



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO:

NAVSEAINST 5450.142
Ser SEA 21/398
30 Sep 09

NAVSEA INSTRUCTION 5450.142

From: Commander, Naval Sea Systems Command

Subj: MISSION AND FUNCTION OF THE SURFACE SHIP LIFE CYCLE
MANAGEMENT ACTIVITY, NORFOLK, VA

Ref: (a) NAVSEAINST 5450.28F
(b) SEA21/SEA04 MOU SER 5400 SEA21/152 of 24 Jun 2008
(c) SEA 00 memo of April 3, 2008; SEA 21 Charter
(d) OPNAVINST 4700.7K
(e) NAVSEA NOTICE 5450 Ser 10/069 of 10 Apr 2009
(f) NAVSEAINST 5400.95 Series
(g) NAVSEAINST 5400.57 Series
(h) NAVSEA TL790-AE-PRO-010 dated January 11, 2008
(i) CRMCINST 4790.1X
(j) COMFLTFORCOMINST 4790.3B
(k) NAVSEANOTE 5400 of 9 Nov 2007
(l) NAVSEA S9081-AB-GIB-010/MAINT; Reliability Centered
Maintenance (RCM) Handbook

Encl: (1) Mission, Functions and Tasks for the Surface Ship Life
Cycle Management Activity, Norfolk, VA
(2) Surface Ship Life Cycle Management Activity Organization
(3) Administrative Management Information

1. Purpose

a. To announce and document the establishment of the Surface Ship Life Cycle Management (SSLCM) Activity, Category 2 detachment, Norfolk, VA in accordance with reference (a).

b. To finalize the realignment of select functions at Naval Sea Logistics Center (NSLC) and their associated resources from Logistics, Maintenance and Industrial Operations Directorate (SEA 04) to Surface Warfare Directorate (SEA 21) in accordance with reference (b).

c. To publish the Activity's mission, functions and tasks.

DISTRIBUTION STATEMENT A: Approved for Public Release;
Distribution is Unlimited.

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2. Background. In an effort to address PEO Ships' span of control issues, SEA 21 was established on June 22, 2007. In accordance with reference (c), the SSLCM activity is planned to be a field-based division, under SEA 21, responsible for providing surface ship lifecycle maintenance management. Lifecycle maintenance management in the form of a complete, well engineered, continuously improving Class Maintenance Plans (CMPs) and process is a proven best maintenance practice. This process, required by reference (d) will align with Naval Sea Systems Command's (NAVSEA) Strategic Business Plan, facilitate the Planning, Programming, Budgeting and Execution (PPBE) process, streamline maintenance processing, and increase maintenance productivity to achieve Surface Ship Expected Service Life (ESL).

3. Cancellation. Reference (e) is superseded and cancelled.

4. Mission. The SSLCM shall provide centralized surface ship lifecycle maintenance engineering, class maintenance planning and management closely aligned to the Surface Type Commander (TYCOM) and NAVSEA needs and priorities. The SSLCM responsibilities are as follows:

a. Serve as the authorized engineering agent for Surface Ship lifecycle maintenance engineering, planning and management per references (f) and (g).

b. Act as the surface ship Class Maintenance Plan (CMP) Development and Management Activity in accordance with reference (h).

c. Develop and issue Baseline Availability Work Packages (BAWPs) for CNO availabilities starting in FY10. Provide scheduled CMP maintenance requirements to the consolidated ships maintenance plan (CSMP) until fully transitioned to BAWPs.

d. Develop the tools and processes to capture and analyze maintenance data history including execution and return cost data for use in supporting the assessment of ongoing maintenance strategies and perform other functions as directed by higher authority.

5. Status and Command Relationships. The SSLCM is a category 2 detachment in an active status under the direction of and reporting administratively to Commander, Naval Sea Systems Command via Deputy Commander, Surface Warfare Directorate, SEA 21. In this capacity, the SSLCM will work closely with the following organizations:

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a. Commander, Naval Surface Forces (CNSF) N43 in support of the Navy Modernization Program and the integration of work packages.

b. Class Squadrons (CLASSRON) as responsible party for the development and issuance of Authorized Work Packages (AWP).

c. Commander, Regional Maintenance Center (CRMC) in support of common Regional Maintenance Center (RMC) policies and processes. As of 1OCT2009, Assistant Deputy Commander for Regional Maintenance Centers (SEA 04Y) will support the Regional Maintenance Centers policies and processes.

d. RMCs in support of CMP maintenance requirements processing and execution.

e. NAVSEA and other Program Executive Offices in support of modernization by integrating maintenance strategies for new or modified systems and equipment, and integrating those requirements and the modernization work into BAWPs.

f. Naval Systems Engineering Directorate (NAVSEA 05) in support of Technical Authority issues.

g. NAVSEA 04 in support of cross-enterprise maintenance and Class Maintenance Plan policy, Maintenance and Material Management (3-M) System support, Reliability Centered Maintenance (RCM) analysis of requirements, Integrated Class Maintenance Plans (ICMP) software management and metrics, configuration management functions, Maintenance Resource System (MRS) and other AIS software development and Alliance support, and the Common Maintenance Planning Working Group (CMPWG), including Maintenance Engineering Reviews (MER).

h. Submarine Maintenance Engineering, Planning and Procurement Activity (SUBMEPP) and Carrier Planning Activity (CPA) for coordination of standard processes for managing CMPs, developing availability work packages and providing technical support.

i. Planning Yards who provide overall Class Configuration Management efforts.

j. Chain of Command:

- 1 Chief of Naval Operations
- 2 Commander, Naval Sea Systems Command

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- 3 Deputy Commander, Surface Warfare Directorate,
SEA 21
- 4 SSLCM Activity, Norfolk, VA

- a. Area Coordination: Commander, U.S. Fleet Forces
Command
- b. Regional Coordination: Commander, Navy Region
Mid-Atlantic

6. Commanded, Tenant, Supported and Supporting Activities and Detachments. The SSLCM will co-locate with NSLC Det Norfolk team in Bldg 13, 2nd deck at Norfolk Naval Shipyard (NNSY) to gain efficiency in executing a common mission. Work space, NMCI computers, IT equipment, phones and general facilities support will be provided by NSLC Det on a cost-reimbursable basis from SEA 21.

7. Functions. The mission, functions and tasks of the SSLCM are listed in enclosure (1).

8. Staffing. Per reference (b), select functions at NSLC and their resources will realign to SEA 21. The plan is to re-designate the organization as a Category I Detachment or Shore Activity per ref (a) as it grows depending on the final size and funding level. The notional SSLCM organization is shown in enclosure (2). Initial staffing at stand-up will include: one military and 25 civilians. Enclosure (3) provides the administrative management information.

9. Action. The SSLCM will accomplish the requirements of this instruction and those listed in enclosure (1) until changed by a Naval Sea Systems Command notice or other appropriate documentation.



K. M. MCCOY

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SUBMEPP
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MISSION, FUNCTIONS AND TASKS
SURFACE SHIP LIFE CYCLE MANAGEMENT
ACTIVITY NORFOLK, VA

Mission Statement:

To provide centralized surface ship life cycle maintenance engineering, planning and management closely aligned with the Surface TYCOM and NAVSEA needs and priorities.

Functions:

Specific functional responsibilities include but are not limited to the following:

1. Maintenance Management and Processing

a. Maintain the accuracy, content, integrity of and accessibility to the Class Maintenance Plans (CMP) in accordance with reference (g).

b. Ensure a robust engineering process within SSLCM that reviews proposed changes (additions, deletions, modifications) before waterfront action is authorized.

c. Implement CMP content changes from authorized engineering agents in accordance with references (f) and (g). Changes that rise to a certain level must be referred back to SEA 21 for adjudication with the NAVSEA Ship Design Manager. That level is defined by the Memorandum of Agreement (MOA) outlining Engineering Agent responsibilities per reference (g) agreement.

d. Ensure each CMP task (scheduled and unscheduled) contains the correct technical specifications, properly referenced, with revision controlled procedure(s).

(1) Review Planned Maintenance System (PMS) Force Revisions (FR) for changes that affect CMP requirements.

(2) Review other CMP referenced procedure(s) and/or master specification(s) for changes, e.g., Naval Ships Technical Manuals (NSTM), Master Specification Catalog (MSC), General Specifications for Overhaul (GSO), Naval Vessel Rules (NVR), etc.

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(3) Make authorized changes resulting from Reliability Centered Maintenance reviews.

(4) Where procedure(s) and/or master specification(s) are missing from the CMP requirement, request assistance from the authorized engineering agent.

e. Update the CMP requirements' man-day and material cost estimates from a review and analysis of actual return costs.

f. Establish and maintain the links between Ship Configuration Logistic Support Information System (SCLSIS) and the CMP to create 4790/2Ks reflecting latest documented ship configuration.

(1) Review weekly SCLSIS change reports for changes that affect CMP requirements.

(2) Request assistance from the cognizant engineering agent (authorized per references (f) and (g) for those changes that may affect CMP requirements.

g. Inform RMC Maintenance Teams and Activities of changes affecting in-process CMP Work Candidates (4790/2K).

h. Enter required CMP changes as a result of Navy Modernization Process (NMP)-approved, authorized modernization Ship Changes (SC) from the Navy Data Environment (NDE).

(1) Obtain CNO Availability Ship Change Authorization letters.

(2) Develop CMP tasks for Program and Fleet Modernization requirements with associated configuration data for each applicable hull.

(3) Collaborate with Regional Maintenance and Modernization Coordination (RMMCO) Offices regarding Ship Change Documents (SCDs) installed outside of CNO Availability and the status of their logistic packages.

(4) Obtain Ship Change logistics packages.

i. Adjudicate Technical Feedback Reports (TFBR) pertaining to Integrated Class Maintenance Plan (ICMP) requirements with the

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authorized Engineering Agent and Ship Design Manager as defined by the SSLCM Technical Director.

j. Perform CMP Processing in accordance with reference (h) as modified by reference (i).

(1) Meet quarterly push milestones.

(2) Accomplish a pre-push screen with Maintenance Teams.

k. Maintain auditable Last Accomplished Dates (LAD) for each scheduled, configuration-based requirement for the history of the task.

l. Analyze MT CMP notifications (concerning deferral, unfunded and technical requests for non-accomplishment) with SSLCM engineering/Technical Director and SEA 05 Ship Design Manager (SDM).

m. Track and report overdue scheduled CMP requirements.

n. Track, trend and report on the planned maintenance backlog for each hull.

(1) Includes condition-based maintenance resulting from CMP assessments.

(2) Provide reports to the chain of command and SEA 05 SDM.

o. Develop engineered ship specific notional availability estimates in support of PPBE. (e.g. Technical Foundation Paper Based Ship Sheets)

p. Support and participate in the following meetings/conferences/Teams:

(1) Availability Hotwash

(2) Semi-Annual Super Hotwash meeting

(3) Maintenance Resource System (MRS) Alliance including Notional Tailoring meetings and annual Data Reviews. This includes the analysis of availability completion data and the projection of engineered requirements for the PPBE process.

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(4) Annual Chief Engineers' conference.

(5) New construction ship design teams to the extent of educating and evaluating plans to develop a class maintenance plan.

q. Represent Information Technology (IT) requirements by recommending functional changes to SMLIS Planning and Configuration Control Boards (CCB).

(1) Assist with MRS, CMP, and Ships' 3-M History integration.

(2) Perform beta and user acceptance testing services.

r. Document processes and work instructions in the CMP Desk Guide (reference (g)).

(1) Maintain process alignment with reference (j) and the Commander, Regional Maintenance Center (CRMC) Fleet Desk Guide (FDG).

s. Continuously improve processes, work instructions and their execution.

2. Life Cycle Maintenance Engineering

a. Serve as Engineering Agent for Surface Ships life cycle maintenance management under the technical direction of the Surface Ship Design Manager in SEA 05.

b. Provide full time resources to the Common Class Maintenance Plan Working Group (CMPWG) in accordance with reference (k).

(1) Lead various CMPWG analysis teams (e.g., Common Maintenance Requirement (CMR) Alignment Maintenance Effectiveness Reviews (MER)) as requested.

(2) Provide members to MER upfront analysis teams.

(3) Using the Common Maintenance Planning-Engineering Analysis (MP-EA) Report (5 years of 3-M data, performance monitoring and CASREP data plus Top Management Attention/Top Management Issues (TMA/TMI), safety, environmental, MFOM and mission criticality considerations) participate in preparing semi-annual MER scheduling letter.

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(4) Perform scheduled analyses in accordance with references (1).

c. Accomplish a sound engineering check on the automated MP-EA prioritized list of high maintenance burden systems.

d. Participate in SEA 04RM scheduled system MERs as Subject Matter Experts (SME).

e. Support SEA21/05D in engineering recommendations for new construction and in-service ships.

f. Support SEA21/05D with respect to the development of new Class Maintenance Plan tasks to support modernization.

g. Implement MER changes approved by the Ship Design Manager.

h. Validate the CMP content through engineering and data analysis:

(1) Establish and accomplish a basic engineering analysis of 3-M trends, e.g., Mean Time Between Failure (MTBF) of Functionally Significant Items (FSI), etc.

(2) Review, analyze and accomplish basic engineering analysis of stored condition monitoring system data and reports (ICAS, etc) for maintenance strategies improvements.

(3) Utilize existing analyses and reports including but not limited to:

(a) Master Assessment Index (MAI)

(b) Ships' 3-M History (3-M) Data Warehouse

(c) Fleet Analysis Center (FAC)

(d) SWE bridgeplot, e.g., churn, etc.

(e) Casualty Reports (CASREP) - deployed, other

(f) Maintenance Activity completion reports

1. Availability Departure Reports

2. Hotwash

(4) Perform age exploration

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- (a) 3-M History - Action Taken Codes ("A", "B", "C")
- (b) Overdue scheduled maintenance
- (c) Installed remote condition monitoring systems
- i. Validate the CMP content through review of requirements in:
 - (1) Joint Fleet Maintenance Manual (JFMM)
 - (2) Technical manuals, instructions, drawings, etc.
 - (3) Naval Ships Technical Manuals
 - (4) NAVAIR requirements
 - (5) Ship Specifications (Ship Design and construction requirements)
 - (6) American Bureau of Shipping (ABS) requirements, where applicable
- j. Based on the above validation process, identify "gaps" in maintenance requirements which impact ship material condition and the ability to achieve Expected Service Life; and in coordination with the Technical Warrant Holder for each system develop and recommend to the Ship Design Manager effective maintenance requirement changes to counteract and correct adverse trends, supported by engineering analysis.
- k. Accomplish Surface-only Proactive Maintenance (SPaM) Analyses in accordance with system priority listing and approved methodologies found in reference (1), e.g., classic or back-fit RCM Analyses, MERs, etc.
- l. Accomplish event analyses following significant CASREPs as an improvement opportunity.
- m. Manage and adjudicate TFBRs that have recommended additions, deletions, and changes to CMP maintenance requirements, in accordance with reference (h).
- n. Participate in the following meetings/conferences:

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(1) MER

(2) TMA/TMI

o. Evaluate the following for their affect on the ICMP:

(1) Configuration changes

(2) ISEA System advisories

(3) Ship Modernization

p. Maintain a record system of engineering activities modeled on the Engineering Services/Design Request process (of Ship Yards and RMCs) where the system is online (for a limited audience), records engineering decision processes, engineering approvals (by name and date), references and customer concurrence as a minimum.

3. Knowledge Management

a. Develop and implement a Knowledge Management Plan that reflects the stakeholder organizations as well as the IT systems that support them. This plan will be mapped to those organizations that support Class Maintenance and Modernization of Surface Ships. These organizations include:

(1) SEA 04 (04R, 04L, and NSLC).

(2) All Surface Ship Planning Yards.

(3) In-Service Engineering Agents located at Navy, other government and contractor facilities.

(4) CLASSRON(s) and SWE CRO Staff for concurrent Project Management tracking.

(5) Regional Maintenance Centers.

(6) PEO IWS.

(7) PEO C4I.

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(8) SPAWAR 04, 05.

(9) Type Commander Staffs (CNSF/CNSL).

(10) Foreign Military Sales program office and Foreign nation DEA liaisons for common platform maintenance best practices (FFGs, LSDs, LCS, etc).

(11) PEO SHIPS Program Offices for new ships.

(12) Military Sealift Command (MSC) for best practices.

(13) PMO-IT

(14) Others

b. Assist in coordination, attend and support the ongoing Hot Wash and Super Hot Wash meetings and processes that have been developed to date as a part of the Surface Warfare Enterprise and more specifically supporting the Future Readiness Team (FRT), Maintenance Continuous Improvement Team (MCIT) and Modernization Process Improvement Team (MPIT). This includes but is not limited to:

(1) Assisting in managing the lessons learned and feedback from completed Surface Ship Availabilities focusing on those which would support ongoing refinement of Ship Class Maintenance Plans.

(2) Promoting feedback from the fleet (e.g., CLASSRONs) in a standard process.

(3) Communicating upcoming CMP changes to stakeholders and users (e.g., maintenance teams)

(4) Developing and reporting Knowledge Management measures of effectiveness.

(5) Work with new construction program offices and major PARMS to assist them on the surface ship ICMP and evaluate their progress towards providing a robust plan at delivery as defined in the shipbuilding contract.

c. Analyze and integrate existing defined maintenance and other metrics into a cohesive and understandable set of measures.

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These measures shall facilitate the effective monitoring of Class Maintenance Plans enabling the goal of ensuring full service life.

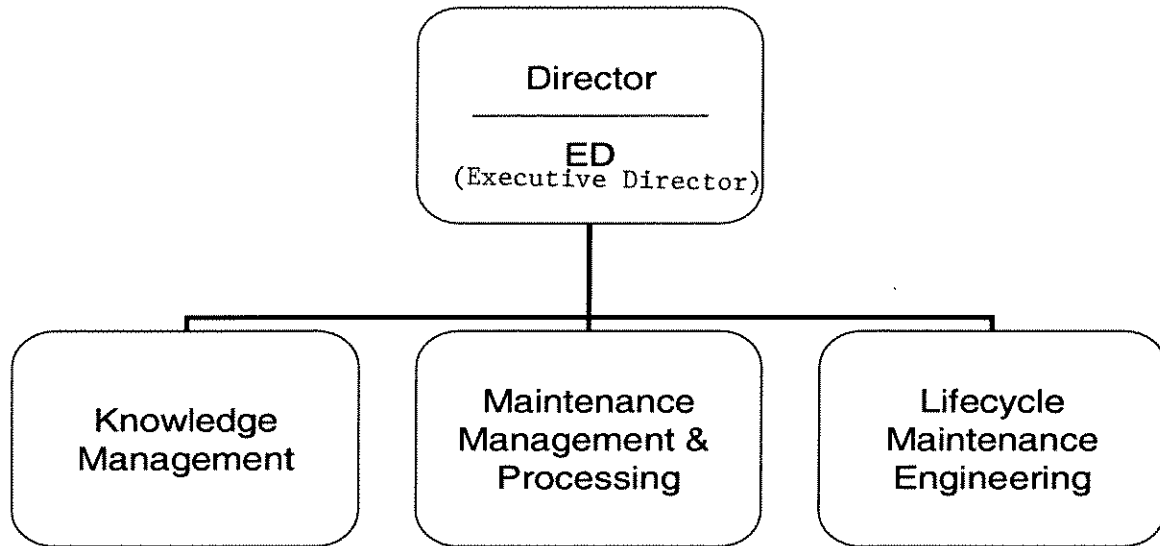
(1) Keep an ongoing record of existing measures/metrics being kept by the Maintenance and Modernization Community under the SWE.

(2) Use these metrics to provide recommendations for improvements in the CMP.

(3) Identify and make recommendations reflecting troubled areas or high cost drivers for slow to degrade systems and/or ship distributed systems.

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**Surface Ship Lifecycle Management
(SSLCM)
Organization**



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ADMINISTRATIVE MANAGEMENT INFORMATION

1. Activity Title: SURFACE SHIP LIFE CYCLE MANAGEMENT ACTIVITY
2. Plain Language Address (PLAD): COMNAVSEASYS COM WASH DC
SEA21/SSLCM
3. Address: The mailing, shipping and billing addresses,
respectively, are as follows:
 - a. Mailing:

Director
Surface Ship Life Cycle Management Activity
Norfolk Naval Shipyard, Building 13
Portsmouth, VA 23709-5000
 - b. Shipping: SAME AS ABOVE
 - c. Billing: SAME AS ABOVE
4. Title of Head of Category 2 Detachment: Director
5. Chain of Command:
 - a. Echelon
 - 1 Chief of Naval Operations
 - 2 Commander, Naval Sea Systems Command
 - 3 Deputy Commander, Surface Warfare (SEA 21)
 - 4 Director, Surface Ship Life Cycle Management Activity
 - b. Area Coordination: Commander, U.S. Fleet Forces Command
 - c. Regional Coordinator: Commander, Navy Region Mid-Atlantic
6. Unit Identification Code: N42812
7. Standard Navy Distribution (SNDL) Code: SNDL code not required
for this activity, due to category 2 classification.
8. Telephone Numbers:
 - a. Commercial: 757-967-2827
 - b. DSN: 387-2827

Enclosure (3)