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VOLUME VI

MAINTENANCE PROGRAMS

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MCF	MDS Confidence Factor
MCMS	METBENCH Calibration Management System
MCV	Maximum Corrected Voltage
MDCO	Maintenance Document Control Office
MDS	Maintenance Data System
MDT	Mean Down Time
MEASURE	Metrology Automated System for Uniform Recall and Reporting
METCAL	Metrology and Calibration
MFOM	Maintenance Figure of Merit
MFOMa	Average Maintenance Figure of Merit
MFOMw	Weighted Maintenance Figure of Merit
MILCON	Military Construction
MILSPEC	Military Specification
MIP	Maintenance Index Page
MJC	Master Job Catalog
MMBP	Maintenance and Modernization Business Plan
MMP	Major Maintenance Period
MMPR	Maintenance and Modernization Performance Review
MOA	Memorandum of Agreement
MOGAS	Motor Gasoline
MP	Modernization Plan
MPR	MDS Performance Rate
MR	Maintenance Requirement
MRC	Maintenance Requirement Card
MRI	Machine-Readable Information
MRMS	Maintenance Resource Management System
MS	Maintenance Standard
MSDS	Material Safety Data Sheet
MSF	Magnetic Silencing Facility
MSRA	Module Screening and Repair Activity
MSS	Major Shore Spares
MTBF	Mean Time Between Failures
MTR	Module Test and Repair
MTRF	Module Test and Repair Facility
NACE	National Association of Corrosion Engineers
NAMTS	Navy Afloat Maintenance Training Strategy
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NAVSEA	Naval Sea Systems Command
NAVSEA 08	Naval Sea Systems Command Nuclear Propulsion Directorate
NAVSEALOGCEN	Naval Sea Logistics Center
NAVSUP	Naval Supply Systems Command
NC	Critical Noise Deficiency
NCR	No Calibration Required
NDE	Navy Data Environment
NDE-NM	Navy Data Environment-Navy Modernization
NDT	Nondestructive Testing
NEC	Navy Enlisted Classification
NFE	No Fault Evident
NGDSC	Navy Global Distance Support Center
NIIN	National Item Identification Number
NMD	Navy Maintenance Database
NMP	Navy Modernization Process
NP	Potential Noise Deficiency

NPBI	NAVSEA Paint Basic Inspector
NPV	Net Present Value
NRMD	Nuclear Regional Maintenance Department
NRPO	Noise Reduction Petty Officer
NSA	Naval Supervisory Authority
NSN	National Stock Number
NSSC	Naval Submarine Support Center
NSTM	Naval Ship's Technical Manual
NSWC	Naval Surface Warfare Center
NSWCCD	Naval Surface Warfare Center, Carderock Division
NSY	Naval Shipyard
NTIRA	Navy Tool for Interoperability Risk Assessment
NUCALT	Nuclear Alteration
NWRMC	Northwest Regional Maintenance Center
OARS	Open Architecture Retrieval System
OEM	Original Equipment Manufacturer
OJT	On the Job Training
OMMS	Organizational Maintenance Management System
OMMS-NG	Organizational Maintenance Management System – Next Generation
OOC	Out Of Commission
OOD	Officer Of the Deck
OPALT	Operational Alteration
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPTAR	Operating Target
OQE	Objective Quality Evidence
ORATA	Other Restricted Availability/Technical Availability
ORDALT	Ordnance Alteration
PARM	Participating Acquisition Resource Managers
PCD	Production Completion Date
PCMS	Passive Countermeasure System
PCP	Process Control Procedures
PDS	Product Data Sheet
PE	Procedure Evaluation
PEO	Program Executive Officer
PEP	Plant Equipment Project
PFR	Periodic Force Revision
PHD	Port Hueneme Detachment
PHNSY	Pearl Harbor Naval Shipyard
PHNSY-IMF	Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility
PIRA	Pre-Inactivation Restricted Availability
PLAD	Plain Language Address Directory
PM	Program Manager
PMR	Periodic Maintenance Requirement
PMS	Planned Maintenance System
PMSCA	Preventive Maintenance System Coordinating Activity
PMT	Performance Monitoring Team
POC	Point of Contact
POM	Pre-Overseas Movement
P-OMMS	Propulsion - Organizational Maintenance Management System
PPE	Personal Protective Equipment
PPR	PMS Performance Rate
PQS	Personnel Qualification Standard

PR	Procedure Review
PRWL	Planned Refit Work List
PSIA	Private Sector Industrial Activity
PSNS	Puget Sound Naval Shipyard
PSNS-IMF	Puget Sound Naval Shipyard and Intermediate Maintenance Facility
PT	Project Team
PVI	Product Verification Inspection
PY	Planning Yard
QA	Quality Assurance
QAR	Quality Assurance Representative
QBR	Quarterly Battery Report
QC	Quality Control
QOS/QOL	Quality of Service/Quality of Life
RAB	Registrar Accreditation Board
RAF	Reporting and Automated Shore Interface Processing Confidence Factor
RAR	Recorded Accomplishment Rate
RCC	Regional Calibration Center
RCM	Reliability Centered Maintenance
RCP	Recommended Change Package
REC	Re-Entry Control
RFI	Ready For Issue
RH	Relative Humidity
RIP	Readiness Improvement Program
RLP	Regional Loan Pool
RMAIS	Regional Maintenance Automated Information System
RMC	Regional Maintenance Center
ROI	Return On Investment
ROV	Repair Other Vessel
RPCCR	Reactor Plant Configuration Change Report
RPPO	Repair Parts Petty Officer
RPSM	Reactor Plant Ship Modification
RSG	Regional Support Group
SC	Ship Change
SCAT	Sub-Category
SCD	Ship Change Document
SCLSIS	Ship's Configuration and Logistics Support Information System
SCN	Ship Conversion Navy
SCP	System Calibration Procedures
SDI	Ship's Drawing Index
SEF	Ship's Equipment File
SEMAT	Systems and Equipment Material Assessment Team
SEMCIP	Shipboard Electromagnetic Compatibility Improvement Program
SEOC	Submarine Engineered Operating Cycle
SERMC	Southeast Regional Maintenance Center
SF	Ship’s Force
SFWL	Ship’s Force Work List
SG	Specific Gravity
SGCP	Shipboard Gage Calibration Program
SHIPALT	Ship Alteration
SHIPMAIN	Ship Maintenance
SHW	Super Hot Wash
SISCAL	Shipboard Instrumentation System Calibration

SKED	Scheduling Software
SLICR	Ship's Logistics Indicator Computerized Report
SMART	Submarine Modernization and Alteration Requirements Tool
SME	Subject Matter Expert
SNAP	Ship's Non-Tactical Automated Data Processing System
SOC	Scope of Certification
SOS	Source of Support
SOVT	System Operation Verification Testing
SPALT	Strategic Systems Programs Alteration
SPAWAR	Space and Naval Warfare Systems Command
SPETE	Special Purpose Electronic Test Equipment
SPETERL	Ship's Portable Electronic Test Equipment Requirements List
SPM	Ship's Program Manager
SPRUCE	Scheduled Preservation Upkeep Coordinated Effort
SRA	Selected Restricted Availability
SRF	Ship Repair Facility
SRF-JRMC	Ship Repair Facility and Japan Regional Maintenance Center
SSBN	Nuclear-Powered Ballistic Missile Submarine
SSES	Ship Systems Engineering Station
SSGN	Nuclear-Powered Guided Missile Submarine
SSM	Ship Systems Manual
SSP	Strategic Systems Programs
SSPC	Society for Protective Coatings
SSPINST	Strategic Systems Programs Instruction
SSR	Ship's Selected Records
ST1	Surface Team One
STAARS	Submarine Technical Assistance Assessment and Reporting System
STAN	Shipboard Electromagnetic Compatibility Improvement Program Technical Assistance Network
STSC	Submarine Technical Support Center
SUBMEPP	Submarine Maintenance Engineering, Planning and Procurement Activity
SUBSAFE	Submarine Safety
SUPSHIP	Supervisor of Shipbuilding
SUPSHIP NN	Supervisor of Shipbuilding Newport News
SURFMEPP	Surface Maintenance Engineering Planning Program
SURFOR	Surface Force
SWE	Surface Warfare Enterprise
SWLIN	Ship Work List Item Number
SWRMC	Southwest Regional Maintenance Center
SWS	Strategic Weapon System
SYSCOM	Systems Command
TA	Technical Analyst
T/A	Type of Availability
TAAS-INFO	Tech Assist, Assessments and Scheduling Information
TAMS	TYCOM Alteration Management System
TAMS	Test and Monitoring System
TAR	Technical Analysis Report
TAT	Technical Assessment Team
TAVR	Technical Assistance Visit Report
TCV	Total Corrected Voltage
TDC	TYCOM Discretionary Change
TDMIS	Technical Document Management Information System
TEMPALT	Temporary Alteration

TFBR	Technical Feedback Report
TFBR H/T	Technical Feedback Report History Tracking
TMA	Top Management Attention
TMDE	Test, Measurement and Diagnostic Equipment
TMDER	Technical Manual Deficiency/Evaluation Report
TMI	Top Management Issues
TOMA	Technical Onboard Monitoring Assist
T(pf)	Time (problem free)
TPOC	Technical Point of Contact
TPS	Test Program Set
TRF	TRIDENT Refit Facility
TRID	TRIDENT Alteration
TRIPER	TRIDENT Planned Equipment Replacement
TRIREFFAC	TRIDENT Refit Facility
TRS	Technical Repair Standard
TSRA	Total Ship's Readiness Assessment
TVG	Temperature Voltage Gassing
TWH	Technical Warrant Holder
TYCOM	Type Commander
TYKIT	TYCOM Alteration Kit
TZ	Type Zero
UIC	Unit Identification Code
UPCP	Universal Process Control Procedure
URO	Unrestricted Operation
VIDS/MAF	Visual Information Display/Maintenance Action Form
WC	Work Center
WCS	Work Center Supervisor
WCWL	Work Center Work List
WFD	Work Force Development
WFT	Wet Film Thickness
WP	Work Package
WPER	Work Package Execution Review
WPIC	Work Package Integration Conference
WPS	Work Package Supplement
WSS	Weapons System Support

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VOLUME VI

CHAPTER 2

FLEET TECHNICAL ASSISTANCE

REFERENCES.

(a) COMUSFLTFORCOM/COMPACFLTINST 3501.3 - Fleet Training Continuum

(b) OPNAVINST 3000.15 - Fleet Response Plan (FRP)

LISTING OF APPENDICES.

A Area Regional Maintenance Center Fleet Technical Assistance Contact Information

B Sample Technical Assistance Visit Report (TAVR) Message

C Sample E-MAIL Technical Assistance Visit Report (E-TAVR)

2.1 PURPOSE. This chapter provides policy, procedures and guidance regarding utilization of Fleet Technical Assistance (FTA) program resources in support of all surface ships, aircraft carriers, submarines and craft. Commander, U. S. Fleet Forces Command and Commander, U.S. Pacific Fleet (COMPACFLT) Fleet Maintenance Officers (N43) will ensure that appropriate Fleet resources are available to provide technical assistance to the Naval operating forces under their cognizance.

2.2 FLEET TECHNICAL ASSISTANCE DEFINITION. FTA is the help that surface ships, aircraft carriers, submarines and craft request when they are unable to resolve equipment or software deficiencies using their own ships resources or other means available within their Strike Group. Paragraph 2.4.2 of this chapter lists FTA program exclusion items. Use of Regional Maintenance Center (RMC) or RMC-obtained resources for other purposes, such as non-Ship's Force repairs, assessments, Board of Inspection and Survey inspections, etc., is not considered FTA but is addressed elsewhere in this manual or other policy guidance. All FTA requests will be responded to by the RMCs as defined in paragraph 2.4.1 of this chapter.

2.3 FLEET TECHNICAL ASSISTANCE EXCLUSION AREAS. RMCs are not responsible for technical assistance in the following areas:

a. Naval Sea Systems Command (NAVSEA) 08 cognizant equipment.

b. TRIDENT missile weapons systems.

c. Aircraft.

d. Catapults and arresting gear - Aircraft Launch and Recovery Equipment.

e. Ordnance and munitions.

f. Submarine Safety systems/components.

g. Nuclear weapons.

h. Special clearance carry-on equipment.

i. Undersea and land-based surveillance equipment.

j. Flight deck certification related systems and equipment.

k. Diver life support systems.

l. Non-Program of Record (pre-prototype) programs.

m. Naval Supply Systems Command (NAVSUP) (e.g., Navy Cash)

n. Navy Personnel Command (NAVPERS) (e.g., RAPIDS, MIAP, NSIPS)

2.4 FLEET TECHNICAL ASSISTANCE POLICY.

NOTE: WHEN CONTACTING THE NAVY GLOBAL DISTANCE SUPPORT CENTER (NGDSC) OR AN AREA RMC, UTILIZE SECURE COMMUNICATIONS AS APPROPRIATE TO MAINTAIN SECURITY OF CLASSIFIED EQUIPMENT AND OPERATIONAL PARAMETERS.

2.4.1 Requesting Assistance. It is important that ships develop and exercise self-sufficiency for shipboard system maintenance to the fullest extent possible. If unable to resolve a technical problem internally, the ship shall contact the NGDSC, who will route their request to the cognizant Area RMC. If unable to contact the NGDSC, contact the Area RMC. Ships will use the following specific procedures when requesting FTA:

a. When a technical assistance requirement is identified, contact the NGDSC as described in paragraph 2.4.1.b of this chapter. The NGDSC will then record the FTA request and forward to the appropriate RMC as outlined in paragraph 2.7.2 of this chapter using the contact information in Appendix A. Provide pertinent information listed in paragraph 2.4.2 of this chapter.

b. The NGDSC can be contacted 24-hours a day via the worldwide web, by E-mail, via Naval message or via toll-free numbers as follows:

(1) SIPR Web site: WWW.ANCHORDESK.NAVY.SMIL.MIL

(2) NIPR Web site: WWW.ANCHORDESK.NAVY.MIL

(3) SIPR E-mail: HELP@ANCHORDESK.NAVY.SMIL.MIL

(4) NIPR E-mail: HELP@ANCHORDESK.NAVY.MIL

(5) Message PLAD: ANCHOR DESK NORFOLK VA//JJJ//

(6) Telephone: Comm 1-877-418-6824, DSN 510-428-6824

2.4.2 Required Fleet Technical Assistance Request Information. A Casualty Report (CASREP) solely to establish an FTA, is not required. When requesting Technical Assistance, the following information is **necessary** to assist in a timely and accurate response:

a. Job Control Number (JCN) (required) and Casualty Report (if applicable) numbers.

b. Equipment identification: (Noun name, nomenclature, model, MK/MOD, etc.).

c. Equipment failure mode: Detailed description of the nature of failure or casualty, including symptoms and operational condition at time of casualty, current symptoms and indications and any other relevant information available to assist in diagnosing the problem.

d. Repair actions taken to date: [Include any extra-unit assistance (e.g., Ship Repair Facility, Tender, etc.)].

e. Parts status: (Indicate spare parts required, estimated delivery date, document numbers, document status, etc., if known).

f. Technical manual: (NAVSEA/NAVSHIPS/NAVORD Technical manual number or Commercial Off-The-Shelf manufacturer's publication identification, if available).

g. Dates: (Include earliest through latest possible dates assist is required. Provide alternate dates if possible).

h. Location: (Country, port, Naval Base, pier, berth, etc.).

i. Contact information: (Ship/staff Point of Contact name(s) and rate/rank, DSN/INMARSAT/commercial phone numbers, FAX number, SIPRNET/NIPRNET E-mail addresses).

j. Manufacturer of equipment for which assistance is required (if known).

k. Equipment Allowance Parts List/Record Identification Number.

l. Commanding Officer assessment as to effect on ship’s mission in the event Distance Support is unsuccessful.

2.4.3 Chief of Naval Operations Availability Fleet Technical Assistance Procedures. Fleet units may request technical assistance while in a Chief of Naval Operations scheduled maintenance availability. The request must be submitted to the cognizant Area RMC, which will coordinate with the appropriate Naval Supervising Authority (NSA) (if not the same as the cognizant Area RMC) for technical assistance related to systems/equipment that are under the NSA's cognizance or are part of an availability work package. When the cognizant Area RMC is the NSA, the RMC will provide technical support. If not the NSA, the cognizant Area RMC may also do so, as necessary/coordinated with the NSA.

2.4.3.1 Initial Response. The initial response to all FTA requests will be via Distance Support. If the Operational Commander or Type Commander (TYCOM) determines on-site support is necessary, it is incumbent on them to inform the cognizant area RMC that on-site support is required.

2.4.3.2 On-Site Support. In a port without a RMC or underway, if Distance Support is determined unsuccessful by the RMC, the Operational Commander or TYCOM will determine whether the cognizant Area RMC will transition to on-site assistance. In a port with a RMC, the RMC may determine transition to on-site support, as prioritized by guidance in paragraph 2.7.4a. of this chapter**.**

2.5 COMPLETION.

NOTE: THERE WILL BE OCCASIONS WHEN AN UNDERWAY SHIP MAY NOT REQUIRE ALL SYSTEMS TO BE FULLY OPERATIONAL. SUCH SYSTEM DEFICIENCIES MAY BE THE SUBJECT OF A CASREP OR THEY MAY ONLY BE DOCUMENTED IN THE SHIP'S CURRENT SHIP'S MAINTENANCE PROJECT.

2.5.1 Fleet Technical Assistance Completion. To complete the FTA the ship must concur that the cognizant RMC has completed one of the following:

a. The fault is resolved.

b. Parts identified to resolve the fault.

c. Original fault troubleshooting is complete and the deficiency is identified (i.e., Ship understands what needs to be repaired).

2.5.2 Transition to Repair. A completed FTA may require a subsequent deferral (TA-1, TA-2) for repair activity action or Ship's Force corrective maintenance (TA-4).

2.6 RESPONSIBILITIES.

2.6.1 Ship's Commanding Officer. Ship's Commanding Officer will:

a. Ensure all FTA requests are accurate, complete and timely.

b. Ensure all FTA requests reference a JCN and contain a detailed problem description in accordance with paragraph 2.4.2 of this chapter to enable technical assistance personnel to adequately research the problem and provide timely and accurate technical assistance. Ensure the 2-kilo is up-lined.

c. For FTA requests associated with systems that are not required to meet current/projected mission tasking, ensure associated CASREP and/or 2-Kilo address whether or not on-site assistance will be required if Distance Support is unable to resolve the issue.

d. Ensure that TYCOM, Immediate Superior In Command (ISIC) and Operational Commander are kept informed of technical issues and technical assistance requests in accordance with existing guidance.

e. While a ship is underway or in another port without a RMC, ensure Distance Support alternatives are exhausted before on-site technical assistance is requested. This policy is in place to ensure satisfactory crew and technical assistance personnel Distance Support procedure training and proficiency so they are able to efficiently use Distance Support when the ship is deployed.

f. Ensure Ship's Force technicians who are qualified on the systems/equipment in question are available to support technical assistance personnel.

g. Immediately upon completion of an on-site FTA visit per paragraph 2.5.1 of this chapter, the Fleet unit will release the FTA personnel. When redirection of the same personnel to other problems is desired, the Fleet unit will coordinate with the cognizant Area RMC.

h. Ships will establish a central, secure E-mail account that will be available to all appropriately cleared technical assistance personnel who visit the ship. The account will be used by visiting technical representatives to communicate with their home office or detachment for technical support/information. The account will be RMCTECHASSIST@Ship.navy.smil.mil where "Ship" is the name of the vessel.

i. Ship will issue arrival/departure message keeping all apprised of technical representative movement.

2.6.2 Regional Maintenance Center Commanders. RMC Commanders will ensure:

a. Sufficient capability exists to provide timely response to all requests for technical assistance, either with RMC personnel or other sources of support. The RMC is responsible for coordinating the response from other sources of support as detailed in paragraph 2.6.3 of this chapter.

b. RMC mission funds are used to fund all FTA efforts in accordance with paragraph 2.7.4 of this chapter.

c. Technical support is provided to Fleet units in accordance with this directive. In the event there is a work priority conflict, the Area RMC will coordinate resolution with the appropriate TYCOM, Operational Commander or Fleet Maintenance Officer Staff, as necessary.

d. The initial response to FTA requests is via Distance Support whether in port or at-sea. The use of Distance Support while the ship is in a port with a RMC is encouraged, although not required. It is a tool that can be utilized by the RMC in order to prioritize work assignments and service a wider customer base. On-site support while a ship is in a port with a RMC can allow for quicker identification of the problem and training of Ship's Force technicians. When Distance Support fails to meet the requirements of paragraph 2.5.1 of this chapter, the distance support provider will notify the cognizant Area RMC at the earliest opportunity. The cognizant Area RMC will determine what level of additional support is required and if on-site assistance is appropriate, based on guidance in paragraph 2.7.4.1 of this chapter. If appropriate, the Area RMC will provide on-site FTA from RMC resources or coordinate provision of on-site support from other government/contractor organizations as discussed in paragraph 2.6.3 of this chapter.

e. Personnel responding to a request for technical assistance are thorough in their review of the specific technical problem, including system trouble shooting, fault isolation, root cause analysis, failed parts identification, logistic support and system restoration assistance while imparting the maximum amount of onboard maintenance training to Ship's Force personnel. Troubleshooting shall be conducted in accordance with Volume V, Part I, Chapter 2, paragraph 2.4 of this manual.

f. Acknowledgment and response to all FTA requests within 24 hours, via phone conversation, e-mail or Naval Message.

g. Personnel providing on-site technical assistance keep the cognizant ship's department head or designated representative informed of the scope of the problem and the recommended corrective action.

h. A message Technical Assistance Visit Report (TAVR) (Naval), in the format provided in Appendix B, is required at the completion of an on-site FTA anytime one or more of the following criteria are met:

(1) Personnel or Equipment safety issue.

(2) Submarine FTA.

i. An E-mail TAVR (E-TAVR), in the format provided in Appendix C, is required at the completion of an on-site FTA on Surface Force Ships/Carriers anytime one or more of the following criteria are met:

(1) C3/C4 CASREP.

(2) Repetitive system/equipment failure and/or long term improvement recommendations.

(3) FTA responsibility passed to another RMC or other Source of Support.

(4) Loss of mission capabilities. (e.g., AAW, MOB, ASW).

(5) Significant follow-on repair recommendations.

(6) High visibility.

j. Task other Source of Support provider who responds to an on-site FTA, coordinated by his/her RMC, to submit a TAVR as required by paragraph 2.6.3.e of this chapter or task them to provide the technical information necessary for the cognizant RMC to generate a TAVR**.**

k**.** Submission of a message report if an on-site assist visit is terminated. Technicians who are not adequately supported by Ship's Force personnel shall immediately notify the ISIC/TYCOM. If the lack of support by Ship's Force personnel cannot be resolved, then the technicians are authorized to depart the ship and terminate the visit. Termination of the ship visit under these circumstances will be detailed in a follow-up message to the appropriate TYCOM/ISIC with information to the appropriate Fleet Commander (N43).

l. Except for Ship Repair Facility (SRF) - Japan Regional Maintenance Center (JRMC), track all requests for FTA using approved FTA software. Currently, this is the Tech Assist, Assessments and Scheduling Information (TAAS-INFO) for surface ships, and Submarine Technical Assistance Assessment and Reporting System (STAARS) for submarines.

m. Ensure Submarine Warfare Federated Tactical System/Non-Propulsion Electronic System technicians providing FTA to submarines with systems/subsystems/equipment postured at the Sensitive Compartmented Information level are eligible for access to Sensitive Compartmented Information based on a current Single Scope Background Investigation.

2.6.3 Other Source of Support Providers. Other source of support providers include any non-Area RMC activity that responds to a technical assistance request. Examples of other source of support providers include: Naval Warfare Center, Original Equipment Manufacturer, commercial repair firms, Systems Command, non-RMC Naval Shipyard, Propulsion Plant Engineering Activity, etc. Other source of support providers will:

a. Acknowledge receipt of FTA assignment to the tasking Area RMC and the requesting unit.

b. First, use Distance Support to resolve the problem. Provide the tasking Area RMC with timely Distance Support status and results.

c. Coordinate with the tasking Area RMC and execute an on-site technical assist if Distance Support is unable to resolve the problem. Ensure personnel providing on-site technical assistance are thorough in their review of the specific technical problem, including system trouble shooting, fault isolation, root cause analysis, failed parts identification, logistic support and system restoration assistance, while imparting the maximum amount of onboard maintenance training to Ship's Force personnel.

d. Ensure that personnel providing on-site technical assistance keep the cognizant ship's department head or designated representative and Area RMC informed of the scope of the problem and the recommended corrective action.

e. At the completion of on-site technical assistance, comply with administrative requirements addressed in paragraph 2.8 of this chapter within 5 working days of the visit completion.

2.6.4 Navy Global Distance Support Center Fleet Technical Assistance Request Processing Procedure. Initial FTA requests received by the NGDSC will be recorded by a Customer Service Representative. The Customer Service Representative must ensure the request is sent to the cognizant Area RMC (if different from the homeport RMC) and notify the cognizant area RMC. This will enable the cognizant Area RMC to commence immediate action on the FTA request.

2.7 REGIONAL MAINTENANCE CENTERS.

2.7.1 Regional Maintenance Centers. RMCs will serve as the primary source of Fleet Technical Assistance. For purposes of this specific FTA policy, use of the term "RMC" includes Regional Support Group New London and TRIDENT Refit Facility Kings Bay since these two activities will be serving as “Area RMCs” in providing FTA as noted in Table 2-1 of this chapter.

2.7.2 Area Regional Maintenance Center Area of Responsibility Assignments. Area RMC Area of Responsibility (AOR) assignments are listed in Table 2-1 below. Figure 2-1 graphically supplements Table 2-1 in depicting the AOR for each RMC. The AOR in which a ship is operating at the time an FTA request is initiated will dictate which Area RMC is responsible for coordinating/providing that FTA (becomes the “cognizant Area RMC”). If a ship is located in an AOR other than their homeport AOR, and the ship initiates a routine FTA request (one that does

not require the cognizant Area RMC to expend travel or overtime funds for on-site support in the event Distance Support is unsuccessful), the homeport Area RMC will assume cognizance of that FTA request and accomplish it as a routine priority via Distance Support or, if necessary, via on-site FTA when the ship returns to homeport.

AREA RMC	AREA OF RESPONSIBILITY (AOR)
Southwest Regional Maintenance Center (SWRMC), San Diego, CA	Ships, SSNs*, aircraft carriers and craft in port or operating off the U.S. West Coast from the San Francisco Bay area south to the southern point of South America and selected mine warfare systems worldwide.
Puget Sound Naval Shipyard & Intermediate Maintenance Facility (IMF), Bremerton, WA	Ships, SSNs, aircraft carriers and craft in port or operating in the PACNORWEST area from North of San Francisco, CA, to northern Pacific/Alaska area and all SSBN/SSGN units in PACFLT.
Pearl Harbor Naval Shipyard & IMF, Pearl Harbor, HI	Ships, aircraft carriers, craft and SSN 688 and SSN 774 Class submarines in port or operating in the MIDPAC area and all non-SSBN/SSGN submarines (excluding SSN 21 Class) and submarine tenders operating in the Seventh Fleet AOR (excluding those SSN 688 and SSN 774 Class submarines operating in port or operating out of Diego Garcia, UK).
Ship Repair Facility (SRF) and Japan Regional Maintenance Center (JRMC), Yokosuka, Japan	Ships, aircraft carriers and craft in port or operating in the Seventh Fleet AOR.
Mid-Atlantic Regional Maintenance Center (MARMC), Norfolk, VA	Ships, aircraft carriers and craft in port or operating in the Atlantic Ocean from Charleston, SC, latitude northward extending to the Azores longitude eastward. Submarines* in port and all SSN 688 and SSN 774 Class submarines operating in the Second, Fourth, Fifth and Sixth Fleet AOR and those submarines operating in port or out of Diego Garcia, UK, excluding those submarines in port or in the Groton and New London, CT regional waters.
Forward Deployed Regional Maintenance Center (FDRMC) Naples, Italy FDRMC Detachment Bahrain FDRMC Detachment Rota, Spain	Ships, aircraft carriers and craft in port or operating from the Azores longitude eastward to include the Fifth Fleet and Sixth Fleet AOR.
Regional Support Group/Submarine Technical Support Center (STSC) Groton, CT	SSN 688 and SSN 774 Class submarines* in port or operating in the Groton/New London, CT regional waters.
TRIDENT Refit Facility, Kings Bay, GA	All Atlantic Fleet SSBN/SSGN units.
Southeast Regional Maintenance Center (SERMC), Mayport, FL	Ships, aircraft carriers and craft in port or operating south of the Charleston, SC latitude in the Atlantic Ocean to the southern tip of South America.

* Puget Sound Naval Shipyard & Intermediate Maintenance Facility has responsibility for all SSN 21 Class submarines regardless of location.

Table 2-1 RMC Area of Responsibility Assignments

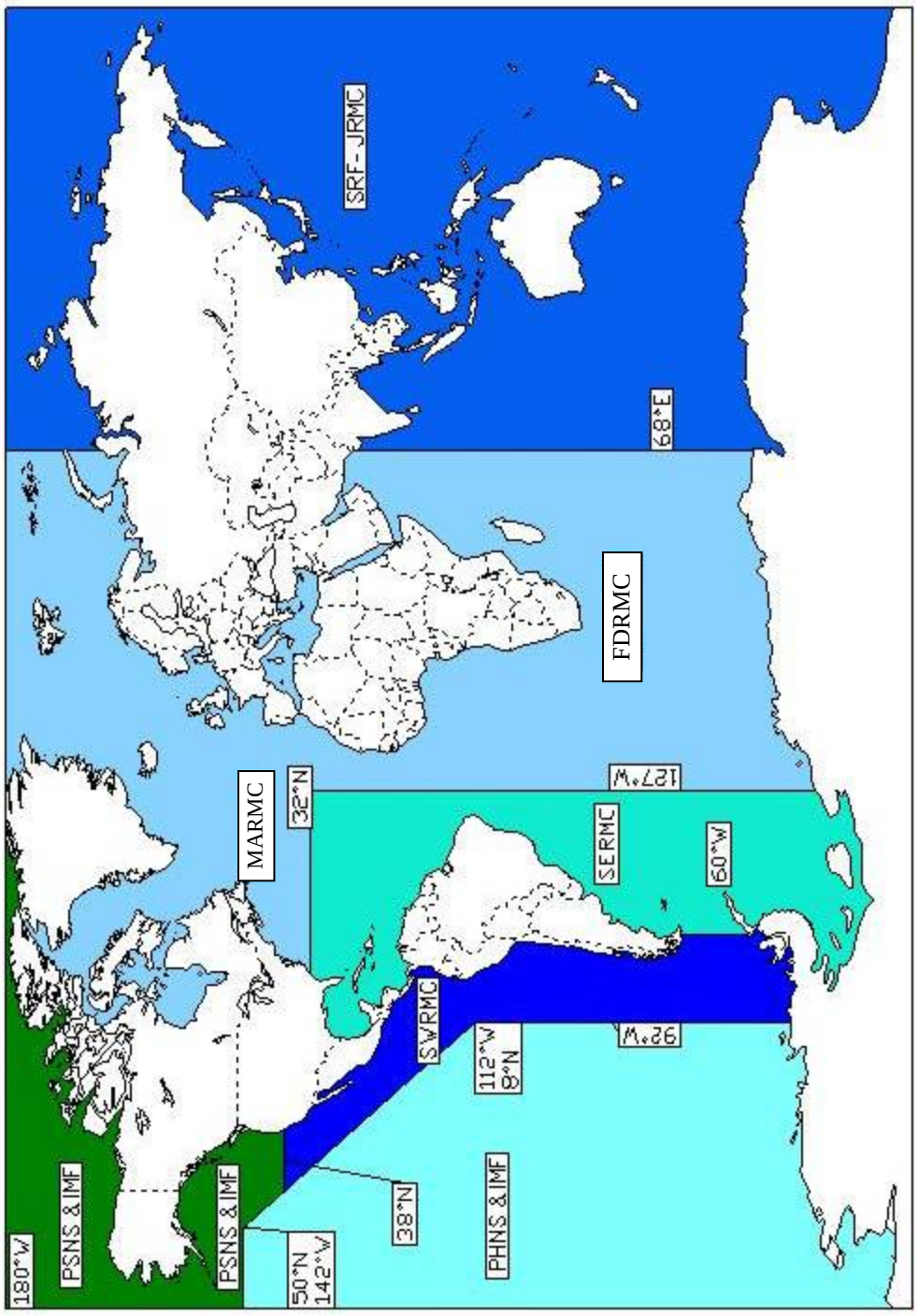

Figure 2-1 RMC Area of Responsibility

2.7.3 Considerations for Providing Assistance.

2.7.3.1 Distance Support. Costs to provide FTA can be dramatically reduced using Distance Support especially when a ship is underway or is not in a port with a RMC. Distance Support may include various forms of two-way communication such as telephone, email, web "chat", streaming video, etc. Additionally, its use has facilitated more effective use of limited technical resources to service a larger number of customers more efficiently. Normally, the cognizant Area RMC will have a subject matter expert available to respond to FTA requests via Distance Support, but in the event that such an expert is not readily available, the cognizant Area RMC is encouraged to contact another Area RMC to enlist their assistance in providing such Distance Support. In support of the Chief of Naval Operation's guidance to shift away from a risk averse culture in the Navy, not all FTA requests will be responded to with on-site support. However, the Operational Commander or TYCOM may direct immediate on-site support, if warranted.

2.7.3.2 On-Site Support. If the use of on-site support is warranted, the cognizant Area RMC will provide or obtain personnel to affect on-site assistance. When a ship transits from one AOR to another, the cognizant area RMC will validate the need for on-site support before transitioning from Distance Support provided by the homeport. The cognizant Area RMC will take into account the ship's operational schedule, as well as ship, ISIC, Operational Commander and TYCOM requirements, when determining if and at what point to shift from Distance Support to on-site support. Paragraph 2.7.4.1 of this chapter provides additional specific guidance regarding when on-site support will be provided and the prioritization of such responses should there be multiple requirements for the same FTA support personnel.

2.7.3.3 Fleet Technical Assistance Support Transfer and Acceptance. The cognizant Area RMC is responsible for providing or obtaining FTA support and is responsible for its completion. If the cognizant area RMC has neither the capability nor capacity to provide the FTA support required, the cognizant RMC will request FTA support from another source of support.

2.7.3.4 Transferring Regional Maintenance Center. The RMC transferring the FTA will transmit a TAVR via appropriately classified email or Naval message, using the samples provided as Appendix B or C of this chapter, synopsizing actions taken to date on the FTA after reaching agreement with another source of support to accept responsibility for the FTA. The accepting source of support and new Point of Contact information will be identified in the TAVR. For Surface Ships and Carriers, the transferring RMC will document all time and actions taken and will pass the task to the accepting source of support in approved FTA software. For submarines, the ship's homeport will broker the 2-kilo to the accepting source of support.

2.7.3.5 Accepting Source of Support. The accepting source of support for the FTA assumes responsibility to provide the necessary support to resolve the FTA. If the source of support cannot resolve the FTA, they shall request the cognizant Area RMC obtain the necessary support to resolve the FTA. The accepting source of support will also document all time and actions taken related to the FTA, and inform the cognizant Area RMC on the status of the FTA.

2.7.3.6 Support Coordination. If another source of support is required, close coordination should be maintained between the supporting activity providing such assistance and the cognizant Area RMC to ensure the highest level of responsiveness is being provided. Assistance from another Area RMC does not abrogate the cognizant Area RMC's responsibility to ensure completion of the FTA request and the cognizant Area RMC retains full responsibilities as outlined in this manual.

2.7.4 Funding.

a. Expenditure of funds for on-site FTAs has been significantly reduced by increased use of Distance Support. The source selection to provide on-site FTA must consider overall resource availability and total cost to the Government (e.g., labor, travel, per diem, administration, etc.) balanced against criticality of need and required speed of response. Resources to meet on-site FTA needs should be considered in the following priority order:

(1) cognizant Area RMC personnel.

(2) other Area RMC personnel.

(3) other government resources.

(4) private sector.

b. If personnel from another Area RMC are used to support the FTA requirement, the Area RMC providing the personnel will pay all costs for those personnel including base salary, overtime, travel and per diem. For all other sources of support, the cognizant Area RMC will pay all costs for providing the on-site support. Area RMCs will notify the Fleets if their total FTA related expenditures in support of ships home ported in other RMC locations become significant. The Fleets will review these submissions and determine if funds transfer(s) are required to ensure RMC mission completion.

NOTE 1: IN ACCORDANCE WITH REFERENCE (a), FORWARD DEPLOYED NAVAL FORCES UNDER C7F CONTINUOUSLY OPERATE WITHIN THE INTEGRATED/ SUSTAINMENT PHASE OF THE SEVENTH FLEET TRAINING PLAN IN SUPPORT OF REFERENCE (b) UNLESS IN A CNO AVAILABILITY.

NOTE 2: IF U.S. COAST GUARD OR FOREIGN NAVY VESSELS ARE PART OF A CARRIER STRIKE GROUP OR EXPEDITIONARY STRIKE GROUP, EITHER IN WORK-UP PHASE OR DEPLOYMENT, THEY WILL RECEIVE FTA SUPPORT PRIORITIZATION AS THOUGH THEY WERE UNITED STATES NAVY SHIPS (PRIORITIES 1-7 APPLY). REIMBURSEMENT FOR ALL COSTS TO PROVIDE SUCH FTA SERVICES WILL BE IN ACCORDANCE WITH THE MEMORANDUM OF AGREEMENT/MEMORANDUM OF UNDERSTANDING THAT IS NORMALLY SIGNED BETWEEN THE SERVICES/GOVERNMENTS WHEN SUCH JOINT OPERATIONAL ARRANGEMENTS EXIST.

2.7.4.1 On-Site Support. If Distance Support is unsuccessful or if the nature of the FTA request warrants immediate transition to on-site support, the cognizant Area RMC will coordinate and provide such on-site support as prioritized below:

Priority 1 - Casualties requiring clear and immediate action to offset personnel safety hazards and/or catastrophic equipment damage.

Priority 2 - Services to deployed ships. If resource constrained when there are multiple requirements to provide on-site support to deployed ships, prioritization of response will be:

(1) SSBN FTAs;

(2) FTAs associated with a CASREP as determined by the TYCOM;

(3) Other FTA requirements as determined by the Operational Commander and TYCOM.

Priority 3 - Services to ships that are classified as within the pre-deployment or post-deployment part of the Sustainment Phase of reference (b). If resource constrained when there are multiple requirements to provide on-site support, prioritization of response will be:

(1) SSBN FTAs;

(2) FTAs associated with a CASREP as determined by the TYCOM;

(3) Other FTA requirements as determined by the Operational Commander and TYCOM.

Priority 4 - Services to ships that are classified as within the Integrated phase of reference (b), or ship's that are classified as Independent Unit Ready for Tasking. If resource constrained when there are multiple requirements to provide on-site support, prioritization of response will be:

(1) SSBN FTAs;

(2) FTAs associated with a CASREP as determined by the TYCOM;

(3) Other FTA requirements as determined by the Operational Commander and TYCOM.

Priority 5 - Services to ships that are classified as within the Basic phase of reference (b). If resource constrained when there are multiple requirements to provide on-site support, prioritization of response will be:

(1) SSBN FTAs;

(2) FTAs associated with a CASREP as determined by the TYCOM;

(3) Other FTA requirements as determined by the Operational Commander and TYCOM.

Priority 6 - Other U.S. Navy FTA requests not addressed in one of the above priorities (e.g., FTA support during Chief of Naval Operations availabilities addressed in paragraph 2.4.3 of this chapter).

Priority 7 - Technical assistance requests from non-Navy organizations (e.g., Coast Guard, U.S. Army, U.S. Air Force, Foreign Military Sales, etc.).

2.8. POST-FLEET TECHNICAL ASSISTANCE ADMINISTRATIVE REQUIREMENTS.

a. At the conclusion of an on-site technical assistance visit, the cognizant Area RMC representative(s) will assist the ship in completing the 2-Kilo and provide a final debrief to the ship's cognizant Department Head, or his/her designated representative, prior to departing the ship. Information collected for the FTA shall be uploaded to 3M history**.**

b. A TAVR is required at the completion of on-site FTA visits as addressed in paragraph 2.6.2.h and 2.6.2.k of this chapter**.** TAVRs should be submitted within 5 working days of visit completion.

APPENDIX A

AREA REGIONAL MAINTENANCE CENTER FLEET TECHNICAL ASSISTANCE CONTACT INFORMATION

AREA RMC	COVERAGE HOURS	PHONE	E-mail/Message PLADs
Mid-Atlantic Regional Maintenance Center (MARMC) Norfolk, VA	24/7/365	Comm: 757-443-3872 Secure: 757-443-3872, ext 2451 CDO: 757-443-3663	NIPRNET: marmc_tsdo@navy.mil SIPRNET: nssa_sipr_tsdo@navy.smil.mil MSG PLAD: MARMC NORFOLK VA
Forward Deployed Regional Maintenance Center Naples, Italy (FDRMC NAPLES)	0600-1800 WEEKDAYS 0800-1200 WEEKENDS & HOLIDAYS CDO after hours	Comm: 011-39-081-568-7857 DSN: 314-626-7857 Fax: 011-39-081-568-7866 CDO: 011-39-335-725-1657	NIPRNET: FDRMCNAPLESCDO@EU.NAVY.MIL SIPRNET: FDRMCNAPLESCDO@EU.NAVY.SMIL.MIL MSG PLAD: FDRMC NAPLES IT//
FDMRC Detachment Bahrain	Hours: 0730-1600 Sunday-Thursday (TD available after normal hours)	Comm: 011-973-17-853-777 DSN: 318-439-3777 TD: 011-973-3-945-9128 Fax: 011-973-17-854-447	NIPRNET: M-BA-FDRMCBAHASST@ME.NAVY.MIL SIPRNET: M-BA-FDRMCBAHASST@ME.NAVY.SMIL.MIL MSG PLAD: FDRMC DET BAHRAIN//
FDRMC Detachment Rota, Spain	Hours: 0730-1600 Monday-Friday (TD available after normal hours)	Comm: 011-34-956-822-725 DSN: 314-727-2725 TD: 011-34-606-705-865	NIPRNET: RMCDETROTA.TECHASSIST@EU.NAVY.MIL SIPRNET: RMCDETROTA.TECHASSIST@EU.NAVY.SMIL.MIL MSG PLAD: FDRMC DET ROTA SP//

AREA RMC	COVERAGE HOURS	PHONE	E-mail/Message PLADs
Regional Support Group Groton/Submarine Technical Support Center (STSC) Groton, CT	0700-1630 WEEKDAYS CDO after hours	Comm: 860-694-7872 Admin: 860-694-4714 DSN: 694-7872/4714 STSC groton CDO after hours: 860-625-3230	MSG PLAD: COMREGSUPPGRU STSC GROTON CT NIPRNET: nwln_stsc_prod@navy.mil
Puget Sound Naval Shipyard & IMF (North West Regional Maintenance Center) (NWRMC) Bremerton, WA	0630-1500 WEEKDAYS CDO - 24/7	425-304-5449 DSN: 727-5449 CDO: 425-870-0042 Everett 360-340-0106 Bremerton	NIPRNET: techassistnw@navy.mil MSG PLAD: NAVSHIPYD AND IMF PUGET SOUND WA//210/290//
Pearl Harbor Naval Shipyard and IMF Hawaii Regional Maintenance Center (HRMC) Pearl Harbor, HI	24/7/365	Comm: 808-630-7762 DSN: 315-473-0129 Code 210 DO: 808-630-7762	NIPRNET: hrmc.techassist@navy.mil SIPRNET: hrmc.techassist@navy.smil.mil MSG PLAD: NAVSHIPYD AND IMF PEARL HARBOR HI//101/200/210//
Ship Repair Facility (SRF) and Japan Regional Maintenance Center (JRMC) Yokosuka, Japan	0730-1630 Mon-Fri CDO after hours	DSN: 315-243-5362 CDO DSN: 315-243-5488 CDO Cell: 81-90-1851-8817	NIPRNET: TECHASSIST_JRMC@srf.navy.mil SIPRNET: TECHASSIST_JRMC@fe.navy.smil.mil MSG PLAD: NAVSHIPREPFAC AND JAPAN RMC YOKOSUKA JA
Southeast Regional Maintenance Center (SERMC) Mayport, FL	Call CDO. If no CDO contact, call Quarterdeck.	CDO: 904-591-8008 Quarterdeck: 904-270-5126 DSN: 960-XXX-XXXX	NIPRNET**:** sermc-cdo.fct@navy.mil MSG PLAD: SOUTHEAST RMC MAYPORT FL

c. Submit additional/new 2M and test equipment requirements to the TYCOM Representative, providing complete justification (e.g., workload, documented manhours, added capabilities with addition of new equipment).

d. Ensure adequate numbers of 2M trained and technically qualified personnel support the WC.

e. Ensure 2M personnel and station requirements are met per the criteria of Section 8.4 of this chapter.

f. Ensure 2M WC personnel are formally trained in the operation and maintenance of all ATE and MTRF equipment.

g. Maintain an up to date library inventory of Gold Disks for the AN/USM-674(V)(2) and test documentation for other installed ATE, in accordance with TYCOM outfitting requirements. Develop and submit Silver Disks to Naval Undersea Warfare Center, Fleet Engineering Office for CCAs/EMs which are not supported by Gold Disks.

h. Ensure all 2M repair actions are documented per reference (d).

i. Ensure the Electrostatic Discharge (ESD) procedures of references (g) and (h) are implemented within the 2M WC to provide adequate protection for ESD sensitive CCAs/EMs.

j. Coordinate with supply to ensure all CCAs/EMs meet the packaging requirements of per reference (i).

k. Ensure all CCAs/EMs certified RFI are processed as discussed in Section 8.5 of this chapter.

l. Maintain a complete inventory of 2M, ATE, AN/USM-674(V)(2), materials and consumables.

m. Ensure compliance with all applicable safety procedures in accordance with reference (j).

n. Ensure that the MTR Tracking System is used to record all maintenance actions and produces required production reports.

8.2.5 Commander, Navy Regional Maintenance Center. The Commander, Navy Regional Maintenance Center shall maintain qualified 2M/MTR Fleet Coordinators at Mid-Atlantic Regional Maintenance Center (MARMC)/Southwest RMC. Fleet Coordinators are responsible for 2M/MTR Inspections and Certifications in their respective geographical areas (i.e., MARMC is responsible for Atlantic and Southwest RMC is responsible for Pacific).

8.2.5.1 Regional Maintenance Center. The RMC 2M/MTR Inspection and Certification Branch (MARMC, Southeast RMC, Southwest RMC, Pearl Harbor, Sasebo, Yokosuka, Everett) shall:

a. Maintain a certified laboratory for the purposes of recertifying technicians, where Field Service Engineers are assigned.

b. Maintain certified 2M/MTR Inspectors.

c. Test operate and certify all 2M/MTR related equipment and report inspection results to the appropriate TYCOM.

d. Conduct technician recertifications and issue operator proficiency cards to qualified 2M technicians.

8.3 AUTHORIZED MINIATURE/MICROMINIATURE OUTFITTING. Authorized 2M outfitting is identified in reference (b).

8.4 MINIATURE/MICROMINIATURE PERSONNEL AND STATION REQUIREMENTS. References (f) and (k) provide certification criteria for all 2M stations and technicians. Reference (f) contains information on 2M repair stations and the Quality Assurance (QA) standards for workmanship.

8.5 PROGRESSIVE REPAIR PROCESS. The progressive repair process is the sequential attempt to test and repair CCAs/EMs. Reference (l) requires repairs at the lowest possible level. Reference (a) describes Repairables Management for Depot Level Repairables (DLR) and Field Level Repairables (FLR). 2M repair technicians will screen and attempt to repair all CCAs/EMs within their training and capability, regardless of cognizance or the Source Maintenance and Recoverability code.

8.5.1 Repair Process. The two principal categories of 2M repair are normal and emergency as defined in reference (l). Appendices A and B of this chapter define the emergency and normal processes respectively.

8.5.2 Ship's Force Process. An activity's repair capability and the type of 2M station may differ depending upon TYCOM outfitting. Such differences include the type of 2M station (MN or MC) and outfitting of test capability (AN/USM-674(V)(2), Huntron 2000, GPETE, etc.). These factors plus 2M technicians' training/certification dictate Ship's Force ability to screen and repair CCAs/EMs. Regardless of these differences, an attempt should be made to repair all CCAs/EMs prior to their forwarding to the FMA.

a. The 2M WC shall be designated as CSE3 for surface ships, (OE15 for Aircraft Carriers) and NE02 for SSBN/SSGN Class submarines. All 2M work will be documented using these WCs. Final action codes will use "7 series" in accordance with reference (d).

b. Submit Beyond Capability Maintenance to the FMA using an OPNAV 4790/2K or MJC-OXCA-C028. The WC responsible for the system will forward the CCA/EM to the FMA if the CCA/EM repair is beyond the capability of the 2M WC.

c. Supply Officers have different responsibilities for DLRs or FLRs, per references (a) and (m).

(1) DLRs. Carcass tracking procedures are delineated in local command instructions and will identify supply/maintenance personnel responsibilities for tracking CCAs/EMs either at the Ship's Force 2M WC or the FMA WC. Supply Officers are authorized to delay stock issue, replenishment, and non-RFI turn-in for up to 72 hours pending testing and repair. Aircraft Carrier WC OE15 MTRF will use the Progressive Repair Program with the MTR Tracking System to support Supply/MTRF interaction.

(2) FLRs. Disposal of FLRs can be accomplished by either Ship's Force or the FMA.

8.5.3 Fleet Maintenance Activity Process. FMAs have additional 2M repair and ATE capabilities exceeding the Ship's Force level. The FMA will conduct repairs to CCAs/EMs if it is within their capability.

a. An OPNAV 4790/2K or Master Job Catalog item will be submitted to the local Regional Support Group/Regional Maintenance Center for brokering. The organizational WC/MTRF will advise the Regional Support Group/Regional Maintenance Center if the CCA/EM is time sensitive (i.e., Casualty Report (CASREP)) to prioritize for immediate scheduling.

b. CASREP driven OPNAV 4790/2Ks will be accepted by the FMA on the same day the job is submitted and worked to support a 24 hour turn-around.

c. Non-CASREP driven OPNAV 4790/2Ks will be screened to support activities and worked to support a 72-hour time limit or deadline date.

d. If the FMA is unable to repair the CCA/EM, it is condemned according to Repairables Management procedures in accordance with the requirements of reference (a).

8.5.4 Certification of Miniature/Microminiature Repaired Assets as Ready for Issue. Reference (a) describes the definition and certification criteria for RFI items. Repaired CCAs/EMs will meet the following basic RFI requirements:

a. Packaging and preservation.

(1) Repaired items from the 2M WC/MTRF will be packaged to meet the minimum standards of reference (a).

(2) A repair unit identification label shall be affixed to the body of each repaired unit in accordance with reference (a). The label must specify the command/activity performing the repair, the date repaired and the name of the 2M technician.

b. ESD protection. ESD sensitive CCAs/EMs will be handled, prepared, and packaged in accordance with references (g) and (n). Ensure all CCAs/EMs are packaged for shipment per reference (o).

8.5.5 Miniature/Microminiature Module Test and Repair Piece Parts. Piece parts required for 2M repairs have been formalized into Allowance Parts Lists (APL) for each ship class having 2M/MTR repair capability. These APLs contain unique high usage piece parts such as resistors, diodes, capacitors, transistors, and integrated circuit chips determined from Fleet wide demand data, TYCOM recommendations and from the latest Gold Disk release which support, and are part of, the equipment and/or systems installed on a specific ship class. 2M/MTR piece part APLs are divided into two distinct groups, Baseline and Augmented APLs.

9.6.5.2.2 Consolidated TMDE Readiness Assessment Test, Measurement and Diagnostic Equipment Redistribution. The CTRA Center manages the redistribution of Fleet TMDE to fill allowance deficiencies or replace equipment that is missing or BER. Excess TMDE and decommissioned ships' assets are received and made available for redistribution to FLEET activities. Fleet activities are required to forward all excess TMDE to the CTRA Center and to utilize the CTRA Center for the initial requests to fill replacement or deficient SCAT coded TMDE.

9.6.5.2.3 Completion and Corrective Action Reporting (Submarines only). Executive Director, Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity issue a CTRA Completion Report, via the parent ISIC with TYCOM on copy, outlining corrective actions to be taken by the assessed command as a result of the CTRA. The assessed command will issue a corrective action letter within 90 days of receipt of the CTRA Completion Report, via the parent ISIC with TYCOM on copy, to Executive Director, SUBMEPP Activity.

9.7 SHIPBOARD INSTRUMENTATION AND SYSTEM CALIBRATION. The SISCAL Program, which includes SGCP, is responsible for the calibration and maintenance support for installed instrumentation and machinery control system calibration requirements per reference (e). Installed instrumentation calibration support parameters are documented in the ship specific CRL as follows:

a. Calibration Activity. Defines responsibility for calibration of shipboard installed instrumentation for the following three calibration activities.

(1) Calibration Activity 1 (Level 1). Shipboard FCA is responsible for calibrating stand-alone instrumentation (i.e., gages, thermometers and switches). Instruments are typically calibrated onboard (in place/onsite) by the certified SGCP technicians using PMS MIP 9802 calibration procedures per the hull specific CRL. On submarines, shipboard FCA also perform transducer calibrations (system calibration) using H coded calibration cards in the PMS deck.

(2) Calibration Activity 2 (Level 2). (Applicable to Surface Force ships, aircraft carriers and Landing Craft Air Cushion (LCAC)) SISCAL teams perform calibration support for machinery control system components (i.e., pressure transducers, temperature transducers, signal conditioners, display devices, meters, etc.). Except during yard/industrial periods when testing is mandated, these components are not calibrated as individual items. Instead, the entire measurement chain is calibrated as a single entity using Navy approved calibration standards and SCPs. Only SISCAL teams are authorized to use SCPs. Level 2 calibrations are performed onboard (in place/onsite) by SISCAL teams certified by the SISCAL EA, SSES 953. These teams are:

(a) Surface Ships and aircraft carriers - NSWC SSES, NAVSHIPYD and IMF Pearl Harbor and NAVSHIPREPFAC Japan. These teams will be augmented by RMC I-Level Production.

(b) Landing Craft Air Cushion (LCAC) - certified SISCAL teams at Assault Craft Units.

(3) Calibration Activity 3 (Level 3). RCC calibrates those instruments which require the use of unique calibration standards or facilities.

b. SISCAL Team Scheduling. (Not applicable to Sub platforms) SISCAL scheduling begins approximately six months before expiration date and is coordinated between the Port Engineer/CVN Maintenance Manager/SHIPSUP and the SISCAL scheduler. The SISCAL team workload is the Calibration Activity 2 instruments listed in the ship's CRL and is accomplished only by the NAVSEA authorized calibration agents listed above. SISCAL visits are scheduled for both triennial SISCALs and subsequent return visits (call-back). If a ship is in an industrial environment then reference (n) applies until SISCAL effort can commence within the six months post industrial availability period.

c. SISCAL Dashboard. A bi-weekly document issued by the SISCAL EA via email to all SISCAL stakeholders provides the following:

(1) Triennial SISCAL visit scheduled on or before the calibration due date.

(2) SISCAL Report. A SISCAL report is provided to the ship after the triennial SISCAL visit. The report identifies the results of the calibration effort and includes a listing of all instruments that were not calibrated during the visit. Instruments that were not calibrated are listed under the following categories:

(a) Rejected (broken or out of tolerance).

(b) Previously rejected (PRE_REJ), left over from last SISCAL.

(c) Not Installed (NI), instrument missing.

(d) Not Done Due to Ship Operations (NDSO).

(e) Not Done at Ship's Request (NDSR).

(f) Not Done Due to Shipyard (NDSY).

(g) Could Not Be Isolated (CNI).

(h) Equipment Out Of Commission (OOC).

(i) Not On Site Capable (NOSC), No Procedure (NOPRO) or No Calibration Standard (NS). NSWC SSES will coordinate with NAVSEA Program Offices to resolve.

(3) Call-back SISCAL visit. Listed as either a SISCAL call-back or SISCAL II. SISCAL II is used when more than 100 instruments require calibration. Visit is requested by ship, SHIPSUP or Port Engineer/CVN Maintenance Manager via OPNAV 4790/2K or AWR. Call-back requests citing multiple instruments are preferred to maximize SISCAL manpower availability and minimize cost. Non-specific requests (e.g., calibrate various instruments) should be avoided since the task breadth (quantity of instruments) and scope (type of instruments) cannot be readily determined. The 2K also identifies the deferred maintenance for the instrumentation in the Current Ships Maintenance Project (CSMP).

d. Departure From Specification (DFS). DFS messages are requests for temporary departures and are submitted in accordance with Volume V, Part I, Chapter 8 of this manual.

(1) A DFS for deferring SISCAL could be submitted for the following reasons:

(a) Extending the periodicity of the ship's SISCAL requirement. TYCOM approves DFS up to six months. DFS in excess of six months requires NAVSEA 04RM concurrence.

(b) Extending the periodicity for individual Level 2 and 3 instruments with expired calibration due dates or replaced while away from homeport/calibration facility.

(c) Level 2 instruments that were not calibrated during SISCAL due to lack of a calibration procedure or calibration standard.

(d) Other shipboard SISCAL DFS requests will be evaluated on a case-by-case basis.

(2) DFS requests will not be approved for the following:

(a) Instrumentation within the calibration capability of the SGCP FCA.

(b) Instrumentation not calibrated during a SISCAL visit due to an out of commission or rejected status.

e. Shipboard Level 1 calibration workload beyond shipboard FCA capability or capacity must be submitted to their respective TYCOM and/or RMC calibration coordinator for scheduling and accomplishment. When contracted out to a Commercial Calibration Activity (CCA) or Commercial Service Provider (CSP) or an Original Equipment Manufacturer (OEM), the CCA/CSP/OEM calibrating such instruments must meet the NAVSEA METCAL TWH guidance for certification/accreditation, traceability and Test Accuracy Ratio/Test Uncertainty Ratio/Probability of False Accept. Commercial activities must provide the results of all calibrations performed by them and must use periodicities listed in the CRL for installed instruments. Commercial activities must also provide calibration event data to Ship's Force and TYCOM in a Microsoft Excel format for easy entry into the TYCOM Calibration Recall Program. Entries in the calibration events file shall not be abbreviated. For existing, permanently installed instruments, the calibration events file data set shall include the nomenclature, CRL reference number, condition received (i.e., In Tolerance (IT) or Out of

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CHAPTER 13

SURFACE SHIP CORROSION CONTROL

REFERENCES.

(a) NAVSEA S9086-DA-STM-010 - NSTM 100, Hull Structures
(b) NAVSEA S9086-VD-STM-010 - NSTM Chapter 631 (Preservation of Ships In-Service - General)
(c) NAVSEA Technical Publication T-9630-AB-MMD-010/ALL USN HULLS - Corrosion Control Assessment and Maintenance Manual (CCAMM) for the Corrosion Control Information Management System (CCIMS)
(d) COMNAVSURFOR Instruction 3120.1 - Zone Inspections
(e) COMNAVAIRFORINST 4790.1 - Commander Naval Air Forces Surface Maintenance and Material Management (3-M) System Manual

LISTING OF APPENDICES.

A Preservation Departures from Specifications Process Decision Tree

13.1 PURPOSE. To provide basic guidelines necessary to maintain an effective Corrosion Prevention and Control Program. Guidance for inspection, prevention and repair of corrosion on ships is contained in references (a), (b) and (c), which supersedes all previous class specific Corrosion Control Manuals distributed by Naval Sea Systems Command. In addition, this chapter requires the use of the Corrosion Control Information Management System (CCIMS) database as the repository for all inspection and maintenance data. The maintenance of coating integrity to prevent structural degradation is necessary to ensure the safe and proper operation of the ship. Maintenance of areas with severe corrosion require enhanced and targeted surveillance due to the highly corrosive conditions that can lead to higher risk of accelerated structural degradation. Reference (a) provides structural system survey and inspections criteria for surface ships and aircraft carriers. Reference (c) provides specific requirements for inspecting tanks and voids and provides condition based maintenance guidance for availability planning.

13.2 BACKGROUND. Protective coatings are the most widely used method of corrosion control and have specific applications. Therefore, the physical location and operating environment shall be taken into consideration when choosing a coating system. Through the application of improved corrosion prevention and control techniques, procedures, and materials, longer lasting and more effective results can be obtained with a reduction in man-hours spent on preservation. The Department of Defense "Annual Cost of Corrosion for Navy Ships" study identified corrosion control/preservation as a high cost driver for ship life cycle maintenance. In order to reduce this life cycle maintenance cost, an accurate database of coating conditions is required to facilitate timely and appropriate maintenance decisions. The failure to identify, track, and repair a preservation system deficiency can result in coating failure and can result in damage to the structure, substantially increase repair costs and adversely impact both the seaworthiness and combat worthiness of the hull. The CCIMS database was developed to document coating conditions to assist in maintenance planning. The CCIMS database is located at https://ccims.dc3n.navy.mil and can be accessed to record the results of tank, void and general structural inspections, coating systems installed, and all repairs conducted.

13.3 POLICY.

a. All Level 1 and 2 corrosion control structural system surveys and inspections shall be accomplished in accordance with reference (a).

(1) Level I Structural System Surveys are defined as scheduled inspections per the Class Maintenance Plan specific to each ship class and are focused on ship structure and foundations.

(2) Condition-directed Level 2 structural inspections shall be conducted if warranted by deficiencies identified by a Level 1 survey. The Level 2 inspection shall include, but is not limited to, thickness gauging measurements and Non-Destructive Testing as applicable to the structural condition to allow for adequate assessment.

b. The CCIMS database shall be used for documenting coating system inspections, maintenance and repairs.

c. All inspectors and surveyors shall be qualified in accordance with reference (c) requirements.

d. Whenever a tank or void is opened for manned entry, an inspection shall be performed. The inspection shall be performed in accordance with reference (c). All inspection results will be entered into the CCIMS database.

e. For surface force ships and aircraft carriers, the CCIMS database will be used for ship maintenance availability planning.

NOTE: ANY OUT-OF-SPECIFICATION CONDITION FOUND IS TO BE MITIGATED IN ACCORDANCE WITH APPENDIX A OF THIS CHAPTER AND IN ACCORDANCE WITH VOLUME V, PART I, CHAPTER 8 OF THIS MANUAL.

13.4 RESPONSIBILITIES.

13.4.1 Type Commanders.

a. Port Engineers and Maintenance Program Managers (MPM) schedule and screen corrosion control work items to the appropriate repair activities during industrial availabilities and upkeeps with sufficient length to accommodate the work.

b. Port Engineers and MPMs screen tank, void and general structural inspection Automated Work Requests (AWR) in Availability Work Packages to the repair activities capable of performing the inspections including in-house Type Commander resources as applicable.

c. When tasked by Port Engineers and MPMs, inspectors and surveyors assigned by Fleet Maintenance Activity/Regional Maintenance Center (RMC)/Type Commander will perform inspections using references (a) and (c). Inspector/surveyor will ensure all inspection data is entered into CCIMS database within three working days upon completion of inspection.

d. (Aircraft Carriers only) Provide to Ship's Force:

(1) Self help information on corrosion control information.

(2) Technical assistance on setting up and updating a ship's Corrosion Prevention and Control Program.

(3) Coordinate and/or provide training in accordance with reference (c) for inspection personnel assigned by the Repair Officer (Ship's Corrosion Control Officer for Aircraft Carriers).

13.4.2 Fleet Maintenance Activity/Regional Maintenance Center.

a. Maintain facilities and sufficient qualified personnel to apply protective coatings.

b. Conduct Technical Assist Visits upon request from a ship during a fleet maintenance availability, or at other times as the workload permits, to include:

(1) Identification of shipboard topside corrosion problem areas.

(2) Recommendations for methods and means of corrosion problem correction.

(3) Informing Ship's Force of local industrial assets, including local Fleet Maintenance Activity/RMC, other industrial facilities (i.e., industrial activities) or Commercial Industrial Services assets.

(4) Self-help information for Ship's Force.

(5) Technical assistance on setting up and updating a ship's Corrosion Prevention and Control Program.

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CHAPTER 18

INFLATABLE LIFE RAFTS

REFERENCES.

(a) NAVSEA S9086-TX-STM-010 - NSTM Chapter 583 (Boats and Small Craft)
(b) NAVSEA S9008-AA-PRO-010 - Lifeboat, Inflatable, MK6, MK7 and MK8 Inspection, Test and Repair Procedures
(c) NAVAIR 13-1-6.1 - Aviation Crew Systems, Chapter 7 (LRU 13/A)
(d) NAVSEA TW024-AA-ORD-010 - Unserviceable, Suspended, and Limited Use Ammunition
(e) NAVSUP Publication 485 - Afloat Supply Procedures

18.1 PURPOSE. To provide guidance for the maintenance, repair, certification and procurement of life rafts used onboard naval ships and craft.

18.1.1 Discussion. An inflatable life raft is one constructed of a coated fabric and inflated to its design shape by air or other gas. The raft is stowed aboard ship for use only as a life raft, when and as directed by the Commanding Officer/Officer In Charge.

18.2 FLEET LIFE RAFT PROGRAM. The Fleet Life Raft Program Manager designated by the United States Fleet Forces Command Maintenance Officer is responsible for establishing policy guidelines for the program. Policy will be disseminated to the Fleet and Naval Sea Systems Command (NAVSEA) certified Regional Maintenance Centers (RMC) for scheduling, planning, conducting Planned Maintenance System (PMS) recertification of fleet assets and management of life raft contingency pools. Commander Naval Surface Force Atlantic (Code N434) and Commander Naval Surface Force Pacific (code N4344) are designated Fleet Life Raft Program Managers.

18.2.1 Types of Inflatable Life Rafts. There are 5 basic Navy type inflatable life rafts for use throughout the fleet (ships and aircraft):

a. MK-6 Mod 3, 25 person, air inflated - currently carried by surface force ships/aircraft carriers, encapsulated in a fiberglass container.

b. MK-7 Mod 0, 25 person, air inflated - currently carried by surface force ships/aircraft carriers, encapsulated in a fiberglass container.

c. MK-8 Mod 0, 50 person, air inflated - currently carried by aircraft carriers, encapsulated in a fiberglass container.

d. LRU 13/A (former MK-2), 7 person, CO_2 inflated - used on aircraft, certified to Naval Air Systems Command (NAVAIR) requirements.

e. LRU 12/A (former MK-4), 4 person, CO_2 inflated - used on submarines only.

18.2.2 Commercial Life Rafts. Various commercial Coast Guard approved life rafts are installed on board certain boats and/or Navy ships for service and in-service evaluation testing. The cognizant command is responsible for PMS recertification requirements.

18.3 RECERTIFICATION. The periodicity of recertification will be as designated by PMS requirements.

a. Recertification is based on PMS periodicity requirements starting from the recertification date stenciled on the outside of the life raft container.

b. If the certification date is not stenciled or tagged on the outside of the life raft container or verified from the ship's life raft log inspection, recertification records, or unavailable by scanning and electronic remote identification, life raft certification will be considered expired.

c. Submit an OPNAV 4790/2K to the Fleet RMC for recertification.

18.4 CONTINGENCY POOLS. Designated Fleet Maintenance Activities in the Atlantic and Pacific Fleets are responsible for coordinating the disposition of assets and maintaining contingency pools within authorized limits. Contingency pools will consist of the MK-6, MK-7, MK-8 and LRU 12/A life rafts (ships/boats/craft). The cognizant NAVAIR command will coordinate the disposition of LRU 13/A life rafts (aircraft) from a separate pool of assets. Contingency pools are authorized a limit not to exceed 100 rafts unless approved by the Fleet Life Raft Program Manager.

a. If the contingency pool should fall below the authorized limit, restock the pool from decommissioning assets (as available). Purchase a new raft from the stock system, using Repair Other Vessel funds, only as a last option to facilitate scheduling.

b. Commands are not authorized to maintain and operate a life raft contingency pool other than those designated as fleet approved contingency pools. Contact the life raft contingency pool manager for disposition and turn-in instructions for all rafts that are removed from decommissioning ships and/or aircraft.

c. Contact the designated Fleet Life Raft Program Manager for disposition instructions if the inclusion of additional rafts into the pool will exceed authorized pool limits.

d. Location of Fleet Life Raft Repair Facilities and Contingency Pools:

Mid-Atlantic Regional Maintenance Center (MARMC) Norfolk Naval Shipyard, Portsmouth, VA
Southwest Regional Maintenance Center (SWRMC) - San Diego, CA
Naval Ship Repair Facility Yokosuka, Japan

18.5 AUTOMATED TRACKING SYSTEM. A data base is maintained by Naval Surface Warfare Center, Carderock Division (NSWCCD) Detachment, Norfolk VA, for tracking the Navy MK-6, MK-7 and MK-8 life raft population (www.boats.dt.navy.mil). Inputs on each life raft are provided by all certified life raft repair facilities. Access is restricted; therefore, for reports or data retrieval, contact the respective Fleet Life Raft Repair Facility (e.g., Fleet Maintenance Activity, Fleet Life Raft Program Manager or Data Base Manager).

18.6 RESPONSIBILITIES.

18.6.1 Commanding Officer/Officer In Charge.

a. Submitting an OPNAV 4790/2K to the RMC for any life raft requiring replacement or recertification. For recertification, the OPNAV 4790/2K should be submitted no sooner than 6-months prior to the expiration date stenciled on the outside of the life raft container (or date verified by the ship's life raft log). Arrange with the RMC/RRC/Fleet Maintenance Activity for transfer and shipping of rafts to facilitate schedules.

b. Maintaining a log or data base of all life rafts on board, to include the following:

(1) The Inflatable Life Raft Recertification Record (ILRRR) for each raft. ILRRRs are issued with each life raft at recertification. Ships should not accept any life raft from a recertification/repair facility without the ILRRR provided. If the ship does not have the required ILRRR, contact NSWCCD Detachment Norfolk VA.

(2) Record the station location and serial number of each life raft. Annotate this information on the top of each ILRRR in the log.

c. Send a report to NSWCCD Detachment Norfolk VA, the Type Commander (TYCOM) (N43) and the respective recertification/repair facility if any life raft is lost or transferred to another ship. Reports should include the life raft serial number, manufacturer's name, recertification facility and a description of the circumstances.

d. Ensure life raft fiberglass containers are handled with care using appropriate slings. Life rafts are not to be rolled or stood on-end. Life rafts will be placed with the top up, in racks, with the container seal or canister joint in the horizontal position.

(5) Assistance with the preparation and submission of TFBRs.

(6) Assistance in obtaining prompt correction to faulty PMS documentation (liaison with In-Service Engineering Activity (ISEA)).

(7) On a case basis, provide the authorization to use modified (red lined) PMS documentation.

(8) (Submarines only) Review the ship's K-Maintenance Requirement Card (MRC) plan for all Continuous Maintenance Availabilities (CMAV) as discussed in Volume II, Part I, Chapter 4 of this manual. Ensure the plan is in accordance with requirements of Volume II, Part I, Chapter 4 of this manual.

19.2.1.3 Immediate Superior In Command. The ISIC shall designate a 3-M Officer in writing. The 3-M Officer is responsible for the satisfactory administration of 3-M programs, in accordance with reference (a) and this chapter, for subordinate Commands or activities. Submarine ISICs shall review the ship's K-MRC plan for all CMAVs as discussed in Volume II, Part I, Chapter 4 of this manual. Ensure the plan is in accordance with requirements of Volume II, Part I, Chapter 4 of this manual.

19.2.1.4 In-Service Engineering Activity. ISEAs are those activities designated by NAVSEA as the technical expert for specific systems and/or equipment. Naval Surface Warfare Center, Carderock Division (NSWCCD), for example, is the ISEA for the majority of Hull, Mechanical and Electrical equipment installed on most ships. ISEA responsibilities include but are not limited to the following:

a. Development of PMS documentation to include validation of newly developed or changed procedures.

b. Maintenance of PMS documentation.

c. Timely responses to TFBRs.

d. Providing copies of critical TFBR resolutions to all holders of the affected Maintenance Index Page (MIP)/MRC. All other resolutions will be integrated into the next available Force Revision.

19.2.1.5 Naval Sea Logistics Center Detachments. Responsibilities include but are not limited to the following:

a. Maintain the Navy PMS Database.

b. Receive, screen and process TFBRs.

c. Resolve TFBRs within their technical capability.

d. Develop and distribute Force Revisions as required.

19.2.1.6 Submarine Maintenance Engineering, Planning and Procurement Activity (Submarines only). Submarine Maintenance Engineering, Planning and Procurement Activity (SUBMEPP) is a NAVSEA engineering activity chartered to support NAVSEA and the submarine TYCOMs in their effort to maintain a high degree of Submarine Force Material and Operational Readiness. In support of 3-M, SUBMEPP is tasked by NAVSEA and the TYCOMs with the following:

a. Act as the TYCOM screening activity for TFBRs submitted by Submarine Force activities.

b. Maintain the Submarine Force Technical Feedback Report History/Tracking (TFBR H/T) Program.

c. Establish, maintain, update and distribute all requirements as MJC Items in support of TYCOM Alteration Management System, Periodic Maintenance Requirements (PMR), Baseline Overhaul Work Packages/Selected Restricted Availability (SRA) Routines and Standard Availability Routines.

d. Provide semi-annual analysis of Naval Sea Logistics Center (NAVSEALOGCEN) historical MJC originated data and distribute updated planning and estimating data to include changes in estimated MJC manhours.

e. Provide semi-annual analysis of NAVSEALOGCEN historical PMR originated data and distribute updated manhour and material requirements to the PMR scheduling and Technical Repair Standards.

f. Liaison with ISEAs and NAVSEALOGCEN detachments to ensure submarine TFBRs receive accurate and timely responses.

g. Assist with PMS installation on all new construction submarines.

19.2.1.7 Afloat Training Group (Surface Force Ships only). Afloat Training Groups are under the technical administration of the Fleet Training Commands. They provide Surface Force platforms with the following:

a. Conduct 3-M Assessments.

b. Technical and personal support for 3-M training.

c. 3-M training services as needed.

19.2.1.8 Ship's Maintenance and Material Management Coordinator/Officer. The duties and responsibilities of the Ship's Maintenance and Material Management Coordinator (3-MC)/3-M Officer are well defined in reference (a). Specifically the 3-M Coordinator/3-M Officer is the functional manager of the 3-M System and is responsible to the Executive Officer for the administrative requirements of the Ship's 3-M program. In addition to the requirements of reference (a) the following applies:

a. Develop and administer the Ship's PMS Spot Check Program. Section II-A of Appendix A of this chapter may be used as a spot check evaluation sheet.

b. Monitor the Ship's 3-M Personnel Qualification Standard (PQS) Program and maintain an auditable record of personnel qualified in 3-M PQS.

c. Ensure that all Equipment Status Log/Ship's Force Work List items outstanding for more than 30 calendar days are converted to 3-M deferrals.

d. Administer the Ship's configuration management program.

e. (Submarines only) Review and track K-MRC completion for each division. Prior to any CMAV, the Maintenance and Material Management Coordinator (3MC) will develop a K-MRC execution plan as outlined in Volume II of this manual. The 3MC shall maintain all K-MRC history for a given monitoring period until Performance Monitoring Team (PMT) confirms receipt of all data in the monitoring period report.

19.2.1.8.1 Optimally Manned Ships. (Littoral Combat Ships (LCS) only). The Littoral Combat Ships Squadron (LCSRON) and Mission Package Support Facility (MPSF) shall have dedicated 3-MCs responsible for the effective implementation of the 3-M Program of all assigned ships. Responsibilities also include:

a. Review, update, schedule, all PMS.

b. Ensure Location Guide Lists are fully developed and all MRCs are assigned to the correct equipment.

c. Maintain and update the master PMS SKED ensuring that ship and sustainment contractor data are current.

d. Receive update files from the sustainment contractor, mission modules or sea-frames for maintenance status reporting TFBR submissions and equipment association changes.

e. Review and analyze all exception or error reports providing corrective actions to the Regional Maintenance Center who provides the government oversight on sustainment contractor performed PMS.

f. Initiate situational and state triggered maintenance by activating Global Events.

g. Review and approve or reject submitted TFBRs.

h. Perform the duties of paragraphs 19.2.1.8 and 19.2.1.9 of this chapter.

19.2.1.9 Command Maintenance Availability Coordinator/Ship's Material Maintenance Officer. The Command Maintenance Availability Coordinator/Ship's Material Maintenance Officer will be responsible for the coordination of all Fleet Maintenance Activity (FMA) repairs and coordinate closely with the 3-M Coordinator. The Command Maintenance Availability Coordinator/Ship's Material Maintenance Officer will also provide a single working level point of contact and coordinate the command's requirements with the requirements of the FMA. These duties include:

a. Technical review of work requests submitted for FMA accomplishment.

(1) Ensure readability and technical correctness.

(2) Prevent duplication of work requests for Ship Alterations/Unrestricted Operation and other MJC originated deferrals.

(3) (Submarine Force only) Ensure corrective maintenance described in Block 35 (Remarks) of the Ship's Maintenance Action Form OPNAV 4790/2K of reference (a) (2-Kilo) includes reference to the associated Maintenance Standard when applicable.

(4) Collect supplemental 2-LIMA requests for routine work (i.e., lagging, painting, label plates, tiling, etc.) from all Work Centers (WC) and prepare an integrated priority list for each type of routine work to maximize the FMA's effectiveness.

b. Ensure Command's preparations for an FMA availability are conducted in accordance with Volume II, Part I, Chapter 4 of this manual.

c. Meet daily, during an availability, with the assigned Ship Superintendent to discuss the status of all active jobs.

d. Attend all FMA production, night work, and management meetings.

e. Provide a daily FMA job status to each Department Head, Division Officer, and Leading Petty Officer.

f. (LCS only) Provide oversight of the MDS and PMS program along with all availabilities.

g. (LCS only) Approve scheduled PMS and work candidates as the Department Head when LCSRON/MPSF N-4 is not available.

h. (Submarines only) Prior to Work Package Execution Review, meet with the PMT, TYCOM 3M representative and ISIC together (typically at A-40) to review current K-MRC status, ensure the ship's records match that of PMT and develop a K-MRC execution plan.

19.2.2 Qualifications. All personnel assigned to billets associated with the 3-M system must be 3-M PQS qualified for the assigned billet in accordance with reference (b).

19.2.3 Maintenance and Material Management Operation and Administration.

19.2.3.1 Standard Force Work Center Numbering System. The production of automated products in support of the 3-M system, as well as the various Maintenance Automated Information Systems, dictate that a standard force WC organization be maintained. Commanding Officers shall designate their Command organization and applicable WC codes as listed in Appendix C of this chapter. Additionally:

a. Commands shall not allow the use of any WC codes not authorized by reference (a) or this manual.

b. Requests to change WC designation codes will not be approved unless they are applicable to all ships of a class and supported by detailed justification. This does not affect the re-assignment of a MIP to another WC (shift of maintenance responsibility). Reference (a) provides guidance for the shift of maintenance responsibility.

c. (Submarine Force only) Small boat, tug, receiver, and service craft managers will use the specific WCs identified in Appendix C3 of this chapter for MDS documentation, however, for PMS management they may assign a "**00" WC to consolidate PFRs, MIPs, scheduling, etc., (e.g., PY30 through PY84 may consolidate PMS under WC PY00, or PY01-Mechanical, PY02-Electrical, etc.). The Unit Identification Code will be that of the parent command.

d. (Surface and Submarine Forces only) Standard MJC assigned WC codes are reflected in Appendix D of this chapter.

19.2.3.2 Job Control Number. The Job Control Number (JCN) is the key identifier for maintenance actions and related supply documents. The JCN is used to identify the maintenance action and to relate all of the parts used when a ship reports a maintenance action and it links all associated reporting of a maintenance action. The JCN is comprised of three blocks as defined by the Ship's 3-M manual. Block 1 is the Ship's Unit Identification Code (5 numeric characters), Block 2 is the WC (4 alphanumeric characters, left justified) and Block 3 is the Job Sequence Number (JSN) (usually 4 numeric characters).

19.2.3.3 Job Sequence Number. The first position of the JSN is used to identify the tool or organization that created the 2-Kilo. In the case of activities other than the ship creating jobs for the ship, this first character of the JSN will be an "ALPHA" character. The control over which organizations/tools "OWN" which "ALPHA" character(s) is provided by the Job Originator Values, Appendix E of this chapter, developed within the Maintenance and Modernization Business Unit and is available through the NAVSEALOGCEN website under Maintenance and Modernization Business Unit look up tables. The specific value contained within the first position of the JSN provides enhanced data mining capabilities and facilitates data aggregation and analysis.

19.2.3.4 Scheduling. PMS is a portion of the Command's 3-M program that provides, in one authoritative system, the scheduling information and technical procedures governing planned maintenance. PMS provides a simple method for scheduling, and documenting the execution of planned maintenance procedures. Fleet policy is as follows:

NOTE: WHERE THE GOAL OF 100% ACCOMPLISHMENT CANNOT BE REACHED, THE UNIT'S CHAIN OF COMMAND SHALL BE KEPT INFORMED OF THE CIRCUMSTANCES WHICH PREVENT ACCOMPLISHMENT OF SCHEDULED MAINTENANCE.

a. (Submarine Force only) An asterisk (*) will be inserted in SKED against any Maintenance Requirement (MR) which is a "Safety of Ship" item. A "Safety of Ship Item" is defined as any maintenance action vital to the maintenance of a submarine's watertight integrity or its ability to return safely to the surface. "Safety of Ship" MRs, so designated by the cognizant technical authority, are annotated on the MIP with a single asterisk (*) in the periodicity code column. Commanding Officer notification is required for non-accomplishment of any "Safety of Ship" designated MR.

b. Situational reference sheets will be maintained/posted in the WC PMS Manual. These sheets will contain a brief description of the situation and the maintenance action for all situational requirements listed in the right hand column of the weekly schedule. Appendix F of this chapter provides a typical situational reference sheet.

c. Situational maintenance scheduling shall be managed utilizing the tools provided by the computer based PMS scheduling software employed by the activity. All event driven situational requirements shall be "triggered" when required and performed per reference (a).

d. (LCS/DDG 1000 only) A plus sign (+) denotes PMS to be performed by the sustainment contractor or other Maintenance Personnel not assigned to Ship's Force.

19.2.3.5 Execution. MRC accomplishment is critical for maintaining equipment in a ready state and achieving expected service life. The maintenance tasks directed by MRCs are the minimum standards for organizational (shipboard) preventative maintenance and therefore equipment degradation can be assumed if maintenance is deferred. The following provisions are provided to maximize on time performance of PMS and provide increased Fleet latitude in maintaining equipment.

a. MRC accomplishment shall be as directed by reference (a). MRCs are prepared as instructions to complete a maintenance task based upon the premise that the personnel assigned to perform the task has sufficient knowledge of the rate listed on the card, and is qualified to perform maintenance as directed by the MRC. The MRC shall be accomplished in sequential order, adhering to all warnings, cautions and notes. Routine sub-steps (e.g., fastener removal, steps to don and remove Personnel Protective Equipment (PPE), turning on a vacuum) may or may not be included in the MRC and their absence should not prevent the maintainer from completing the maintenance task. If a step is missing that is necessary to complete the task, and is not obvious to the maintenance person, a TFBR should be submitted.

b. MRC completion status is dependent on the accomplishment of all procedural steps on all of the equipment listed on the MRC or its accompanying Equipment Guide List (EGL) or items listed on the Location Guide List section of the MRC.

c. The performance of additional rational actions during the accomplishment of an MRC is authorized. Examples of such actions include turning on and off items utilized during the performance of the MRC (Vacuum cleaners, test equipment, etc.) and general housekeeping (cleaning up or containing spilled fluids or dirt) as experiences gained from prior accomplishments warrant and in no way detracts from the accomplishment status.

d. The substitution of any tools, materials or test equipment not held by the activity should be considered prior to deciding to defer the maintenance until the exact tools, materials or test equipment listed on the MRC are procured. This is especially critical for frequently required maintenance where several performance cycles can be missed while waiting for supply to provide the correct items. Substitution requirements are provided by reference (a) and other technical documents.

19.2.3.6 Accountability. The credibility of the Navy PMS program relies heavily on the individual accomplishing the maintenance. The required dedication and integrity of that individual cannot be overstressed. To maintain accountability, personnel are required to sign for the completion of assigned maintenance in an Accountability Log. The Work Center Supervisor (WCS) is required to review and sign the Accountability Log weekly to verify the accuracy and completeness of entries. Accountability sheets will be maintained in the WC PMS Manual for a period of not less than 13 weeks.

19.2.4 Preventive Maintenance Feedback Reports. The PMS Feedback Report (FBR) is used to notify NAVSEALOGCEN Det Norfolk/San Diego of matters related to PMS, and the FBR may be screened by the TYCOM. Feedback forms are used to report problems and also to request PMS coverage for newly installed systems or equipment. While a request for PMS coverage will provide initial PMS coverage and changes, submission of an OPNAV 4790/CK form is required to initiate the rest of the logistic support change process in accordance with reference (a). All SKED users shall submit FBRs via SKED. Non-SKED users may submit FBRs via the Planned Maintenance System Management Information System (PMSMIS) website at https://algol.seajax.navy.mil/pmsmis by selecting the Feedback tab and Feedback Wizard. Non-SKED users accessing this website for the first time will need to request an account. Click on File Manager and select New User Account Request. This displays options to select a form and readme file, which can be downloaded, filled out and sent via e-mail as directed in the readme file. An e-mail will be sent to you confirming your account and providing access to the main screen.

19.2.4.1 Technical Feedback Report Reporting (Submarine Force only). Submarines transmit TFBRs to their parent 3M Representative on navy.smil.mil via SIPERNET (3M Coordinators should be aware of the default SEAJAX email address that is programmed into SKED. They should ensure that TFBRs are emailed via SIPERNET to the parent 3M Representative in their homeport). The TFBR H/T Program is a database that contains summary information taken from TFBRs initiated by COMSUBLANT/COMSUBPAC units and support activities.

19.2.4.2 Preventive Maintenance System Feedback Reports. The PMS FBR (OPNAV form 4790.7B) is used specifically to notify the NAVSEALOGCEN of matters related to PMS.

a. While the FBR will provide initial PMS coverage and changes, submission of an OPNAV 4790/CK form is required to report configuration changes and changes in logistic support.

b. Automated forms for FBR submission may be transmitted electronically using:

(1) SKED Feedback Report Wizard (preferred).

(2) PMS Management Information System website identified in paragraph 19.2.4 of this chapter.

(3) Anchor Desk website.

19.2.4.3 Feedback Report Types. There are three types of FBRs: Category A, Category B and Urgent.

a. Category A - non-technical in nature and intended to meet PMS needs which do not require technical review, including changes in WCs. Category A FBRs are submitted to request classified or other PMS documentation, which cannot be obtained locally.

b. Category B - technical in nature and are used to report technical discrepancies inhibiting PMS performance or shift of maintenance responsibilities.

c. Urgent - reason for submission involves safety of personnel, ship or potential for damage to equipment and relates to the technical requirements of PMS. Urgent FBRs will be forwarded by naval message, containing a PMS Feedback Serial Number, to NAVSEALOGCEN with info to the cognizant System Command, Bureau of Medicine and Surgery, Naval Safety Center and TYCOM. The message shall describe the unsafe procedures or conditions and identify the specific MIP/MRC involved.

19.2.4.4 Feedback Report Screening. The ship's 3-MC is responsible to screen all FBRs and serialize and forward within four days of receipt.

a. The 3-MC shall maintain accountability for all PMS FBRs submitted and actions taken until corrected PMS documentation is received.

b. The 3-MC shall also ensure that the originator and all applicable WCs are kept apprised of action taken and ensure the originating and other applicable WC Supervisors implement the changes or corrections when received.

(1) NAVSEALOGCEN is responsible to provide expeditious resolution to all FBRs whenever possible.

(2) Where resolution by NAVSEALOGCEN is not possible, the FBR will be electronically forwarded to the cognizant Technical Review Activity for resolution.

19.2.4.5 Preventive Maintenance System Technical Feedback Reports. TFBRs are specifically used for reporting technical deficiencies or errors in PMS documents. Technical PMS discrepancies that could have a detrimental effect on personnel safety, safety of ship or could result in significant equipment damage are classified as "Urgent". All other TFBRs are classified as "Routine".

19.2.4.6 Preventive Maintenance System Coordinating Activities. The central control points for processing TFBRs are the Preventive Maintenance System Coordinating Activities (PMSCA). Depending on the type and level of technical authority necessary to answer the TFBR, PMSCAs will either respond to the originator with a resolution or forward the TFBR to the appropriate NAVSEA technical authority for action.

19.2.4.7 In-Service Engineering Activities. ISEAs are those activities designated by NAVSEA as the technical experts for specific systems and/or equipment. NSWCCD is the ISEA for the majority of Hull, Mechanical and Electrical equipment installed on most ships, outside of Nuclear cognizant areas.

19.2.4.8 Action Activities. Design Activities, ISEAs or other activities under the direction of NAVSEA or other System Commands holding technical authority for systems and equipment take all appropriate action on TFBRs under their cognizance and forward the response to the PMSCAs. The PMSCAs will record the TFBR result in the system and provide the final response to the originator.

19.2.4.9 Urgent Technical Feedback Reports.

a. Urgent TFBRs are those feedbacks reporting technical discrepancies that can result in personnel injury, risk to the safety of the ship or significant equipment damage.

b. PMSCAs shall provide a message response to all Urgent TFBRs within one (1) working day of receipt. If the TFBR is forwarded to a Design Activity or ISEA for resolution, then the Design Activity or ISEA shall provide a message response to all Urgent TFBRs informing the originator of specific actions and/or required changes that will result from the TFBR evaluation within one (1) working day of receipt. This message response shall be addressed to the originator and distributed to TYCOMs. TYCOMs will forward this message to all commands that could be affected by PMS change. The Urgent TFBR response message may recommend pen and ink changes to the affected PMS requirement.

c. PMSCAs shall distribute revised PMS documentation to all affected users within 30 calendar days from receipt, via special issue or Advance Change Notice.

19.2.4.10 Routine Technical Feedback Reports.

a. PMSCAs shall perform technical review, research and provide a response to routine TFBRs where resolution does not require technical authority action.

b. TFBRS that PMSCAs cannot resolve will be sent to the cognizant Design Activity or ISEA. The cognizant Design Activity or ISEA will provide the response to the appropriate PMSCA describing the action taken. The PMSCAs will provide the response to the originator by electronic means.

c. Distribution of the revised MRC to the originator and other affected users will be accomplished via Advanced Change Notices or the next Force Revision.

d. NAVSEA has established a goal of providing answers to TFBRS in one day. While it is realized that some TFBRs will require more extensive research, the majority of TFBRs received can and should be answered in one day.

e. If no revision to PMS documentation is required, pertinent comments will be provided in the response to the appropriate PMSCA. When not concurring with the feedback report, the rationale for the non-concurrence must be provided to the appropriate PMSCA.

19.2.4.11 Type Commander Screening of Technical Feedback Reports. SUBMEPP has been designated by Commander Submarine Force as the TYCOM screening activity for all Submarine Force Activities. TFBRs are accessible via the PMS Management Information System prior to delivery to the NAVSEALOGCEN. Naval Surface Forces TFBRs will be reviewed in accordance with Type Commander direction and SUBMEPP will review Submarine Force proposed TFBRs. The reviewer will:

a. Return the TFBR to the originator under any one or all of the following circumstances:

(1) An answer currently recorded in the TFBR H/T Program satisfies the proposed TFBR. The TFBR will be returned with authorization to implement the previously received response or rationale for non-concurrence.

(2) A similar request has already been submitted and submission of another duplicative request will add no value to the process.

(3) The TFBR requests actions contrary to the direction of this manual or reference (a).

(4) The request does not adequately address or identify the problem. In cases of this nature, return of the TFBR to the originator. For Submarine Force only, this will be a last resort, as SUBMEPP will attempt to contact the originator to better define the issue.

b. Forward the TFBR for further processing taking any one or a combination of the following actions:

(1) Provide amplifying information.

(2) Correct erroneous data.

(3) Provide TYCOM concurrence of the requested change.

(4) Provide a Do Not Concur recommendation to NAVSEALOGCEN/ISEA.

19.2.5 Submarine Safety/Scope of Certification/Survivability and Escape (Submarine Force only).

a. MRCs which direct work/entry within the Submarine Safety (SUBSAFE) Certification Boundary, require Re-Entry Controls to be invoked. In order to ensure that these controls are initiated, Ship's Force personnel shall over stamp those MRCs requiring such work/entry with the word "SUBSAFE" in red ink. New PMS MRC editing programs are being developed where watermarking of MRCs will begin to show up on published PMS MRCs. If a "SUBSAFE" MRC has a "SUBSAFE" watermark, over stamping in red ink as described above is not required.

b. MRCs which direct work/entry within the Scope of Certification (SOC) Certification Boundary, also require Re-Entry controls to be invoked. SOC documentation is applicable and governing to Dry Deck Shelter (DDS) host platforms and must be loaded to Work Center WK02 for those platforms. SOC MRCs are annotated on the MIP with either an "X" or an "R" in the "OTHER" column. Non-DDS platforms need not establish WK02 nor are they governed by SOC directives.

c. Survivability and Escape Equipment and supporting maintenance has come under increased scrutiny since the loss of the Russian submarine KURSK. All MIPs and associated MRCs dealing with Survivability and Escape equipment are to be loaded to Work Centers (WC) in accordance with Table 19-1.

Table 19-1

MIP	SYSTEM	REQUIRED WC
5940/905	SCV and HIS Valves	EA01
5940/006	ExtendAir	EA01

Table 19-1

MIP	SYSTEM	REQUIRED WC
5940/005	SEIE and Crash Bags	WK01 (WF01 for SSN 774 Class)
5940/004	Helicopter Transfer Kit	WK01 (WQ01 for SSN 774 Class)
5940/003	MROD	RL01 (SSBN/GN 726 Class and 21 Class only)
5940/002	SUB MKIIP (ANALOX)	NE01
5940/001	LiOH Curtain	EA01
4413/015	SEPIRB	OC01

19.2.6 Evaluation.

19.2.6.1 Assessments.

a. Goal/Intent. To ensure that the Command's 3-M program is functioning at maximum efficiency and per the requirements of reference (a) and this chapter. The CNO Maintenance Availability should be counted when determining when these inspections are to be done. Evaluations shall be conducted on a not to exceed normal Fleet Response Plan cycle or more frequently when deemed necessary by either the TYCOM, ISIC (Command exercising administrative control) or the unit's Commanding Officer. 3-M assessments for each unit can be scheduled without advanced notice and shall be conducted in accordance with the criteria and format established in Appendix A of this chapter. The TYCOM shall ensure that each activity shall evaluate all departments performing PMS at least once every Fleet Response Plan cycle.

b. Method for Assignment of Numerical Evaluations. Planned maintenance is the foundation of a well executed, effective maintenance program. Therefore PMS must be vigorously prosecuted and thoroughly monitored. The standards of PMS performance must remain high. The minimum performance requirements are identified below. TYCOMs may authorize the utilization of specific check sheets to reflect current directives and system operation modernization provided that attributes provided by Appendix A of this chapter are properly evaluated when applicable.

(1) 3-M Assessment Command Total Score - (Percentage).

(2) 3-M Assessment - Above Standards (90% or greater)/At Standards (80-89.99%)/Below Standards (less than 80%).

19.2.6.2 Assessment Reporting. Significant deficiencies and numerical assessments are reported to the assessed unit's Commanding Officer, ISIC and TYCOM using the format shown in Appendix B of this chapter. Reporting may be accomplished on the entire unit or on a departmental basis.

a. Significant deficiencies require a report of corrective actions taken by the unit to be forwarded to the TYCOM via the ISIC within 30 days following the assessment.

b. Any department receiving an overall evaluation of below standard in either PMS or MDS shall be re-evaluated within a reasonable period of time, not to exceed six months, to ensure below standard areas have been corrected.

c. Each TYCOM shall report the findings of the previous year's assessments to COMPACFLT/USFF N43 at the end of the calendar year.

d. Annually, the United States Fleet Forces Command (USFFC N43) will convene a conference with Commander, Pacific Fleet and all TYCOMs to review the previous year's 3-M Assessment trends, concerns and future direction.

APPENDIX C_4I

STANDARD WORK CENTER CODES FOR LPD 17 CLASS SHIPS

DEPARTMENT	DIVISION W/C	SHIP CODE	CLASS
AIR DEPARTMENT			
	V		
	FLIGHT DECK (ABH)	V101	ALL
	AVIATION FUELS	V401	ALL
	GROUND SUPPORT EQUIP	VM04	ALL
CHAPLAIN DEPARTMENT			
	CH		
	CHAP	CH01	ALL
COMBAT CARGO DEPARTMENT			
	CD		
	CCD	CCD1	MDS ONLY
COMBAT SYSTEMS DEPARTMENT			
	CC		
	RADIO	CC01	ALL
	LAN/ADP	CC02	ALL
	CE		
	TEST EQUIPT ELEC CAL	CE04	ALL
	RADAR REPAIR/NAV	CSE1	ALL
	COMMUNICATION REPAIR	CSE2	ALL
	2-M REPAIR/STO	CSE3	ALL
	COMPUTER REPAIR	CSE4	ALL
	CM		
	ACDS/SSDS	CM01	ALL
	RADARS	CM02	ALL
	MISSILES (RAM, TAS)	CM04	ALL
	CG		
	GWS	CG02	ALL
	ARMORY/FORCE PROTECTION	CG03	ALL
	CARGO/AVIATION MAGZN	CG04	ALL
	IC SHOP	CSE5	ALL
	INTERIOR COMM	CSE6	AS REQUIRED
	CCTV	CSE7	ALL
DECK DEPARTMENT			
	DA		
	FIRST	DA01	ALL
	BOATS	DA02	AS REQUIRED
		DA03	AS REQUIRED
	DB		
	SECOND	DB01	ALL
		DB02	AS REQUIRED

DEPARTMENT	DIVISION W/C	SHIP CODE	CLASS
ENGINEERING DEPARTMENT			
		DB03	AS REQUIRED
	EA		
	AUXILIARY	EA01	ALL
	ENGINE SHOP	EA02	AS REQUIRED
	HYDRAULICS	EA04	ALL
	AC&R	EA05	ALL
	EE		
	ELEC TOOL ISSUE/SAF	EE01	ALL
	ELECTRICAL SHOP	EE02	ALL
	POWER AND REWIND	EE03	AS REQUIRED
	INTERIOR COMM	EE05	AS REQUIRED
	ENGINEERING CONTROL SYSTEMS	EE07	AS MANNING RECEIVED CREATE WC
	EM		
	MAIN MACHINERY RM 1	EM01	ALL
	MAIN MACHINERY RM 2	EM02	ALL
	AUX MACHINERY RM 1	EM03	ALL
	AUX MACHINERY RM 2	EM04	ALL
	AUX MACHINERY RM 3	EM05	ALL
	OIL LAB	EB14	ALL
	GAGE CAL	FCA1	ALL
	ER		
	HULL REPAIR	ER01	ALL
	MACHINERY REPAIR	ER03	ALL
	DAMAGE CONTROL REP	ER04	ALL
	DCPO	ER09	ALL
EXECUTIVE DEPARTMENT			
	EX		
	ADMIN	EX01	ALL
	3MC	EX03	ALL MDS ONLY
	MAA	EX04	ALL
	TRAINING	ET01	ALL MDS ONLY
	OFF SHIP SERVICES	ES01	All Contains All X-Services XRICS
HEALTH SERVICES DEPARTMENT			
	HM		
	MEDICAL	HM01	ALL
	HD		
	DENTAL	HD01	ALL
OPERATIONS DEPARTMENT			
	OI		
	CIC	OI01	ALL
	ON		

APPENDIX E

JOB ORIGINATOR VALUES

JOB ORIGINATOR SEQ	JOB ORIGINATOR SORT	JOB ORIGINATOR CODE	OBS FG	BRKR FG	JOB ORIGINATOR TEXT	SHORT TEXT
25	1	A	0	0	ACCCIT (AIR)/DC (SURF) TSRA HM&E (SUBS)	LOCAL TYCOM
26	7	B	0	0	C5RA (AIR) CSAT/MAPAI (SUBS); CBR INSPECTION (SURF)	LOCAL TYCOM
27	2	C	0	0	LCS/DDG 1000 (SURF) TSRA COMBAT SYSTEMS (SUBS)	LOCAL TYCOM
28	8	D	0	0	CABLEWAY (AIR) I-LVL DEPARTURE (SUBS)	LOCAL TYCOM
42	42	E	0	0	ELEVATOR SUPPORT UNIT (AIR)	LOCAL TYCOM
29	9	G	0	0	ERAT, IRAT, TMIT (SURF)	LOCAL TYCOM
30	10	H	0	0	EQOL/FSL (AIR); 2K-FTA (SURF)	LOCAL TYCOM
43	43	I	0	0	NSLC RESERVED	NSLC
37	17	J	0	0	POET'S (AIR); ICAS (SURF)	LOCAL TYCOM
31	11	K	0	0	TSRA/CSC C5RA (SURF)	LOCAL TYCOM
40	40	L	0	0	PORT ENGINEER WRITTEN JSNs	NATIONAL
39	39	M	0	0	MicroPMR (MPMR)/MSWP (SUB)	LOCAL TYCOM
41	41	N	0	0	CORROSION CONTROL (SURF)	LOCAL TYCOM
32	12	P	0	0	PEPSI (AIR)/SECAP (SURF); PMT OSAR (SUBS)	LOCAL TYCOM
15	15	Q	0	1	CREATED BY RMAIS (NATIONAL)	RMAIS-N
16	16	R	0	0	INSURV (NATIONAL)	INSURV-N
33	13	S	0	0	CEMAT (AIR) SHIP SEMAT (SURF); SAIL DEFICIENCIES (SUBS)	LOCAL TYCOM
45	45	T	0	0	TYCOM (AIR, SURF, SUBS)	LOCAL TYCOM
38	18	U	0	0	TOOLSET FOR INSPECTIONS (BOILERS, DIESELS, ETC.)	OPNAVINST 9220.3
44	6	V	0	0	ALRE ICAV (AIR)	LOCAL TYCOM
34	14	W	0	0	BAWP (AIR)/ICMP; IMF TSRA; ICAS; RMC TSRA (SURF)	LOCAL TYCOM
35	15	X	0	0	BAWP (AIR)	LOCAL TYCOM
36	16	Y	0	0	AIR/MST (SURF); BAWP (AIR)	LOCAL TYCOM
23	5	Z	0	0	MST/CLASS MAINTENANCE PLANS (SURF) CLASS MAINTENANCE PLANS (NATIONAL) MST/M&SWP	LOCAL TYCOM
999,999	999,999	?	0	0	Invalid	Invalid

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ISOLATION SYSTEM SURVEY

Reference: (a) NAVSEA S9073-AW-SNC-010/(U) Ship Acoustical Surveys
(b) NAVSEA S9073-AF-SNC-010/(C), Ship Noise Control
(c) Appropriate Noise Control Guidelines, Road Maps, and Equipment Guide Lists
(d) Appropriate System MIPs

1. Responsibility. Noise Reduction Officer.

2. Procedure. The Noise Reduction Officer shall require Ship's Force to conduct a visual inspection of silencing equipment and components such as resilient mounts, flexible pipe, pipe hangers, ground straps, electrical connections, etc., to ensure they are properly installed, within periodicity, undamaged and not sound shorted. References (a), (b), (c) and (d) apply. When funded, these inspections will be conducted by a NAVSEA designated activity, however, the ship is still responsible for conducting the survey regardless of NAVSEA funding.

3. Frequency. An Isolation System Survey shall be conducted as specified by reference (d) in accordance with reference (a). Additionally, a localized isolation system survey shall be conducted in the area of sound isolated equipment changeouts and in the area of work accomplished on sound isolated systems. When requested and funded, a NAVSEA designated activity shall provide training and assist in the performance of an isolation system survey.

4. Reports. The Noise Reduction Officer shall ensure that all defects found are logged in the ESL and shall report survey results to the Commanding Officer within five working days of completion of the inspection.

5. Review. The Noise Reduction Officer shall maintain a record of all discrepancies noted until corrected.

Enclosure (2f)

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DAMPING MATERIAL SURVEY

Reference: (a) NAVSEA S9073-AW-SNC-010/(U), Ship Acoustical Surveys
(b) NAVSEA S9073-AF-SNC-010/(C), Ship Noise Control

1. Responsibility. Sonar Officer.

2. Procedure. The Sonar Officer shall ensure that a thorough inspection is conducted of all damping material installed in sonar array areas, fairwater, main ballast tanks, and free flood areas, to ensure that no deterioration has taken place in accordance with the guidance provided in reference (a). Reference (b) provides specific information relating to these materials.

3. Frequency. A Damping Material survey shall be conducted as specified at each dry-docking, in accordance with reference (a).

4. Reports. A written report in memorandum form shall be submitted for each inspection and shall include, as a minimum, the date of inspection, names of personnel conducting the inspection, and the discrepancies noted in the ESL.

5. Review. The Sonar Officer shall review the results of each inspection and forward them to the Commanding Officer via the Noise Reduction Officer within five working days of the completion of the inspection. This report shall be retained by the Noise Reduction Officer until all discrepancies have been corrected.

Enclosure (2g)

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APPENDIX E

SUBMARINE SILENCING PUBLICATIONS

X-Applicability

PUBLICATION Note 1	**688**	**726**	**21**	**774**	**AS**
PLATFORM NOISE S9073-A4-SNC-010/(C) USS LOS ANGELES (SSN 688) Class Acoustic Stealth Manual	X				X
NSWCCD-71-TR-2001/020 February 2001 USS SEAWOLF (SSN 21) Class Acoustic Stealth Manual			X		
S9073-AS-PNM-010/(C) Platform Noise Monitoring Analysis for Noise Reduction					X
S9073-AT-PNM-010/(C) Platform Noise Monitoring Analysis for Noise Reduction		X			X
NAVSEA SE 394-NO-MMA-030/(C) AN/BSQ-7 Platform Noise Manual					X
(TBD) Platform Noise Monitoring Analysis for Noise Reduction			X(4)	X(4)	
MACHINERY AND HULL VIBRATION S9073-AL-SBV-010/(C) Structureborne Noise Criteria for Auxiliary Machinery (U) Operation and Maintenance Instructions		X	X(4)	X(4)	X
S9073-AM-SBV-010/(U) Structureborne Noise Acceptance Tests and Monitoring Program for Submarine Auxiliary Machinery (U) Volume I, Procedure (U)	X		X(4)	X(4)	X
S9073-AM-SBV-020/(C) Structureborne Noise Acceptance Tests and Monitoring Program for Submarine Auxiliary Machinery (U) Volume II, Criteria	X		X(4)	X(4)	X
SUBMARINE SONAR DOMES S9165-AC-HBK-010/(U) Submarine Sonar Dome Handbook; Description and Maintenance	X	X	X(4)	X(4)	X
SE300-AY-MMA-010/(U) TRIDENT Glass Reinforced Plastic Bow Sonar Dome		X			X
SE300-AZ-MMA-010 Description, Operation and Maintenance SSN21 Class Sonar Bow Dome			X		
SE300-MA-MMA-011 Glass Reinforced Plastic (GRP) Bow Sonar Dome	X				
MISCELLANEOUS NAVSEA NOISE REDUCTION MANUALS S6360-AD-HBK-010 Special Hull Treatment, Maintenance and Repair for Submarines	X	X	X(4)	X(4)	X
S9311-AM-MME-010/(U) Microbalancing of Ship Service Turbine Generator Sets on SSN/SSBN Submarines	X	X	X(4)	X(4)	X

X-Applicability

PUBLICATION Note 1	**688**	**726**	**21**	**774**	**AS**
S9561-AQ-MMA-010/(U) Low Noise Electrohydraulic Flow Control Servo Valve Model SV-438-10P; Service Instructions					X
S9073-AW-SNC-010/(U) Ship Acoustical Surveys for Submarines		X	X	X	X
S9073-AF-SNC-010/(C) Ship Noise Control	X	X	X(4)	X(4)	X
S9SSB-X9-SSM-09A/(U) SSBN 726 Class Ship System Manual, Volume II, Part IV, Monitoring Subsystem Note 2		X			X
0900-LP-060-2010(U) Electrical Machinery Repair Manual, Volume I, Electric Motor Repairs (Rev 2)					X
0900-LP-060-2020(U) Electrical Machinery Repair Manual, Volume II, Vibration Analysis and Rotor Balance					X
S0600-AA-PRO-230(U) Underwater Ship Husbandry Manual, Chapter 23, Submarine Pre-Deployment Noise Inspection	X	X	X(4)	X(4)	X
MIPs FOR NOISE MONITORING Platform Noise Monitoring MIP SO-544/902	X	SSGN Only	X	X	
TRIDENT Monitoring Subsystem 4190/911 (contains platform monitoring)		X			
Topside and Housekeeping Surveys, reference (g)	X	X	X(4)	X(4)	
Isolation System Survey, Appropriate System MIPs					
Topside and Housekeeping Surveys MIP SO-591/901-A0			X	X	
Airborne Noise Survey, MIP SO-594/001	X	X	X(4)	X(4)	
Vibration Noise Monitoring MIP 4910/Series, See Note 3 (Machinery and Hull)	X	X	X(4)	X(4)	
NOISE CONTROL GUIDELINES 0900-LP-093-9010/(C) Noise Control Guide for SSBN 640 Class					X
Specifically Applicable Noise Road Maps (Selected Record Drawings)	X	X	X	X	X
TRIAL REPORTS NSWCCD or NSWCCD DET BREMERTON: Latest Detection & Detectability Report	X	X	X	X	
NSWCCD or NSWCCD DET BREMERTON: Latest Acoustical Trial Summary Report	X	X	X	X	

j. Monitor the timely submission of URO MRC data report forms and the report of accomplishment for URO MRCs completed by the FMA and Ship's Force to ensure required documentation is submitted in accordance with paragraph 25.2.7 of this chapter. Ensure data report forms are submitted to report component replacement/repair/operation out of specification. Review all Ship's Force accomplished URO MRC data for compliance with the requirements of the URO MRC Program prior to submittal to SUBMEPP.

k. Prior to a ship's underway period, review the ship's certification continuity report, if submitted, to ensure the ISIC and ship's records (including the CSMP) accurately reflect URO MRC status.

l. The Parent ISIC of deploying ships will:

(1) Ensure that any URO MRC due for accomplishment by the ship during its deployment period is identified in the CSMP transfer file and that the ship possesses the AWRs and URO MRC data report forms (if applicable) for reporting job completion.

(2) Provide a message to the applicable deployed FMA/Squadron identifying any URO MRC expected to be accomplished by the deployed FMA and the status of required materials for each submarine deploying to cover the period of the deployment.

m. Deployed Squadrons will review the URO MRC status of deployed submarines upon in-chop. Perform the function of the Parent ISIC in ensuring all URO MRCs are accomplished and reported within the required periodicity while the submarine is deployed.

NOTE: THIS IN NO WAY RELIEVES THE PARENT ISIC OF THE RESPONSIBILITY TO ENSURE THAT THE REQUIRED URO MRCs ARE ACCOMPLISHED WITHIN THE SPECIFIED PERIODICITIES.

n. Prior to the start of a CNO availability, ISIC URO coordinators will:

(1) Assign JCNs to URO MRC items assigned to Forces Afloat in the AWP and screen them to an availability prior to the start of the CNO availability or to the concurrent availability in accordance with the directions in the AWP. Forces Afloat items are accomplished by Ship's Force or Performance Monitoring Team. Care must be taken to appropriately assign URO MRC items to the correct accomplishing activity.

(2) ISIC URO coordinators will not assign JCNs to URO MRC items assigned to the shipyard in the AWP. In the URO MRC inventories and schedules, in the remarks/completion information area, enter "assigned to (name of shipyard) by AWP (name and number of availability)". The shipyard is responsible for performing, auditing and reporting all URO MRC items assigned by the AWP.

(3) URO MRCs assigned to Forces Afloat by the AWP for accomplishment prior to the start of the depot period, but for some reason were not completed, will be reassigned to a concurrent availability or formally reassigned to the shipyard via a supplemental work request.

o. During a CNO availability, URO MRCs assigned to the shipyard by the AWP which are not accomplished during the depot period will be placed on the guarantee list or reassigned to a fleet availability by the TYCOM following the depot period provided the URO MRC does not exceed its due date. The ISIC will be notified of this reassignment by formal correspondence which will include justification and reason why the scheduled and planned requirements were not met.

p. Prior to CNO availability completion, ISICs will audit URO MRCs assigned to Forces Afloat by the AWP and ensure all have been satisfactorily completed and documented within the required periodicity. The ISIC audit will also verify that all URO MRC items coming due within six months of availability completion are complete or assigned to a follow-on fleet availability. Under no circumstances are URO MRC due dates to be exceeded. ISIC Quality Assurance Officers will not be responsible for auditing URO MRCs assigned to the depot in the AWP.

q. Following CNO availability completion, the ISIC URO coordinator will ensure that all URO MRCs assigned to the shipyard were reported and subsequently updated by SUBMEPP. ISICs will only upline the closed JCNs for URO MRCs completed by Forces Afloat.

25.3.4 Submarine Commanding Officer.

a. Ensure all URO MRCs are accomplished within the required periodicity as specified by reference (a), Volume V, Part I, Chapter 5 of this manual and this chapter.

b. For visual inspections in between URO MRC 003 inspections, see Volume V, Part I, Chapter 5, paragraph 5.4.3.d. of this manual for a description of requirements to inspect submarine hull structure in between the periodic URO MRC 003 inspections.

c. Maintain auditable records of the accomplishment of URO MRCs to permit verification of compliance with reference (a), Volume V, Part I, Chapter 10 of this manual and this chapter. These records shall consist of:

(1) A copy of the TYCOM and NAVSEA SUBSAFE Material Certification message from new construction, Depot Modernization Period or overhaul until the ship's current status is reflected in reference (c). When the ship's current status is reflected in reference (c) the messages may be destroyed and the current notice will be retained.

(2) Copies of letter of completion for all URO MRC work accomplishment by other activities, including most recent FMA URO Accomplishment Letter. These may be disposed of once accomplishment is captured electronically on ISIC provided SUBMEPP Schedules and Inventories.

(3) Copies of letters of completion and inspection reports for work accomplished by Ship's Force. The required report forms are located at the end of the individual URO MRCs. A copy of each completed report shall be submitted to the ISIC for review a minimum of 24 hours prior to underway.

(4) One copy each of the current Quarterly URO MRC inventories and schedules as printed from the CD provided by SUBMEPP via the ISIC. Annotate the URO MRC Inventory Report when accepting completed work requests from the FMA or Ship's Force (LWC 991). It is the ship's responsibility for ensuring that the reports reflect the actual configuration, especially with regards to the equipment identity and the Allowance Parts List.

(5) Copy of outstanding URO MRC AWRs to be accomplished by Ship's Force.

(6) One copy of each approved DFS from the requirements of reference (a), Volume V, Part I, Chapter 8 of this manual and this chapter. This authority is based on the following factors and considerations:

(a) The completion of all URO MRCs, or portions thereof, will be reported on AWRs provided by the ISIC in accordance with paragraph 25.2.5.3 of this chapter. Particular care must be exercised to ensure that existing conditions found at the time of inspection and/or need for repair or replacement of components is recorded in detail as prescribed by the URO MRC.

(b) Deviations from URO MRC requirements or periodicities may result in operational restrictions being placed on a unit. In order to determine whether such restrictions are necessary, the TYCOM must be fully apprised of the number and extent of deviations involved.

(c) Allow no deviations in the scheduling or accomplishment of required URO MRC maintenance actions unless formal NAVSEA approval of such deviations has been granted by an approved DFS or as allowed in paragraph 25.2.4 of this chapter. All system disassembles, repairs, and reassemblies must be conducted in accordance with Volume V of this manual, including requests for a DFS, if necessary.

(d) Except in an emergency, refrain from submerged operations if all required URO MRC maintenance actions have not been completed within the specified periodicities unless formal authorization to deviate from these requirements has been granted by

VOLUME VI

CHAPTER 31

SURFACE FORCE SHIP MAINTENANCE PLACEMENT AND OVERSIGHT BUSINESS RULES

REFERENCE.

(a) NWP 1-03.1 - Naval Warfare Publication Operational Report

LISTING OF APPENDICES.

A RMC Spotlight Reports

31.1 PURPOSE. The purpose of this chapter is to provide procedures and guidance regarding ship maintenance placement and oversight business rules. These procedures and guidance affect Regional Maintenance Centers (RMC), Type Commanders (TYCOM) and Ship Maintenance Teams.

31.2 BACKGROUND. Current directives demand a culture of readiness. The process described here addresses the need for a flexible maintenance support system that increases efficiency without compromising effectiveness, and defines a common planning process for ship maintenance and modernization. These processes need to be disciplined with objective measurements and institutionalized with a continuous improvement methodology.

31.3 SHIP MAINTENANCE FUNDING MANAGEMENT BUSINESS RULES.

31.3.1 Scope. The goals of the entitled funding process are to reduce premiums paid for maintenance while simultaneously improving the ability to respond to maintenance and operational requirements. The funding business rules establish the central role of the Ashore Ship's Maintenance Manager working with the ship's Commanding Officer to manage the funds required to support all maintenance for a given ship. Starting with the submission of an overall Maintenance and Modernization Business Plan (MMBP), the Ashore Ship's Maintenance Manager will establish the quarterly distribution of controls from the established annual maintenance target needed to accomplish the ship's maintenance in the most efficient manner. The process provides the ship with a level of funding stability that will provide for the execution of an effective maintenance plan.

31.3.2 Ship and Maintenance Team Business Responsibilities.

a. Each ship's Maintenance Team is led by the Ashore Ship's Maintenance Manager. The Ashore Ship's Maintenance Manager coordinates with the RMC to execute maintenance in accordance with Fleet and TYCOM maintenance policies and directives. The TYCOM shall ensure that each ship's Business Plan is tailored to fit unique geographic and business climate situations.

b. The Maintenance Team (primarily the ship's Commanding Officer working with the Ashore Ship's Maintenance Manager) supports the Fleet Maintenance Officer and TYCOM in identifying budget needs based on well documented requirements in the Current Ship's Maintenance Project (CSMP), the Class Maintenance Plan, the Baseline Availability Work Package, the class Technical Foundation Paper and historical data. The Ship's MMBP identifies the total funding budgeted to support the ship during the execution year, along with advance planning funding for availabilities to be executed in future years. The TYCOM determines how much of the Ship's MMBP they can fund (controls) of the total requested, and how much money per quarter (phasing plan) they can provide for executing the Ship's MMBP. The following guidelines are not all inclusive but should be considered when structuring the phasing plan:

(1) The Maintenance Team will receive their actual spending levels or controls from the TYCOM. The RMC, with the TYCOM's approval, may adjust controls between maintenance teams as required during the course of the execution year. The goal is to establish controls before the execution year starts and then maintain these controls fixed throughout the execution year.

(2) The Maintenance Team provides the RMC and TYCOM with a quarterly spending or phasing plan based on their Ship's controls. The plan should be consistent with the ship's operational cycle and predefined maintenance periods. For example, deployments and underway periods in a given quarter should cause the displacement of Continuous Maintenance (CM) controls to other quarters where the maintenance is likely to occur.

(3) Funds will be provided to Maintenance Teams early enough to avoid premiums associated with late contract award, definitization or assignment of work.

c. Significant deviations from the final negotiated MMBP or controls will be documented in a Summary of Events. It is recognized that the drivers for MMBP changes are often outside the direct control of the Maintenance Team and will be documented as such. The fundamental guidelines for executing at MMBP financial control levels are:

(1) Follow the guidance in Volume II, Part II, Chapter 1 of this manual regarding screening and brokering of work candidates.

(2) During the execution of an availability, growth and new work should be authorized only if the Business Case Analysis indicates that this is the best course of action, taking into consideration all applicable business and operational risks and factors.

d. The Maintenance Team, with the TYCOM's approval, may shift controls between the Chief of Naval Operations (CNO) availability and CM budget lines in order to most efficiently accomplish required maintenance and modernization. No more than 25% of the CM controls for an individual ship shall be moved to the CNO availability without TYCOM approval.

e. The Maintenance Team shall schedule continuous maintenance availabilities per Volume II, Part II, Chapter 2 of this manual. Adjustment of Continuous Maintenance Availability dates shall be coordinated with the RMC and requested from the Immediate Superior In Command via naval message. Date changes shall be minimized in order to realize the maximum benefit from advance planning work. The Maintenance Team may not change CNO availability dates. The Maintenance Team shall resolve CNO availability scheduling issues with the TYCOM via the RMC. The TYCOM shall include Program Executive Office (PEO) Ships in any discussions resulting in availability date changes when Program Alterations are scheduled for the availability.

f. The Maintenance Team shall review proposals for fair and reasonable costs, work scope and applicable technical aspects prior to the Technical Analysis Report (TAR) process.

g. The Maintenance Team has the authority to adjust the MMBP in response to changes in ship operations, planned maintenance periods, and other business case reasons provided the intended distributions do not exceed the total remaining annual budget requirement allocated for that ship. This redistribution will be documented via a revised quarterly phasing plan, a Summary of Events prompting the change, and a formal recovery plan, which will be submitted to the TYCOM via the RMC for approval and adjustment of the Maintenance Team controls. Over the course of the fiscal year, some minor adjustments to the phased funding requirement can be expected. The cognizant RMC, with approval from the TYCOM, will establish funding redistribution limits below which a formal recovery plan would not be required, however, the revised quarterly phasing plan and Summary of Events would still be needed for approval. Ship's Commanding Officers shall ensure that their Immediate Superior In Command is advised of any proposed changes to their MMBP which may affect operational schedules or planned modernization.

h. The Maintenance Team may not unilaterally adjust the MMBP when the adjustments would exceed the total remaining funding controls allocated for the ship. Any requirement in excess of the total MMBP currently approved will require the submission of a revised quarterly phasing plan, a Summary of Events related to the change, and a formal recovery plan. The RMC will evaluate the increased requirement and will make their recommendation for approval to the TYCOM based on total controls available. The RMC may not exceed an individual ship's total funding controls.

i. Depot level maintenance will normally be screened to the Private Sector Industrial Activity (PSIA) contractor. The Maintenance Team may go to other contracting vehicles when:

(1) The PSIA contractor and government cannot agree on cost and scope.

(2) The PSIA contractor does not have the capability or capacity.

(3) Indefinite Delivery, Indefinite Quantity/Commercial Industrial Services (or Simplified Acquisition Purchases and a qualified vendors list) is available.

(4) Other organic RMC assets are available and have the capability for the work.

(5) Work is to be accomplished outside of homeport area.

(6) Work is to be accomplished by an Alteration Installation Team (AIT).

j. During the execution of a maintenance availability, it is anticipated that deficiencies will be identified that could be accomplished as either growth or new work on the existing contract. The Maintenance Team shall perform a Business Case Analysis to decide whether or not to add the work to the current availability or schedule it during another maintenance opportunity.

k. When work deferral reduces the total cost of the job or maintenance completes with a cost under-run and funds can be recaptured, the funding controls will normally remain under the control of the respective Maintenance Team. If the funds are needed for critical work on another ship or to cover a funding shortfall at the TYCOM/Fleet level, the TYCOM will redistribute as necessary. The change will be documented in a revised quarterly phasing plan and the Maintenance Team(s) should provide to the RMC an impact statement and recommended plan to mitigate the effects of the plan change.

l. The RMC coordinates with the Maintenance Teams to comply with their approved ship's MMBPs. The RMCs shall make a monthly MMBP execution report to the TYCOM.

m. Maintenance Teams will issue funds to the appropriate executing activity by submitting a planning estimate to the TYCOM (via the RMC) and the TYCOM will issue the actual funding document.

n. PSIA contractors normally submit cost reports to Maintenance Teams on a bi-weekly basis. The Maintenance Team will utilize these reports to assess the cost performance of the PSIA contractor and address items of concern to the RMC and/or TYCOM.

31.3.3 Regional Maintenance Center Business Responsibilities.

a. The RMC Commander has the authority to execute Surface Force Ship maintenance and shall do so in accordance with Fleet and TYCOM policies and directives.

b. The RMC Commander develops an execution year spending plan for the TYCOM's approval based on the TYCOM approved MMBPs.

c. The Fleet Commander spending controls are issued to the TYCOM who then assigns spending controls to each Maintenance Team, informing the RMC. The RMC issues quarterly spending controls to all of the Maintenance Teams in accordance with the TYCOM's final TYCOM approved MMBP for each ship.

d. The RMC Commander will evaluate MMBP adjustment requests based on the Summary of Events, recovery plan, and quarterly adjustment provided by the Maintenance Teams. If the RMC supports the request, the RMC will forward the issue to the TYCOM for approval.

e. The RMC Commander shall request approval from the TYCOM whenever redistribution of annual ship funding is required. The RMC shall provide the TYCOM a record of all control changes for tracking purposes. Redistribution of funds between Active Fleet and Reserve Fleet funding lines or between different TYCOMs requires approval by the Fleet Commander.

f. In the event of significant program wide control changes the RMCs shall:

(1) Provide an impact statement to the TYCOM regarding the effect on the execution of maintenance.

(2) Provide a recommendation to minimize the impact on Force readiness.

g. The RMC shall evaluate the financial status of each of the Maintenance Teams on a monthly basis.

h. The RMC shall submit monthly financial summary reports to the respective surface TYCOM. This report provides a comparison of actual versus planned funding execution. The last report for the execution year will include an annual summary showing how the funds were utilized, sorted by Naval Operations resource sponsor.

i. C3/C4 Casualty Reports (CASREP), or a C2 CASREP with reasonable potential to become a C3/C4 CASREP, are identified as emergent maintenance and will be funded with emergent dollars. Emergent work will be scheduled to minimize premiums in as much as the operational schedule will permit. C2 CASREPs will normally be corrected using the CM Process. Consideration will be given to schedule all maintenance, including emergent, at an opportune time to reduce premiums. The RMC Commander may, with the respective TYCOM's prior approval, convert Emergency Maintenance funds to execute CNO availability or CM maintenance.

j. Except as stated in paragraph 31.3.3i. of this chapter, C2 CASREPs will be corrected during CM periods (both scheduled Continuous Maintenance Availabilities and maintenance Windows of Opportunity) using CM funds. C2 CASREPs discovered during a CNO availability or Continuous Maintenance Availability will be addressed as new work. C2 CASREPs may be allowed to "age" until the appropriate repair opportunity. The RMC Commander has the responsibility to request TYCOM authorization when Emergency Maintenance funds should be used for the correction of C2 CASREPs or other non-CASREP related, but nonetheless urgent maintenance. The RMC is required to approve any planned delay of action on a CASREP. In the event that the delay effectively constitutes a CASREP deferral in accordance with reference (a), the RMC will forward the deferral recommendation to the TYCOM for approval.

k. The RMC Commander will generate monthly maintenance availability metrics for all assigned ships planning for a CNO availability and ships in a CNO availability. These metrics will be briefed at least monthly to the TYCOM at Surface Team 1 Maintenance and Modernization Continuous Improvement Team meetings. The business rules for preparation of these forms are included in Appendix A.

31.3.4 Type Commander Responsibilities.

a. The TYCOM establishes Force maintenance policies and directives, consistent with Fleet Commander guidance, and authorizes the Maintenance Team and RMC to act as the principal agent to execute those policies and directives.

b. The TYCOM will provide a list of Fleet Alteration requirements for the execution year as input to the ship's business plan no later than 15 February in the year prior to execution. To assist with business plan development, the TYCOM will identify which alterations are scheduled for accomplishment and will provide the Maintenance Team and RMC with the cost estimates for accomplishment.

c. When the Fleet issues the spending controls to the TYCOM, the TYCOM will in turn issue spending controls to the RMC and update those spending controls on a quarterly basis.

d. The TYCOM has the authority to recapture spending controls previously issued to the Maintenance Teams and RMCs in response to unforeseen Force budget requirements. This will be used as a last resort, as the goal is to maintain stable funding plans in support of ships' MMBPs.

e. If it is determined that the best course of action is not to fund a CNO availability, the TYCOM must (with concurrence from United States Fleet Forces or Commander, Pacific Fleet, whichever is appropriate) approve the removal of funds before the RMC initiates this action. The TYCOM shall ensure PEO Ships is included in the decision process to not fund any availability where Program Alterations are scheduled for accomplishment during that availability.

f. The TYCOM will evaluate MMBP adjustment requests forwarded by the RMC based on the Summary of Events, recovery plan, and quarterly adjustment provided by the Maintenance Team. If the TYCOM supports the request but lacks spending "controls" required, the TYCOM will forward the issue to the Fleet for approval and additional controls.

g. The TYCOM will evaluate the RMC's end of month financial status reports to assess the degree of conformance to the approved RMC consolidated spending plan.

31.4 MAINTENANCE PROPOSAL REVIEW. The maintenance process must be flexible enough to be able to respond to changing operational requirements. The key to this flexibility is to reduce the cycle time involved prior to the actual execution of the maintenance. The Continuous Estimating, Incremental Planning Review Process

guidelines will be utilized by the Maintenance Team to approve all proposed maintenance actions within time and budget constraints. The guidelines apply equally to Advance Planning, Long-Lead-Time Material, CNO, CM and Emergent Maintenance work.

31.4.1 Concept. The entitled process concept enables the Maintenance Team to review planned work items and estimates on a continuous basis as they are received. The Ashore Ship's Maintenance Manager is empowered to shift work items from CNO to CM or vice versa to optimize work scheduling and reduce premium exposure and overall cost.

31.4.2 Business Rules.

a. The Ashore Ship's Maintenance Manager with support from the Maintenance Team shall analyze the work package against the availability schedule. In general, Maintenance Teams should consider scheduled availability lengths fixed and attempt to adjust the work package to ensure it can be completed within the scheduled dates. When justification exists, the Maintenance Team should recommend availability length adjustments to the TYCOM to minimize premiums.

b. The Ashore Ship's Maintenance Manager with support from the Maintenance Team shall analyze the work package against potential CM windows of opportunity to maintain the scheduled dates of the availability, to best level load the contractor, and to minimize premiums.

c. The Maintenance Team may not change CNO availability dates and shall resolve scheduling issues with the TYCOM via the RMC. The TYCOM shall include PEO Ships in any discussions resulting in availability date changes when Program Alterations are scheduled for the availability.

d. Work packages shall be developed on a continuous basis starting no later than A-240 days in order to realize cost savings and avoid premiums associated with late identification of work in accordance with the business rules contained in Volume II, Part II, Chapter 2 of this manual.

e. When capability and capacity allow, work shall be brokered to the Fleet Maintenance Activity, otherwise, Depot level maintenance will normally be screened to the PSIA contractor. The Maintenance Team may go to other contracting vehicles when:

   (1) The PSIA contractor and government cannot agree on cost and scope.

   (2) The PSIA contractor does not have the capability or capacity.

   (3) Other organic RMC assets are available and have the capability for the work.

   (4) Work is to be accomplished outside of homeport area.

   (5) AIT/Indefinite Delivery, Indefinite Quantity has been identified by the Naval Supervisory Authority (NSA) as the preferred provider.

f. The Maintenance Team shall review proposals for fair and reasonable costs, work scope and applicable technical aspects prior to the TAR process.

31.4.3 Continuous Estimating Incremental Planning Review Process. The Continuous Estimating Incremental Planning Review Process (CEIPRP) is the process by which the Maintenance Team continuously compares PSIA contractor work item estimates to independently developed government work item estimates throughout the development of the work package. Completion of package development and submission of the 100% Work Package Proposal is followed by the Technical Cost and Scope analysis, proposal revisions, TAR, establishment of the Prorate, Pre- and Post Business Clearance, and signing of the bi-lateral contract modification (definitization).

31.4.3.1 Concept. Use of the CEIPRP is intended to achieve flow of work items into the work package up to 100% lock while continuously comparing government to contractor estimates to avoid last minute surprises due to estimate differences. This process also allows for flexibility up to the 100% lock in order to develop a package that best addresses the material condition of the ship as it begins the availability. Following the planning activity specification development, the PSIA contractor continuously submits a Class C Planning Estimate. Simultaneously, the government Maintenance Team continuously develops the Independent Government Estimate (IGE). These two estimates are then compared and any differences in scope and price (generally those in excess of 10% difference) are resolved. Resolving these differences during work package development also reduces the

amount of time required for the TAR process. Following the 100% package lock, the planning activity completes planning, the PSIA contractor assembles and submits the 100% package proposal. Based on the 100% package proposal, an estimate of prorates is communicated to resource sponsors along with a final funding notification (as early as possible but no later than 14 days prior to the need date) in order to ensure on-time funding. This is followed by accomplishment of the TAR and business clearance processes.

31.4.3.2 Business Rules.

a. The contractor shall continuously submit Class C estimates for each work item as a bottom line work item cost. The Planning Estimate provides a budget level tracking and establishes a basis for determining cost reasonableness. Paragraph cost estimates will be provided by the PSIA contractor when requested by the government to resolve differences between the contractor's Planning Estimate and the IGE.

b. The IGE is the government's detailed estimate to the trade and paragraph level. The IGE provides budget level tracking and establishes a basis for determining cost reasonableness allowing the government to validate the Planning Activity Estimate and resolve any differences in scope or cost estimates.

c. The package will be assessed at the 50% and 80% budget to ensure that work has been brokered to planning activities continuously. These milestones also reinforce timely identification of work by Ship's Force. Following the 50% and 80% milestones, the planning activity will complete planning and estimating for all work brokered to date.

d. Upon completion of the Planning Activity Estimate, that estimate will be compared to the IGE to gage whether the government and the Planning Activity are estimating a similar scope of work. If the individual work item Class C estimates vary by more than 10% or $10,000 (whichever is higher), the government Program Manager will establish a scoping conference to discuss/resolve the scope of work.

e. The 100% package lock is the official milestone to mark identification of 100% of the work requirements for an availability based on the MMBP budget. All work added to or deleted from the package after the 100% lock will be via an errata, addendum or inducted as new work via the Request for Contractual Change Process.

f. The Final Funding Notification with Estimates of Prorates will be a formal communication with resource sponsor (Email or Naval Message) with funding requirements. Estimate prorates based on Basic Work Package Proposal man-hour estimates, historical prorate data and sponsor requirements. The Maintenance Team should ensure that estimates provided to various sponsors throughout the planning process include anticipated prorate amounts.

g. The TAR will include all necessary information to develop a negotiation strategy, pricing recommendation and rationale to support a scope conference, if necessary, and subsequent work package cost definition. It shall include background information, essential contractor proposal information, method of evaluation, scope of work, analysis of work items with rationale to support questionable costs and summary of pricing recommendations.

h. A scoping conference, if necessary,shall include the appropriate members of the Project Team, Technical Analyst, Administering Contracting Officer (ACO) or Contract Negotiator and contractor. All work items with unsubstantiated differences identified in the TAR are discussed to reach agreement on the scope of work and contractor's proposal. When all differences have been resolved, the conference shall end with an agreement on labor hours, subcontracts and materials between the contractor and ACO or Contract Negotiator.

i. The ACO or Contract Negotiator will take the work scope conference results and ensure correct application of indirect rates, fees and prepare appropriate documentation for signature and cost definition.

j. The ACO representative will negotiate target costs for new work.

k. The Project Team will minimize growth and overtime. Prior to definitization, growth items that cannot be settled by the Project Team shall be forwarded to the Technical Analyst to be settled in the TAR process. For Surface Force ships only, the NSA Chief Engineer will review requested growth and new work items for technical compliance.

31.4.3.3 Schedule Modification. Operational commitments, port loading or other reasons may require modification to availability schedules and milestones may need to be adjusted accordingly as discussed in further detail in Volume II, Part II, Chapter 2, paragraph 2.5 of this manual.

31.5 GUIDANCE FOR FIRM FIXED PRICE CONTRACTS.

31.5.1 Overall Process. Unless specifically noted otherwise, the following are common practices in both the PSIA and Firm Fixed Price (FFP) contracting environments:

a. Validation, screening, and brokering process.

b. Maintenance Teams.

c. Planning Board for Maintenance.

d. MMBPs.

e. Movement of work between CNO and CM.

f. Maintenance Team metrics.

31.5.2 Firm Fixed Price Planning. Government activities shall accomplish FFP planning with the goal of compiling a complete, clear, concise and well-defined work package. The Ashore Ship's Maintenance Manager shall work with the Maintenance Team to define the work scope and solicitation in a FFP environment. The following points shall be considered in the planning process for FFP contracts:

a. Assessments are an important part of the planning phase of any availability. The Ashore Ship's Maintenance Manager shall ensure assessment results are considered for inclusion into the work package. The Ashore Ship's Maintenance Manager shall also determine if additional assessments should be accomplished so that the material condition of critical systems and equipment can be determined prior to the work package lock date.

b. Proper work screening between CNO and CM availabilities is critical in order to reduce costs and premiums.

c. Work placed in a CNO FFP Availability should be limited to work requiring a facilitated shipyard, work that can not be accomplished in short CM availabilities, or work that must be accomplished in the availability to support operational readiness.

d. When work, following the guidelines identified in paragraph 31.4.2b. of this chapter, cannot be accomplished in the designated time period without excessive premiums or with a low probability of success, the RMC Commander shall be informed. Conversely, the RMC Commander shall also be informed when there is insufficient work to justify a CNO availability.

e. The use of proven, re-useable FFP work specifications by Maintenance Teams and planning activities should be the norm, not the exception.

f. Ashore Ship's Maintenance Manager with assistance from the Maintenance Team shall review all contract work specifications prior to issue, and specification review changes shall be recorded and tracked by the planning activity.

31.5.3 Firm Fixed Price Placement. When building the availability package in preparation for contract placement, consideration shall be given to risk mitigation to avoid premiums during execution due to late work identification. The use of Reservations and Option Items builds in flexibility to FFP contracts when it is impossible or impractical to adequately define all requirements.

a. Option Item guidelines:

(1) Option Items are to be utilized in a contract solicitation when there is a strong expectation the work will be accomplished if the prerequisite conditions requiring the work are met as a result of an event, inspection, or milestone.

(2) Prior to solicitation, the availability schedule shall be evaluated to ensure each Option Item can be accomplished during the contract performance period.

(3) Material status shall be confirmed to ensure Option Item material will be available to support the production schedule.

(4) Funding for Option Items will be managed by the Project Manager within the ship's designated annual funding allowance under their MMBP, by either designating Reservations in the availability budget or by using CM funds.

(5) Option Items shall be invoked as early as possible, preferably during the period between contract award and the start of the availability. The later an option is exercised, the greater the probability that premiums will be paid for its execution.

(6) A listing of all Option Items, including their respective "Not Later Than" invocation dates, shall be provided to the RMC by the planning activity in the turnover letter. The Project Manager must be made aware of all Option Items and invocation dates well in advance of the availability start date. (The Maintenance Team provides the Option Items and invocation dates. This is discussed in the contract solicitation review board.)

(7) Option Items are not to be used as a "shopping list", and are reserved for work with a high expectation of being required. Lack of funds for a specific work item shall not be used as justification for including that work as an Option Item.

b. During FFP solicitation, bidder's questions may be submitted to the Procurement Contracting Officer. The following processes related to bidder's questions should be followed:

(1) The Maintenance Team shall not respond directly to bidder's questions. There must be a single point of contact for bidder's questions and answers. If queried directly, the Maintenance Team shall refer the bidder to the Advance Planning Manager.

(2) The RMC Procurement Contracting Officer shall ensure the Maintenance Team is provided with e-mail notification of all bidder's questions.

(3) The Maintenance Team shall provide inputs to bidder's questions to the Procurement Contracting Officer within 24 hours (unless the response is required immediately, or another time period is agreed upon).

(4) The Maintenance Team input shall be considered when formulating the Government's response.

(5) The final answer to bidder's questions shall be made available to the Maintenance Team via e-mail or other electronic means.

c. FFP Oversight. During FFP availability execution, oversight of contract changes is critical to managing costs and reducing premiums. Processes that assist in the management of funds and reduction of premiums include:

(1) Conduct a business case for all growth and new work to determine the most efficient and cost effective time to execute the work.

(2) Recognize that late work premiums exist, and account for these premiums when it is necessary to add growth or new work to the availability.

(3) The RMC Project Manager shall identify and record all validated Delay and Disruption charges paid by the Government using growth codes as a result of Navy actions. Discuss each Delay and Disruption event during Planning Board for Maintenance to prevent repeat occurrences.

APPENDIX A

RMC SPOTLIGHT REPORTS

1. PURPOSE. Establish guidelines for preparing an RMC Spotlight Presentation. This presentation is applicable to all ships undergoing planned (CNO/CMAV) availabilities.

2. SCOPE.

   a. This business rule describes the format and processes required to compile an RMC Spotlight Presentation.

   b. Applies to all Regional Maintenance Centers (RMC).

   c. Implements the standardized process to be used by all RMCs.

3. GENERAL REQUIREMENTS/BACKGROUND.

   a. The RMC Spotlight Presentation consists of six sections: Project Spotlight Chart, Premium Performance Chart, Package Build Chart, Hot Wash Status Report, and Global Hot Wash Data.

   b. The Project Spotlight Chart is a snapshot of the planning milestone status and execution performance for the RMC's CNO availabilities. Examples of FFP and PSIA Spotlight Charts are given in this appendix.

   c. The Premium Performance Chart is a snapshot of the performance with regard to premiums and churn for a specific ship in the execution phase of a CNO availability. An example Premium Performance Chart is given in this appendix.

   d. The Package Build Chart is a snapshot of the relationship between the value of the work package, as it is being developed, to the planned and budgeted limits for a specific ship in the planning phase of a CNO availability. It is extracted from the budget tab in Navy Maintenance Database (NMD). An example Package Build Chart is given in this appendix.

   e. The Hot Wash Status Report is a snapshot of an RMC's local and global Hot Wash issues from past CNO availabilities. An example Hot Wash Status Report is given in this appendix.

   f. The Global Hot Wash Data Report provides amplifying information regarding current global Hot Wash issues. An example Global Hot Wash Data Report is given in this appendix.

4. PROCESS.

   a. This appendix defines the RMC Spotlight Presentation, but additional slides may be included for amplification on a conservative basis. The RMCs shall comply with standard formats.

   b. Project Spotlight Chart.

      (1) The left column of the chart shall list all upcoming CNO availabilities for the port within the A-360 window and the next availability to reach A-360 at a minimum.

      (2) The columns for the milestone will be populated and colored in accordance with the following guidelines:

         (a) The top row contains the scheduled milestone date.

         (b) The bottom row is populated with the actual date the milestone was accomplished.

         (c) The top row is colored red/yellow/green (R/Y/G) after the milestone has been accomplished.

            1 Green – milestone met on schedule.

            2 Yellow – milestone 1-7 days late.

            3 Red – milestone >7 days late.

(d) The bottom row is colored with a R/Y/G hash pattern depending upon impact to the next milestone. The bottom row is only colored for accomplished milestones and the follow-on milestone. It may be acceptable to color a future milestone if there exists substantial evidence that it will not be accomplished on time and will have a significant impact on the follow-on milestone.

1 Green hash – next milestone will be met.

2 Yellow hash – moderate risk for next milestone.

3 Red hash – high risk for next milestone.

(3) Comment blocks/balloons may be used to provide amplifying information as necessary.

c. Premium Performance Chart.

(1) The Premium Performance Chart is developed by exported data from NMD to an Access database. Commander, Navy Regional Maintenance Center metrics division is the point of contact for the procedure.

(2) Premium Performance Charts are ordered in the sequence listed on the Project Spotlight Chart.

(3) Comment blocks/balloons may be used to provide amplifying information as necessary.

d. Package Build Chart.

(1) The Package Build Chart is developed with the package build data from NMD. The information is available in the planning side of NMD under planning budget.

(2) Package Build Charts are ordered in the sequence listed on the Project Spotlight Chart.

(3) Comment blocks/balloons may be used to provide amplifying information as necessary.

e. The Hot Wash Status Report is maintained by the RMC Hotwash Coordinator.

f. The Global Hot Wash Data Report is to include the following, at a minimum, for the reporting period in which input is received:

(1) Discussion of best practices.

(2) Discussion of global issues including resolutions.

(3) Premium goal vs. actual (and if exceeded, an explanation as to why).

(4) Identification of premium drivers.

PROJECT SPOTLIGHT CHART

SHIP/HULL	Scheduled CNO Avail Dates (Start/ Compl)	Controls $M (TYCOM/ Program)	Issue HMP/ LOA incl AITs (Sched /Actual)	Task/Fund SID Developmt (Sched/ Actual)	Issue/ Deliver SIDs to NSA for Contractors and AITs (Sched /Actual)	FFP Level Package Locked (Sched/ Actual)	TYCOM and Program Funding Verified (Sched/ Actual)	FFP SHAPEC Package Turnover (Sched/ Actual)	FFP Solicit Bids (Sched/ Actual)	Provide Availability Funding for Modern- ization to RMC	FFP Award (Sched/ Actual)	Actual CNO Avail Dates (Start/ Compl)	Churn Percent (TYCOM/ Program)	Growth & New Work $K (TYCOM/ Program)	Premium Percent (TYCOM/ Program)
			SPM/ NAVSEA/ TYCOM	SPM/NSA/ AIT/TYCOM RMC Mgr	Planning Yard	MT	TYCOM	SHAPEC	RMC	SYSCOMS /PEO/ TYCOM	RMC				
			A-360	A-330	A-180	A-170	A-120	A-135	A-120	A-75	A-60				
DESTROYER	15-Jun-05	$2.9	20-Jun-04	20-Jul-04	17-Dec-04	27-Dec-04	15-Feb-05	31-Jan-05	15-Feb-05	1-Apr-05	16-Apr-05	15-Jun-05	19.8%	$616	15.1%
DDG-XX	7-Sep-05		1-Jun-04	6-Jul-04	1-Dec-04	18-Jan-05	1-Oct-05	16-Feb-05	18-Mar-05	1-Apr-05	11-May-05	7-Sep-05	0.6%	$14	0.2%
CRUISER	2-Feb-06	$8.9	7-Feb-05	9-Mar-05	6-Aug-05	16-Aug-05	5-Oct-05	20-Sep-05	5-Oct-05	19-Nov-05	4-Dec-05				
CG-XX	2-Apr-06		11-Jan-05	7-Dec-04	23-Jun-05	15-Oct-05									

EXPLANATION OF LATE MILESTONE

LEGEND	
	MILESTONE MET ON SCHEDULE
	MILESTONE 1-7 DAYS LATE
	MILESTONE >7 DAYS LATE
	NEXT MILESTONE WILL BE MET
	MODERATE RISK FOR NEXT MILESTONE
	HIGH RISK FOR NEXT MILESTONE

PROJECT SPOTLIGHT CHART

SHIP/HULL	Scheduled CNO Avail Dates (Start/ Compl)	Controls $M (TYCOM/ Program)	Issue HMP/ LOA incl AITs (Sched / Actual)	Task/Fund SID Developmt (Sched/ Actual)	Issue/ Deliver SIDs to NSA for Contractors and AITs (Sched/ Actual)	Provide Avail Funding for Modern. to RMC (Sched/ Actual)	PSIA 100% D-Lvl maint work pkg 2K's locked (Sched /Actual)	PSIA Contractor Publish pkg in NMD (Sched/ Actual)	PSIA Definitize Work Package (Sched/ Actual)	Actual CNO Avail Dates (Start/ Compl)	Churn Percent (TYCOM / Program)	Growth & New Work $K (TYCOM/ Program)	Premium Percent (TYCOM/ Program)
			SPM/ NAVSEA/ TYCOM	SPM/NSA/ AIT/TYCOM RMC Mgr	Planning Yard	SYSCOM/ PEO/ TYCOM	MT	PSIA Contractor	RMC				
			A-360	A-330	A-180	A-75	A-75	A-60	A-45				

LEGEND	
	MILESTONE MET ON SCHEDULE
	MILESTONE 1-7 DAYS LATE
	MILESTONE >7 DAYS LATE
	NEXT MILESTONE WILL BE MET
	MODERATE RISK FOR NEXT MILESTONE
	HIGH RISK FOR NEXT MILESTONE

APPENDIX A

EXECUTIVE SUMMARY SHEET (Cont'd)

V. PLANNED WORK ROLLUP (Cont'd)

Target	Item	Notional Cost
UNF	Unfunded Avail Total (RMAIS)	$0
AP	Advanced Planning (Next FY Avail)	$0
CNO	Fleet Alts	$0
N/A	Award Fees (Auto fill from Controls & Phasing)	$0
N/A	Services (Auto fill from Controls & Phasing)	$0
	Total Requirement	**$0**
	Total MMBP	**$0**
	SHORTFALL	**$0**
	CNO Risk	$0
	High $0	
	Medium $0	
	Low $0	
	CM Risk	$0
	High $0	
	Medium $0	
	Low $0	
	AP/AF Risk	$0
	High $0	
	Medium $0	
	Low $0	

APPENDIX A

EXECUTIVE SUMMARY SHEET (Cont'd)

CONTROLS AND PHASING						
FYxx xxRMC BUDGET FOR USS XXX (XX-XX)						
			Total/Phasing	**Q1**	**Q2**	**Q3**	**Q4**
FY xx TYCOM Budget			$0	$0	$0	$0	$0
FY xx DIL Budget			$0	$0	$0	$0	$0
FY xx PROGRAM Alt Budget			$0	$0	$0	$0	$0
FY xx TOTAL MMBP Budget			**$0**	**$0**	**$0**	**$0**	**$0**
FYxx xxRMC TYCOM CNO BUDGET							
FYxx CNO BUDGET	**TOTAL**	Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**	
	$0	**$0**	$0	$0	$0	$0	
			Budget	**Comments**			
	1.	Maintenance	$0	Estimate			
	2.	Fleet SHIPALTS		Based on Modernization Plan, LOAs			
Sum of 1,2,c,d	a.	Package Subtotal	$0				
	b.	Growth % 12.00%	$0	% of (a) based on RMC policy, cannot exceed 12%			
	c.	Service / Support % 17.00%	$0	Historical percentage of (a) for 800/900's, adjusted for program Alt prorated costs			
	d.	LLTM	$0	As required			
Change if 10% is not correct	e.	Award Fee % of (a+b+d) 11.23%	$0	For Cost contracts only Max % possible based on contract terms			
	f.	Other costs	$0	Work accomplished outside of Avail contract			
	g.	Pierside Refurb	$0	As applicable at each RMC			
Business Adj Factor	h.	BAF % of (a+b+e) 0.00%	$0	Enter positive percent value if Gov Estimate expected to be LOWER than winning Bid / negotiated Target Cost			
CNO AVAIL BUDGET			**$0**				
FY xx FUNDING REQ			**$0**	IF AN AVAIL CROSSES FISCAL YEARS, PREDICT GROWTH AND ASSOCIATED AWARD FEE FOR THE FOLLOW ON FY			
FY xx FUNDING REQ			**$0**				
TOTAL CNO Execution Control			$0	As established by RMC / TYCOM			
Prior FY Funds			$0	AP or PSIA contractor funds still available in execution			
TOTAL CNO CONTROL			**$0**	**Total SERMC CNO Avail Funding Available**			
FYxx xxRMC TYCOM CM BUDGET							
FYxx CM BUDGET	**TOTAL**	Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**	
	$0	**$0**	$0	$0	$0	$0	

APPENDIX A

EXECUTIVE SUMMARY SHEET (Cont'd)

CONTROLS AND PHASING (Cont'd)					
				Budget	Comments
	1.	Maintenance		$0	Estimate. Before growth
	2.	Fleet SHIPALTS		$0	Estimate
Sum of 1,2	a.	CM Package Subtl		$0	Base Budget. No Growth or Fees.
	b.	Growth %	12.00%	$0	% of (a) based on RMC policy, cannot exceed 12%
Change if 10% is not correct	c.	Award Fee % of (a+b)	0.00%	$0	For Cost Contracts only Max % possible based on contract terms
	d.	Other costs		$0	
CM Budget				**$0**	
FYxx CM Control				$0	As established by RMC/TYCOM
Prior FY Funds				$0	AP or PSIA contractor funds still available in execution
TOTAL CM CONTROL				**$0**	**Total SERMC CM Funding available**

Advance Planning Budget		Q1	Q2	Q3	Q4
FY xx CNO Avail Advance Planning	**$0**	$0	$0	$0	$0
FY xx CNO Avail Advance Planning	**$0**	$0	$0	$0	$0

FY10 SERMC TYCOM DIL Budget							
FY xx DIL Budget	**TOTAL**	Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**
	$0	**$0**	$0	$0	$0	$0

				Budget	Comments
	1.	Maintenance		$0	Estimate. Before growth
	2.				
Sum of 1,2	a.	DIL Package Subtl		$0	Base Budget. No Growth or Fees.
	b.	Growth %	12.00%	$0	% of (a) based on RMC policy, cannot exceed 12%
Change if 10% is not correct	c.	Award Fee % of (a+b)	0.00%	$0	For Cost Contracts only Max % possible based on contract terms
	d.	Other costs		$0	
DIL Budget				**$0**	
FYxx DIL Control				$0	As established by RMC/TYCOM
Prior FY Funds				$0	AP or PSIA contractor funds still available in execution
TOTAL DIL CONTROL				**$0**	**Total SERMC DIL Funding available**

APPENDIX A

EXECUTIVE SUMMARY SHEET (Cont'd)

CONTROLS AND PHASING (Cont'd)								
FYxx CNO AVAIL Program ALT Modernization Budget								
NAVSEA Program Alts	**TOTAL**			Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**
	$0			**$0**	$0	$0	$0	$0
				Budget	**Comments**			
	1.	Labor & Matl		$0	From Mod Plan, LOAs			
	2.	Services		$0	Negotiated with RMC for 800/900's			
Sum of 1,2	a.	Package Subtotal		$0	Base Budget. No Growth or Fees.			
	b.	Growth %	10.00%	$0	% of (a) based on RMC / PARM policy			
	c.	Award Fee % of (a+b)	11.23%	$0	For Cost contracts only Max % possible based on the contract			
	d.	BAF % of (a+c)	0.00%	$0	Enter positive percent value if Gov Estimate expected to be LOWER than winning Bid / negotiated Target Cost			
	e.	Other costs		$0	Explain in comments			
NAVSEA Budget				**$0**	Budget cannot exceed control			
FYxx NAVSEA Control				**$0**	From Mod Plan, LOAs			
SPAWAR Program Alts	**TOTAL**			Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**
	$0			**$0**	$0	$0	$0	$0
				Budget	**Comments**			
	1.	Labor & Matl		$0	From Mod Plan, LOAs			
	2.	Services		$0	Negotiated with RMC for 800/900's			
Sum of 1,2	a.	Package Subtotal		$0	Base Budget. No Growth or Fees.			
	b.	Growth %	10.00%	$0	% of (a) based on RMC / PARM policy			
	c.	Award Fee % of (a+b)	11.23%	$0	For Cost contracts only Max % possible based on the contract			
	d.	BAF % of (a+c)	0.00%	$0	Enter positive percent value if Gov Estimate expected to be LOWER than winning Bid / negotiated Target Cost			
	e.	Other costs		$0	Explain in comments			
SPAWAR Budget				**$0**	Budget cannot exceed control			
FYxx SPAWAR Control				**$0**	From Mod Plan, LOAs			
NAVAIR/ OTHER ALTS	**TOTAL**			Phase check sum	**Q1**	**Q2**	**Q3**	**Q4**
	$0			**$0**	$0	$0	$0	$0
				Budget	**Comments**			
	1.	Labor & Matl		$0	From Mod Plan, LOAs			
	2.	Services		$0	Negotiated with RMC for 800/900's			

6 Ensuring PCMS is included in the command PMS spotcheck program.

7 Assigning a command PCMS coordinator responsible to the PCMS Department Head for the detailed implementation of PCMS maintenance and operation.

8 Designate in writing the maintenance assignments by all work centers assigned PCMS responsibility.

(b) Supply Officer: Maintain Allowance Parts List stocks of PCMS materials and sufficient Allowance Equipage List items to support maintenance requirements. All shipboard stocks must be within shelf life.

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VOLUME VI

CHAPTER 39

MAINTENANCE AND MODERNIZATION PERFORMANCE REVIEW AND LESSONS LEARNED CONFERENCE

FOR SURFACE FORCE SHIPS

LISTING OF APPENDICES.

A Access to Lessons Learned Conference and MMPR Sites on the ST1 Portal

39.1 PURPOSE.

a. The Maintenance and Modernization Performance Review (MMPR) is a semi-annual forum for maintenance and modernization professionals to share, identify issues and focus on continuous process improvement opportunities within the Surface Maintenance and Modernization Community. The MMPR provides a path for communication between the individual Project/Ship Lessons Learned Conferences (LLC) and the top-level maintenance and modernization leadership.

b. The primary purpose of the LLC is to facilitate communication between Project Teams of all Surface Force ship classes across all Regional Maintenance Centers (RMC) and supporting activities at various stages in their availability to assist in improving cost, schedule and performance. The LLCs provide a singled-up approach to evaluate and capture critical lessons learned and barriers brought forward by Project Teams to facilitate process improvements in the Surface Navy.

c. The LLC process encompasses the established milestones and/or meetings within the planning and execution of availabilities in accordance with Volume II, Part II, Chapter 2 of this manual. Appendix D of Volume II, Part II, Chapter 2 of this manual includes a detailed table of milestones. Meetings that already exist to reinforce process improvements may include the Advance Planning Meeting, Work Package Integration Conference, Work Package Execution Review, Arrival Conference, 50% Conference and Completion Conference. While these events occur at various times, the feedback process exists to continually collect information to improve processes.

39.2 MAINTENANCE AND MODERNIZATION PERFORMANCE REVIEW OVERVIEW.

39.2.1 MMPR Objective. The MMPR topics will be relevant to process improvements for future availabilities and may include ship class or port specific process issues, best practices, success stories, industry feedback, technical issues, Surface Team One (ST1) initiatives and new developments and Fiscal Year Availabilities.

39.2.2 MMPR Key Membership.

a. Commander, Naval Surface Forces Atlantic N43 is the Process Master and responsible for managing and coordinating the MMPR.

b. Nearly all commands linked to the Surface Ship Maintenance and Modernization Community participate in the MMPR. These commands include Commander, Navy Regional Maintenance Center, RMCs, Naval Sea Systems Command (NAVSEA) 21, Type Commanders (TYCOM), Surface Maintenance Engineering Planning Program (SURFMEPP), Planning Yards, Private Sector Industrial Activity Contracting Partners, Ship's Force (Commanding Officers through Department Heads), Fleet, SEA04, SEA05, Space and Naval Warfare Systems Command, Program Executive Officer Integrated Work Schedule and Office of the Chief of Naval Operations N43. At a minimum, the following organizations will be invited to attend all MMPRs:

(1) Commander, Navy Regional Maintenance Center.

(2) RMCs Southeast Regional Maintenance Center (SERMC), Southwest Regional Maintenance Center (SWRMC), Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF), Northwest Regional Maintenance Center (NWRMC), Pearl Harbor Naval Shipyard

and Intermediate Maintenance Facility (PHNSY & IMF), Hawaii Regional Maintenance Center (HRMC), Mid-Atlantic Regional Maintenance Center (MARMC), Forward Deployed Regional Maintenance Center (FDRMC), Ship Repair Facility (SRF)-Japan).

(3) Commander, Naval Surface Forces Atlantic.

(4) Commander, Naval Surface Forces Pacific.

(5) NAVSEA21.

(6) SURFMEPP.

(7) Ship's Force.

(8) United States Fleet Forces Command.

(9) Commander, U.S. Pacific Fleet.

(10) Industry Partners.

(11) Space and Naval Warfare Systems Command.

(12) Naval Surface Warfare Center (Philadelphia, Port Hueneme, Corona).

(13) NAVSEA04.

(14) NAVSEA05.

(15) Program Executive Officer Integrated Work Schedule.

c. MMPR Planning Team. The MMPR Planning Team will be chaired by the ST1 Executive Steering Committee (ESC). MMPR planning meetings will be conducted on a monthly basis preceding a scheduled MMPR. The objective of these meetings is to develop the agenda and ensure any information from ST1 priority topics is included.

39.2.3 MMPR Action Items. All action items resulting from an MMPR meeting will be tracked by ST1 and documented and tracked on the ST1 Portal with Lessons Learned Conference Action Items and/or barriers. Documents from the MMPR will be posted to the MMPR site under the ST1 Portal. Instructions on gaining access to the ST1 Portal are located in Appendix A.

39.2.4 Further Guidance. Further guidance regarding the MMPR process is outlined in the MMPR Business Rules.

39.3 LESSONS LEARNED CONFERENCE OVERVIEW.

39.3.1 Lessons Learned Conference Concept. The LLC is not a program review, an evaluation of the Maintenance Team (government or contractor) or a forum to acknowledge heroism or place blame. It is a process review, an evaluation of the execution of the availability from the advance planning to the completion of the availability. It is also a place to identify process issues that can further improve overall end to end maintenance and modernization process.

39.3.2 Lessons Learned Conference Objective. The objective of the LLC is to increase in-depth cross-Project Team discussions of common issues and to include risk mitigation strategies and best practices. Feedback will be shared locally and globally in the surface force ship community and will ultimately be embedded into the maintenance and modernization processes.

39.3.3 Lessons Learned Conference Key Membership.

a. Process Owner. Commander, Naval Surface Forces Atlantic N43 and Commander, Naval Surface Forces Pacific N43 are the overall LLC process owners. As such, Commander, Naval Surface Forces Atlantic N43 and Commander, Naval Surface Forces Pacific N43 are responsible for the general management of implementing the LLC process to ensure process effectiveness. While the TYCOMs are the LLC Process Owners, the LLCs are part of the ST1 structure as a "Knowledge Sharing Network". Each Knowledge Sharing Network under ST1 is assigned a Process Master; the LLC Process Master will be identified by the Process Owners.

b. RMC LLC Analysis Team. Each RMC must have a designated LLC Analysis Team Coordinator and a designated LLC Analysis Team Waterfront Operations Representative on the Analysis Team. Some RMCs may choose to have the Coordinator and Waterfront Operations Representative to be one and the same due to the time requirements demanded of an Analysis Team Member.

(1) The LLC Analysis Team Coordinator is responsible for the coordination and facilitation of their local RMC's scheduled LLCs. This person serves as the liaison between the Project Teams and the global LLC Community. Further guidance regarding the RMC LLC Coordinator's responsibilities are outlined in the LLC Analysis Team Business Rules.

(2) The LLC Analysis Team RMC Waterfront Operations Representative is responsible for providing the Waterfront expertise and knowledge for their local RMC to the Analysis Team. This person serves as the liaison between his or her RMC's waterfront and the global LLC Community. Further guidance for the roles and responsibilities of the local RMC LLC Analysis Team Member in completing the LLC Waterfront Perspectives Questionnaire is contained in the LLC Analysis Team Business Rules.

NOTE: WHILE THE LLC ANALYSIS TEAM MEMBER POSSESSES MANY RESPONSIBILITIES AS THE LLC MEETING FACILITATOR, HE OR SHE SHOULD EXPECT TO RECEIVE ASSISTANCE FROM ALL STAKEHOLDERS.

c. RMC Availability Project Manager (PM). The RMC PM is responsible for preparing and briefing their ship's Chief of Naval Operations Availability based on the Waterfront Perspectives Questionnaire they provided answers/comments on. The RMC PM will capture all lessons learned, action items and barriers deemed necessary to be communicated to the Surface Maintenance and Modernization Community.

d. Maintenance Community. Other maintenance activities involved with ship availabilities (in addition to those highlighted in preceding paragraphs) will participate in the LLC. These representatives are active members of the LLC Community and are responsible for maintaining awareness of availability issues and participating in the topic specific LLCs. The following participants are mandatory:

(1) TYCOM N43 Type Desk Office.

(2) TYCOM Project Engineer.

(3) Immediate Superior In Command.

(4) Ship's Force Representative.

(5) Private Sector Industrial Activity/Firm Fixed Price Contractor.

(6) SURFMEPP Detachment Representative.

e. Modernization Community. Representatives of any Alteration Installation Team or other non-repair activity involved with availabilities will participate in the availability LLC meetings as appropriate:

(1) NAVSEA 21.

(2) Field Activities.

(3) Space and Naval Warfare Systems Command.

(4) Program Manager Representative.

(5) Planning Yard Representative.

39.4 PREPARING FOR THE LESSONS LEARNED CONFERENCE.

39.4.1 Preparation. To adequately prepare for an LLC, Project Teams should review any lessons learned and barriers that they feel will be beneficial to other Project Teams throughout their Planning and Execution phases regarding the topic of the LLC. All Project Teams will be first introduced to the LLC Process during their first scheduled Integrated Project Team Development Event in accordance with the milestones listed in Volume II, Part II, Chapter 2, Appendix D of this manual by their local RMC LLC Analysis Team Coordinator/Waterfront Operations Representative.

39.4.2 Lessons Learned Conference Presentation Overview. The LLC Availability Overview Presentation serves as the format for the Project Teams to articulate key lessons learned and barriers encountered during their Availability Cycle. The LLC Waterfront Perspective Questionnaire template is available through the RMC Analysis Team Member, however it will be tailored to each LLC Topic. Throughout the planning stages and execution of the availability, Maintenance Team members, including the RMC, Ship's Force, contractor, Alteration Installation Teams and other key availability stakeholders shall assist the RMC PM in submission of the LLC presentation. Input should also be gathered from:

a. Ship's Commanding Officer's Weekly Situation Reports.

b. Standard metrics identifying top cost drivers.

c. Late add alteration risk assessment messages (including comparison of expected versus actual impact to the availability).

d. Late add alteration risk acceptance.

e. Waivers for work added after the late add impact assessment as dictated by the milestones listed in Volume II, Part II, Chapter 2, Appendix D of this manual (including impact to availability).

f. Cost variance forms provided by contractor.

g. A review of contract changes to the base work package.

39.5 CONDUCTING A LESSONS LEARNED CONFERENCE.

39.5.1 Lessons Learned Conference Schedule. LLCs are scheduled as topics are identified for inclusion in the LLC process. Required LLC Project Teams are determined based on their applicability to the selected topic.

39.5.2 Agenda. The primary focus of the meeting is to discuss lessons learned, best practices and barriers pertaining to the specific topic. An agenda for all scheduled LLCs will be forwarded to all participants by the ST1 LLC Process Master, RMC LLC Analysis Team Coordinator. The agenda will also be available on the LLC site on the ST1 Portal: https://usff.portal.navy.mil/sites/surflant/st1/default.aspx..

39.5.3 Lessons Learned Conference Focus Areas. Surface Force Ships are required to participate in LLCs to promote synergy toward the identification and resolution of common availability issues. Topics of a LLC can be identified by any member of the Surface Ship Maintenance and Modernization Team. The topic specific LLC will bring together people from around the enterprise to share lessons learned on issues that are affecting the ability of project teams to complete availabilities on time or are constant drivers of growth and new work.

39.5.4 Invitees. Key membership and project team personnel involved with the availability, including the TYCOM, will be notified of the LLC meeting by the ST1 LLC Process Master, the RMC LLC Analysis Team Coordinator or the Class Team Leader. Key stakeholders involved with future availabilities will also be invited to attend the meeting.

39.5.5 Invites and Announcement. The RMC LLC Analysis Team Coordinator will review the scheduled LLCs on no less than a monthly basis. The schedule will include an agenda of upcoming LLCs based on topic relevance. The RMC Analysis Team Coordinators will recommend and designate the specific ship Project Teams to present at upcoming LLCs.

39.5.6 Lessons Learned Conference Documents. All LLC documentation will be in accordance with the LLC Analysis Team Communications Plan. Requirements for documents will also be discussed during the weekly LLC Telecoms.

39.5.7 Lessons Learned Conference Minutes. All participants, action items and barriers will be documented in minutes (KMails), following each LLC. The KMails will be forwarded no later than five business days to all invitees, ST1 ESC and RMC Commanders. The minutes will also be posted on the LLC site on the ST1 Portal.

39.5.8 Lessons Learned Conference Website. LLC process meeting documents and information shall be posted on the LLC site on the ST1 Portal. This site tracks all scheduled LLCs throughout the calendar year, all meeting preparation materials to include necessary read-ahead material for participants, Project Team Point of Contact Lists and approved KMails. The site should be used to aid in planning work packages and preparing for availabilities to ensure that any barriers and lessons learned identified by previous LLC Project Teams are applied to future availabilities. The site is located at https://usff.portal.navy.mil/sites/surflant/st1/default/aspx. See Appendix A for instructions on obtaining access.

VOLUME VI

CHAPTER 40

SUBMARINE MESSAGE REPORTING

REFERENCES.

(a) SECNAVINST 5510.36 - Department of the Navy Information Security Program Regulation, Chapter 6
(b) NAVSEAINST 4720.14 - Temporary Alterations to Active Fleet Submarines, Control of
(c) NAVSEA SL720-AA-MAN-010 - Fleet Modernization Program Management and Operations Manual

LISTING OF APPENDICES.

A Sample (SUBS) Initial Message
B Sample (SUBS) Update Message
C Sample (SUBS) Final/Closeout Message
D Sample (SUBS) Shipalt/Tempalt Installation Message
E Sample (SUBS) Shipalt/Tempalt Removal Message

40.1 PURPOSE. This chapter provides policy and guidance regarding the utilization of (SUBS) messages. Reactor Plant and Strategic Weapons Systems material issues are not governed by this document and shall not to be reported via (SUBS) message format. (SUBS) message requirements for New Construction, Chief of Naval Operations, (CNO) and Type Commander (TYCOM) depot availabilities are addressed in Volume II, Part I, Chapters 3 and 4 of this manual and will not be addressed in this chapter. This chapter supercedes all other policy, procedures or guidance previously promulgated regarding (SUBS) messages.

40.2 BACKGROUND. Submarine material and equipment problems or requests for technical assistance reported via message have experienced delays receiving the required resolutions for identified problems. Delays were associated with insufficient data and or improper message addressing.

40.3 SCOPE. To establish protocol for the reporting of submarine equipment, systems and material issues that affect ship's mission or ship/personnel safety. To establish a reporting procedure that will ensure all necessary commands and technical authorities are contacted without delay. To ensure the correct action is identified and provided to the ship using the most rapid means.

40.4 POLICY.

a. The parenthetical code word (SUBS) shall appear as the first word in the subject line before the subject description.

b. (SUBS) messages shall identify its status by using the words INITIAL, UPDATE or FINAL at the end of the subject line.

c. The (SUBS) message shall not be used as a substitute for any Casualty Report, Situation Report or Incident Report that may be required by higher authority. A (SUBS) message shall be sent to provide further supplemental information needed to explain the problem, provide troubleshooting support and identify its effect on the ship.

d. (SUBS) messages are intended for material and technical assistance request issues pertaining to ship's mission or personnel safety and should not be used to report routine administrative items such as visit requests, post tech assist visit reports or any other event not requiring the urgency of a (SUBS) message.

e. (SUBS) messages originated by submarines will be updated by the submarine at a periodicity not greater than once every 30 days. UPDATES should include equipment status, repair efforts in progress and if known anticipated repair date.

f. To identify (SUBS) message priority use the following precedence:

(1) ROUTINE - REQUEST ANSWER WITHIN 5 WORKING DAYS.

(2) PRIORITY - REQUEST ANSWER WITHIN 3 WORKING DAYS.

(3) IMMEDIATE - REQUEST ANSWER WITHIN 24 HOURS.

g. (SUBS) messages shall be used to identify the installation and removal of Temporary Alterations (TEMPALT) and Ship Alterations (SHIPALT). However the 30-day UPDATE requirement and precedence identification is waived for these instances.

h. (SUBS) messages identifying the installation or removal of a TEMPALT or SHIPALT will identify such message by placing the words (TEMPALT) or (SHIPALT) at the end of the subject line.

i. (SUBS) messages are to be classified appropriately in accordance with reference (a).

j. (SUBS) messages shall be addressed to the controlling Immediate Superior In Command (ISIC) for action and INFO Naval Sea Systems Command (NAVSEA), NAVSEA 08, TYCOMs and Technical Authority as appropriate ensuring parent commands are included as addressees.

k. A FINAL close out (SUBS) message shall be sent upon correction of the reported material problem or if in the Commanding Officer's judgement a technical resolution has been reached or no additional response is required from Technical Authorities, NAVSEA, TYCOM or ISIC.

l. NAVSEA shall review all (SUBS) messages and provide responses to the ISIC within the precedence time line as identified in paragraph 40.4 f. of this chapter.

m. (SUBS) messages initiated by NAVSEA requesting information from one or more Commands shall be tracked by NAVSEA.

n. (SUBS) messages being initiated for the purpose of gathering technical information from submarines shall be provided to the TYCOM for action.

o. Technical Authorities shall provide all (SUBS) message responses to NAVSEA, TYCOM and ISIC for review and action.

p. (SUBS) messages shall not be initiated by a Technical Authority unless authorized by NAVSEA, TYCOM or ISIC.

40.5 RESPONSIBILITIES.

40.5.1 Type Commanders.

a. Review (SUBS) message traffic and when necessary readdress or forward to ensure the proper Technical Authority was identified and aware of the message.

b. Assist and support the ISIC as required to generate (SUBS) messages.

c. (SUBS) messages initiated by the TYCOM, requesting information from one or more Commands are to be tracked by the TYCOM department generating the message.

d. Track all (SUBS) messages generated by submarines under its cognizance.

40.5.2 Immediate Superior In Command.

a. Review and take for action all (SUBS) messages coordinating with NAVSEA, TYCOM and the Technical Authority to generate and provide message responses as required and within the precedence time line as identified in paragraph 40.4 f. of this chapter.

b. (SUBS) messages sent to or initiated by a submarine under its cognizance shall be tracked by the ISIC.

c. (SUBS) messages initiated by the ISIC requesting information from one or more commands shall be tracked by the ISIC.

40.5.3 Ship's Commanding Officer.

a. (SUBS) messages initiated by the ship shall be tracked by the ship until closeout.

b. Responses to technical assistance (SUBS) messages shall be answered as soon as the troubleshooting efforts have results. If requested troubleshooting efforts are not accomplished due to ship's operations or lack of test equipment, generate a (SUBS) message containing efforts taken, results, effect on ship and any further assistance needed.

c. When requesting onboard technical assistance, Chapter 2 of this volume, Fleet Technical Assistance, shall be used as guidance.

d. Issue a (SUBS) message to identify the installation and removal of TEMPALTs and SHIPALTs.

40.6 MESSAGE REQUIREMENTS.

a. All (SUBS) messages requesting technical assistance will contain, as a minimum, the following requirements:

(1) EXECUTIVE SUMMARY - faulted equipment, when the fault occurred, functions lost and equipment effected.

(2) BACKGROUND (if any) - previous related equipment problems, when experienced, corrective action taken, last completed system certification.

(3) DESCRIPTION OF THE PROBLEM - affected equipment, type of fault, fault indications, system indications.

(4) TROUBLESHOOTING EFFORTS - procedures used, documentation held onboard, Ship's Force training and experience with the equipment, troubleshooting limitations, special equipment held, any possible fault identified during Ship's Force troubleshooting.

(5) ASSISTANCE DESIRED - repair parts needed, distance support or onboard technical assistance needed, if known identify the technical authority and the next available ship operation where a technician could board the ship. Identify the problem as corrected, no further assistance required and justify it as a FINAL REPORT with no additional action required. When answering an information request (SUBS) message a closeout message is not required and should be identified as such in Paragraph 5 of the message. (i.e., no additional action required by this message)

(6) COMMANDING OFFICER'S ASSESSMENT - level of impact assessment of ship's capabilities to complete operational commitments, any additional backup or redundant systems and its operational status.

(7) REQUIRED RESPONSE DATE - Specify the calendar date response is due by to support ship operations.

b. All (SUBS) messages reporting TEMPALT and SHIPALT completion will contain, in accordance with references (b) and (c), the following requirements:

(1) ACTIVITIES: Unit and installing activity identified.

(2) BACKGROUND: TEMPALT number, TEMPALT name, installation period dates, installation completion date, Ship's Force operational testing completion acceptance date.

(3) PROVIDED INFORMATION:

(a) Type of installation: New equipment, Upgrade, Design change, etc.

(b) TEMPALT number: XXXX K/D.

(c) Certifying Statement: "all work was accomplished in full compliance with applicable contractual standards, specifications and installation drawings as outlined in reference ( )". System Operation Verification Testing (SOVT) was completed on XX NOV XXXX, results were provided to Ship's Force.

(d) TEMPALT installation issues resolved: Ship's Installation Drawings require revision. All Liaison Action Requests submitted to the planning yard were resolved. Ship's Force has been provided copies of all Liaison Action Requests and red line drawings. Red line drawing forwarded to planning yard.

(e) TEMPALT Completion Report completed and forwarded XX Dec XXXX, results provided to Ship's Force.

(f) Equipment installed: example AN-BLQ-10 ES SYSTEM.

(g) Integrated Logistics Support provided: Tech manuals, Maintenance Requirement Cards library data, On Board Repair Parts.

(h) Training Provided: identify by name all personnel trained.

(i) Summary: installation schedule issues, delays, support required, etc.

(j) Anticipated TEMPALT removal date.

(4) POC: Point of Contact (POC) at installing activity.

(5) COMMANDING OFFICER COMMENTS: Describe any issues of concern, provide positive and negative comments and identify any other pertinent information.

c. All (SUBS) messages reporting TEMPALT removal will contain, in accordance with reference (b), the following requirements:

(1) ACTIVITIES: Ship's name and Hull number.

(2) BACKGROUND: TEMPALT Number and Title.

(3) PROVIDED INFORMATION:

(a) Date of removal.

(b) Certifying statement the ship was restored to original configuration.

(c) Removal Issues; any outstanding item preventing restoration.

(4) POC: Removal Activity POC.

d. To ensure the appropriate Technical Agencies are informed of the material problems or request for technical assistance the addressee guidance provided for Casualty Reporting located at https://mfom.nola.navy.smil.mil/mfom (SIPR access required) should be used for (SUBS) messages.

e. Appendices A through E provide samples of the message format to be used for (SUBS) messages.

NOTE: RESPONSIBILITIES FOR EACH MEMBER HAVE BEEN BROKEN DOWN INTO TWO CATEGORIES, ACCOUNTABLE AND RESPONSIBLE.

e. Accountable: Owns the work, the person who makes the final decision on a task and has the ultimate ownership over that task.

f. Responsible: A contributor, this will be the person or people assigned to do the work.

41.2.4 Specific Duties of Maintenance Team Members.

41.2.4.1 Ashore Ship's Maintenance Manager.

a. For Aircraft Carriers, receives the Baseline Availability Work Package (BAWP) from the Carrier Planning Activity. Builds and refines the Proposed and Authorized AWPs.

b. Accountable:

(1) Leads the Maintenance Team and maintains frequent contact with the Commanding Officer and conducts personal observations of shipboard conditions. Establishes and maintains an effective communications plan with the ship during deployment. More information can be located in Volume II, Part II, Chapter 1, paragraph 1.2.2 of this manual.

(2) Maintains the CSMP shore file accuracy and provides recommended changes for the shipboard CSMP to the Ship Material Maintenance Officer and 3M Coordinator. (See Volume II, Part II, Chapter 1, paragraph 1.3.1 of this manual.)

(3) Validates all off ship maintenance for assigned ship(s), including off-ship assessments. (See Volume II, Part II, Chapter 1, paragraphs 1.3.2, 1.3.4 and 1.3.5 of this manual.)

(4) Develops initial planning estimates based on information such as return costs from similar jobs and Government prepared or approved estimates. (See Chapter 31, paragraph 31.4.2 of this volume.)

(5) Screens/schedules work candidates to the right time period and maintenance availability based on the MMBP, operational schedule, material readiness requirements and cost benefit analysis. (See Volume II, Part II, Chapter 1, paragraphs 1.4.1 and 1.4.4 of this manual.)

(6) Brokering as discussed in Volume II, Part II, Chapter 1, paragraph 1.4.2 of this manual.

(7) Schedules, and assists the ship's Commanding Officer in conducting the Planning Board for Maintenance meetings, including agenda development. (See Volume II, Part I, Chapter 4, paragraph 4.2.5 of this manual.)

(8) Coordinates all off-ship maintenance and modernization requirements.

(9) Screens Automated Work Requests in support of 100%, 80% and 50% package lock, including CSMP, Class Maintenance Plan (CMP) and TYCOM routines.

(10) Initiates work candidates (OPNAV 4790/2K) for "service" work.

(11) Develops Business Case Analysis and generates applicable Engineering Services Request, provides advice and serves as the ship's point of contact for access to technical expertise for all ship maintenance and modernization requirements, including the development of Ship Changes.

c. Responsibilities:

(1) Communicates, coordinates and tracks ship and applicable class problems.

(2) Ensures configuration change requests are promptly submitted.

(3) Ensures completion work candidates (OPNAV 4790/2K) are entered into the CSMP and the appropriate IT system. (See Chapter 2, paragraph 2.6.2 of this volume.)

(4) Executes the approved MMBP to best utilize windows of opportunity. (See Volume II, Part II, Chapter 2, paragraph 2.1.2 of this manual.)

(5) Makes recommendations to the ship's Commanding Officer and management on any deferred work items. (See Volume II, Part II, Chapter 1, paragraph 1.4.5 of this manual.)

(6) Coordinates maintenance availability scheduling and execution. (See Volume II, Part II, Chapter 2, paragraph 2.6.5 of this manual.)

(7) (Surface Force only) Supports the RMC in planning assigned ship maintenance/modernization availabilities. (See Volume VII, Chapter 1, paragraph 1.3.8 of this manual.)

(a) Develops and schedules work packages. Recommends resolutions to CNO scheduling issues.

(b) Recommends CM opportunities to the ship's Commanding Officer and the NSA management. Creates CM availabilities.

(c) Screens work candidates (OPNAV 4790/2K) to appropriate level of maintenance (Organizational, Intermediate, Depot (O, I, D)). Reviews assessment results for inclusion in work packages.

(d) Assists Project Manager with work package analysis for Private Sector Industrial Activity (PSIA) contracts.

(e) Provides availability evaluation input documentation during availabilities supporting Contractors Performance Appraisal Reporting System (CPARS).

(8) Supports Fast Cruise, Dock Trials, Sea Trials, Propulsion Plant Light Off Assessment (LOA) and Production Completion Date (PCD), Combat Systems or AEGIS Light Off and TYCOM validation of PCD.

(9) Attends Integrated Project Team Development (IPTD), Work Package Integration Conference (WPIC), Work Package Execution Review (WPER), Lessons Learned Conference (LLC) Life Cycle Planning, Docking, Arrival, 25%/50%/75% reviews, Undocking, and Departure conferences,

(10) Plans, coordinates and executes mid-deployment shipcheck.

(11) Supports Ship's Force for AWP collection and management of Objective Quality Evidence (OQE).

(12) Performs AWP risk assessments and verifies deliverables to contractor (O, I, D work items and Alteration Installation Team (AIT) schedule requirements).

(13) Assists the NSA with technical close out and availability work certification. Assists ship in achieving maintenance phase exit criteria.

(14) Supports the 100% Package Lock Letter.

(15) Validates growth and new work, assists with the Regional Calibration Center process.

(16) Supports and participates in work specification review.

(17) Provides incremental funds for ordering Long Lead Time Material (LLTM) for both repair and alteration/modification work to meet required dates.

(18) Submits change deferral request to appropriate platform planning activity.

41.2.4.2 Ship's Commanding Officer. Primary representative for the ship. Works with the Ashore Ship's Maintenance Manager on the development and prioritization of the ship's maintenance and modernization including the MMBP.

a. Accountable:

(1) Reports progress weekly to the TYCOM. Recommends urgent and compelling decisions to the TYCOM.

(2) Works with the Ashore Ship's Maintenance Manager to develop the final work package submission for the ship.

(3) Directs efforts to identify all shipboard maintenance requirements and ensures accurate and timely entry into the CSMP. Reviews, plans and monitors accomplishment of organizational level work.

(4) Initiates requests for technical assistance, including distance support.

(5) Determines the affect of material deficiencies on mission capability and releases Casualty Reports.

(6) Integrates maintenance planning in the ship's operational schedule.

(7) Ensures the ship is prepared for and ready to conduct: propulsion plant PCD/LOA, combat systems PCD, combat systems light off events.

(8) Chairs the Planning Board for Maintenance meeting.

b. Responsibilities:

(1) Verifies technical assistance final resolution satisfies ship's maintenance issue.

(2) Ensures Ship's Force assists with the management and oversight of work execution by maintenance activities and AITs.

(3) Executes shipboard DFS process.

(4) Ensures ship properly supports 25%/50%/75% reviews; Arrival, Docking, Undocking, Fast Cruise, Dock Trials, Sea Trials, Departure, and Completion key events and conferences; IPTD, WPIC, WPER events; and CSMP, DFS, BAWP Mid-Cycle reviews.

(5) Ensures Integrated Logistics Support (ILS) is provided.

(6) Assists in scheduling and execution of mid-deployment shipcheck.

(7) Collaborates in the authorization of growth/new work.

(8) Supports the Integrated Test Plan execution and work certification.

(9) Assists in achieving maintenance phase exit criteria. Ensures proper space turnover, Ship's Force AWP collection and management of OQE, and availability technical closeout.

41.2.4.3 I-Level Ship Superintendent.

a. Accountable:

(1) Manages the collection of I-Level OQE.

(2) Manages RMC/FMA work planning, scheduling, integration, and work execution. Resolves conflicts with other Executing Activities. Ship checks work candidates (2K) as applicable and provides estimates on all I-Level work candidates. Recommends cancellation of invalid work candidates, if applicable.

(3) Represents the RMC/FMA to Ship's Force for RMC/FMA production maintenance work. Coordinates the performance of I-Level work including all scheduling and availability coordination, ensuring the I-Level work package is fully accepted in accordance with milestones.

b. Responsibilities:

(1) Ensures completion of I-Level production work supporting LOA, propulsion plant PCD, AEGIS and Combat Systems Lightoff, Docking, Undocking, Fast Cruise, Dock Trials, Sea Trials, and Availability Completion.

(2) Assists ship in achieving maintenance phase exit criteria. Ensures I-Level work is complete in support of availability certification, completion, and technical close out.

(3) Attends availability production meetings; Arrival, Docking, Undocking, Departure, WPIC and WPER conferences.

(4) Coordinates work planned and performed by RMC production department. FMA repair division, submits I-Level schedule to NSA/LMA for integration, coordination of I-Level open and inspects, coordination of oversight for I-Level work (Product Verification Inspection (PVI), Procedure Evaluation (PE), Procedure Review (PR)).

(5) Provides recommendations regarding assignment of work candidates to RMC production department/FMA repair division based on the capabilities and capacities of the RMC/FMA. Works closely with the Ashore Ship's Maintenance Manager on the validation and screening of all work candidates to the I-Level.

(6) Ensures completed maintenance action (OPNAV 4790/2K) for completed work.

41.2.4.4 Project Manager.

a. Accountable:

(1) Supports the Ashore Ship's Maintenance Manager in the performance of maintenance and modernization.

(2) Accepts or rejects work candidates to scheduled availability periods and performing activities in accordance with guidance in Volume II, Part II, Chapter 1 of this manual. Integrates work candidates to form optimized work packages.

(3) Establishes the availability in the appropriate maintenance execution IT system.

(4) Ensures LLTM for Firm Fixed Price and PSIA contracts is ordered to support availabilities.

(5) Conducts Work Specifications Review with Ashore Ship's Maintenance Manager.

(6) Serves as the advanced planning manager for contracted maintenance during CNO availabilities and scheduled CMAVs conducted at contractor or Government depots. Coordinates the continuous cost estimate review process.

(7) Provides timely financial accounting information during the execution of maintenance to customers.

b. Responsibilities:

(1) Supports CSMP/DFS/BAWP mid-cycle review.

(2) Attends IPTD events, scoping conferences (see Volume VII, Chapter 2, paragraph 2.12.1 of this manual), WPIC and WPER.

(3) Assists in coordinating mid-deployment shipchecks.

(4) Provides incremental funds for ordering LLTM for both repair and alteration/modification work to meet required dates.

41.2.4.5 Ship's Material Maintenance Officer. (The Reactor Maintenance Officer fills this role for Nuclear Propulsion issues.) Coordinates Maintenance Team activities with Ship's Force personnel.

a. Accountable:

(1) Provides the Ship's Force work package to the Project Manager and executing activity. Assists in coordinating the integration of Ship's Force work for CNO and/or CMAV availabilities. Provides shipboard schedule inputs (see Volume II, Part II, Chapter 1, paragraph 1.2.2 of this manual). Interfaces with the Project Manager and the executing activity to resolve maintenance issues.

(2) Commanding Officer's principal assistant for management of ship maintenance. Prepares the ship input to the Planning Board for Maintenance agenda in support of the Ashore Ship's Maintenance Manager. Works with the Maintenance and Material Management Coordinator to maintain an accurate shipboard CSMP. Approves, validates and ensures submittal of accurate work candidates (OPNAV 4790/2K).

a. Project Manager

(1) RMC Project Manager. When a RMC is the NSA, the PM is responsible for integration, execution, and close out of the Work Package. When the NSY is the NSA the RMC PM is responsible for planning, integrating, coordinating, and executing the PSIA contracted maintenance work items, in support of the NSY Project Manager.

(2) NSY Project Manager (Superintendent). When a NSY is the NSA. Leads the PT. Manages Government production work for CNO availabilities. The Project Superintendent is the senior NSA representative and has the overall responsibility to plan, integrate and execute availabilities.

b. Contract Specialist.

c. Quality Assurance Specialist.

d. NSA Logistical Representative.

e. SEA 21 Hull, Mechanical and Electrical and AEGIS Combat Systems On-Site Logistician (where applicable).

f. Project Support Engineer.

g. Integrated Test Engineer.

h. Assessment Director.

i. Technical Matter Expert (Surface Force Ship critical work only).

j. Shipbuilding Specialist.

k. AIT On-Site Installation Coordinator.

l. AIT Manager.

m. Combat Systems Project Engineer (CSPE).

n. SEA 21 Hull Manager (Surface Ship Program Office Modernization only).

41.3.1 Specific Duties of Project Team Members.

41.3.1.1 Project Manager.

a. Accountable:

(1) Accepts and tracks all assigned maintenance work items through execution. Coordinates planning and cost estimating and design specification preparation and scheduling. Coordinates and manages shipchecks in accordance with Volume II, Part II, Chapter 2, paragraph 2.6.2.3 of this manual. Reviews specifications to ensure completeness and conformance with authorized work. Ensures all specifications for work are developed using approved technical guidelines ensuring maximum use of current NAVSEA approved Standard Items and Standard Work Item templates (Master Specification Catalogue).

(2) Analyzes feedback submissions in accordance with Chapter 39, Section 39.5 of this volume.

(3) Briefs Ship's Force on the status of all work, by work item (see Volume VII, Chapter 2, paragraph 2.8.8 of this manual).

(4) Acts as business agent with other activities on availabilities and contracts assigned that includes ensuring that TYCOM funds are utilized properly. Evaluates all Technical Analysis Reports (TAR) and supports the Contracting Officer in contract negotiations. Acts as assistant funds administrator (when designated in writing from the RMC Commanding Officer) for assigned availabilities and contracts.

(5) (For Surface Force ships) Documents delay and disruption charges and lessons learned in accordance with Chapter 31, paragraph 31.5.3 of this volume.

(6) Manages ship repair and modernization work items, job orders and contracts assigned by progressing and evaluating all work to anticipate, prevent and minimize delays, resolving all problems that affect the end cost, quality, schedule and performance of assigned availability or contract.

(7) Evaluates and acts on the reports received from other members of the availability management team. Prepares reports on current status of assigned project or contract.

(8) Maintains liaison with customers, the ships Maintenance Team, Ship's Force Representatives, and financial/accounting personnel.

(9) (RMC PM only) Maintains liaison with RMC functional departments and the contractor.

(10) Arranges and conducts the arrival conference (see Volume VII, Chapter 7, paragraph 7.7.1 of this manual), weekly progress conferences, weekly commanding officer’s brief (see Volume VII, Chapter 7, paragraphs 7.7.2, 7.8.8, 7.12.1, 7.9.4 and Volume II, Part I, Chapter 3, paragraph 3.6.3.1 of this manual), Docking conference, and the Availability Completion conference. Attends weekly management meeting and on-site meetings to provide comprehensive information to all concerned and to remain current in all aspects of the project.

(11) (RMC PM only) Arranges for RMC representation at all conferences pertaining to assigned availabilities and contracts. Coordinates the on-site work effort in observing the contractor's in process production performance and operational testing events for projects assigned to the team.

(12) Reviews all work accomplished by assigned Shipbuilding Specialists to ensure compliance with regulations, directives, instructions, and policies as well as to ensure that intended work is practical and necessary.

(13) (RMC PM only) Reviews contractors work schedules, manning curves, material ordering/receipt schedules and special tasking/equipment requirements. Evaluates contractors' proposals prior to and during contract execution. Takes corrective actions to eliminate conflicts and prevent work stoppages. Identifies and initiates action to correct, prevent, and minimize delays, resolving all problems that affect quality, schedule and contractor performance.

(14) Provides written reports (CPARS) to the Contracting Officer for award fee evaluations on CNO availabilities.

(15) Coordinates required action as a result of post overhaul/repair inspections with the NSA Technical Authority and Maintenance Team in accordance with Volume IV, Chapter 4, paragraph 4.3.2 of this manual.

(16) Maintains records for the Contracting Officer to include but not limited to the following:

(a) Maintains a Significant Event Log (see Volume VII, Chapter 7, paragraphs 7.3.2 and 7.2.4 of this manual). All significant event logs from the shipbuilding specialist.

(b) Maintains correspondence files containing copies of all correspondence to the contracts office both internal and external.

(c) Obtains work authorizations for growth and new work. Work authorizations may be in the form of naval messages, speed letters, letters, other transmittals or documents. In the case of growth work, the authorization may be verbal, a memo at a meeting or a telephone call. Verbal authorizations should be documented with a memorandum for the record.

(53) (RMC PM only) Submits I-Level schedule to contractor for integration.

(54) Ensures work is complete to support PCD, LOA, combat systems light off, propulsion plant light off, Dock Trials, Fast Cruise, Sea Trials (contractual milestone).

(55) Provides oversight of AIT management.

(56) Attends 25%, 50%, 75% reviews; Arrival, Docking, Undocking, Departure, and Completion conferences; IPTD, LLC, WPIC and WPER events.

(57) Ensures work is complete and closed out to support business close.

(58) Coordinates condition report responses.

(59) Coordinates consolidated software delivery and ILS support.

(60) Ensures work is complete supporting habitability completion.

(61) Provides oversight of (PVI, PE, PR) and LMA checkpoint execution (V, G, I).

(62) Ensures LMA coordinates with AIT, Fleet Maintenance Activity and Ship's Force to update production schedule (NSI 009-060).

(63) Ensures LMA provides Integrated Total Ship Test Plan (NSI 009-067).

(64) Requests funds for repair and modification work LLTM, orders LLTM Firm Fixed Price/PSIA.

(65) (RMC PM only) Ensures contracted maintenance is complete supporting space turnover.

(66) (RMC PM only) Performs risk assessments and verify deliverables to contractor (O, I, D work items and AIT schedule requirements).

(67) Provides funds administration for all depot level funding on assigned ship(s) as designated in writing by the RMC Commanding Officer.

b. Responsibilities:

(1) Provides supporting information for Business Case Analysis for new work.

(2) Participates in CSMP/DFS/BAWP mid-cycle reviews, coordinates mid-deployment shipchecks, and participates in scoping conference (see Volume VII, Chapter 2, paragraph 2.12.1 of this manual).

(3) Reviews and provides feedback on Engineering Service Request.

(4) Ensures LMA and I-Level collection and management of AWP OQE.

(5) Provides oversight of the Integrated Test Plan Execution.

(6) (RMC PM only) Ensures contractor coordination of open and inspects with participating activities.

(7) Progresses Cost/Schedule Status Reports.

(8) Participates in risk letter development and signed out.

(9) Assists with the authorization of growth and new work.

(10) Assists ship in achieving maintenance phase exit criteria.

41.3.1.2 Contract Specialist. The Contract Specialist who acts as the Administering Contracting Officer (ACO) and whose duties parallel the responsibilities of the Contracting Officer. Their authority is limited as specified by the level of their Defense Acquisition Workplace Improvement Act qualifications level of authority, specific limitations of their warrant and specific assignments made by the Contracting Officer. The ACO is assisted by additional warranted, Defense Acquisition Workplace Improvement Act qualified personnel, who are assigned specific responsibilities for processing contractual issues and to assist with the management and administration of a contract. The contract specialist is a contributor and this will be the person or people assigned to do the work. The contract specialist's responsibilities are listed below in sub-paragraphs a. through d.

a. Participates in negotiations. TAR, advance planning funding administration and definitization. Prepares for and participates in the award fee board/CPARS.

b. Ensures financial and contractual requirements are met for availability completion and business close.

c. Assists in developing pre business clearance, progressing Cost/Schedule Status Reports and participates in the Regional Calibration Center process.

d. Provides incremental funds for ordering LLTM for both repair and alteration/modification work to meet required dates.

41.3.1.3 Quality Assurance Specialist. Supports the administration of the Contract Administration Quality Assurance Program to evaluate the effectiveness of the Contractor's Quality Management System on work being performed both shipboard and in the contractor's/subcontractor's plant.

a. Accountable:

(1) Develops a Quality Management Plan for each CNO availability in accordance with Commander, Navy Regional Maintenance Center (CNRMC) Standard Operating Procedure (appropriate local instruction for SRF-JRMC).

(2) Reviews contract specification items to determine inspections/tests required, and PCPs for review (PR/PE/Program Quality Assurance).

(3) Verifies all critical tests and inspections associated with Level I work, Nondestructive Testing and critical welding such as P-1 piping.

(4) Reviews past contractor quality data (Quality Data Evaluation/PVI/Government and contractor generated corrective action reports) to support planned surveillance actions.

(5) Reviews submitted list of sub-contractors to be utilized to support identification of Defense Contract Management Agency notification requirements.

(6) Promulgates the Quality Assurance (QA) plan to the PT for use via the Project Manager.

(7) Participates in bid specification and work specification review with the PT supporting quality and technical requirements in accordance with invoked milestones. Provides feedback for incorporation into work specification requirements.

(8) Attends scheduled meetings, assesses contractor capabilities, monitors contract performance, provides technical support to the ACO, and participates in claims avoidance.

(9) Maintains a Significant Events Log. Provide a copy of the log to the contracting officer and PM at the completion of the availability.

(10) Completes Past Performance Information Surveys within 14 days of completing each availability and provides written reports to Contracts Department in support of Award Fee Evaluations and CPARS. Conducts Procedure Reviews for PCPs submitted by contractors.

(11) Maintains a copy of all Corrective Action Requests (CAR) generated by the Government, as well as those written by the contractor (when requested by the Government in accordance with NSI 009-04). Maintains a status of all CARs generated by the Government and updates the Project Manager.

(12) Informs Project Managers of quality problems that are, or have the potential to, affect their ship.

(13) Accomplishes Ship’s Force QA Interface training prior to each CNO availability.

(14) Assists Shipbuilding Specialist, as functional responsibilities permit, in the coverage of G-Points.

(15) If, in the course of evaluating the prime contractor, AIT non-conformities are discovered, they are to be addressed to the Project Manager. If it is determined that the non-conformity warrants the issuance of a Government CAR, and the AIT manager/On-Site Installation Coordinator does not issue the CAR to the AIT, the RMC QA department shall notify NAVSEA 04XQ detailing the Government sponsor information.

(3) 1 day duration

(4) Focus: Regroup, Refocus & Realign

	IPTD Target Event Dates					
	A-360	A-270	A-195	A-120	A-30	Mid-Avail
RMC: Project Manager (PM)	✓	✓	✓	✓	✓	✓
TYCOM: Port Engineer (PE)	✓	✓	✓	✓	✓	✓
PSIA: Project Manager (PM)	✓	✓	✓	✓	✓	✓
*Ship's Force: CO, XO			✓	✓	✓	✓
*Ship's Force: Availability Coordinator			✓	✓	✓	✓
SEA21: Program Manager Rep (PMR)		✓	✓	✓	✓	✓
SEA21: SURFMEPP Det Rep		✓	✓	✓	✓	✓
TYCOM: Type Desk Officer/ Assistant (TDO/TDA), Avail Work Package (AWP) Manager		✓	✓	✓	✓	✓
**RMC: ShipBuilding Specialist, Contracts Specialist, TSRA Rep, Engineering, QA		✓	✓	✓	✓	✓
**PSIA: Integration Manager, QA		✓	✓	✓	✓	✓
*Ship's Force: Department Heads				✓	✓	✓
Various: Alteration Installation Team (AIT)				✓	✓	✓
PSIA: Shop Leads					✓	✓

Figure 41-1 IPTD Target Event Dates

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VOLUME VI

CHAPTER 42

MATERIAL READINESS ASSESSMENT

REFERENCES.

(a) NAVSEA S9081-AB-GIB-010 - Reliability Centered Maintenance Handbook
(b) CSL/CSPINST 9010.5 - Total Ship Readiness Assessment (TSRA)
(c) CNRMCINST 4790.2 - Submarine Regional Maintenance Center (RMC) Fleet Technical Support (FTS) Roles and Responsibilities
(d) OPNAVINST 4700.7 - Maintenance Policy for U.S. Naval Ships
(e) COMNAVSURFPACINST 4700.1A/COMNAVSURFLANTINST 4700.1/CNRMCINST 4700.7 - Total Ship Readiness Assessment (TSRA)

LISTING OF APPENDICES.

A Assessment Process
B "Prerequisites and Test Requirements" Message (Example)
C "Readiness to Commence" Message (Example)
D "Completion Quicklook" Message (Example)
E Job Originator Identification Table

42.1 PURPOSE. To maintain units in a material condition that supports the required degree of operational readiness and the ability to accomplish assigned missions using a process designed to assess the right things at the right time with the right people using the right standards at the right cost. This process applies to all activities (e.g., Type Commanders (TYCOM), Regional Maintenance Centers (RMC), shipyards, System Commands, etc.) executing periodic material assessments (scheduled event) and focused system assessments (not a scheduled event) of key systems, equipment and programs that follow an established framework and methodology. When evaluating material condition, either partially or in its entirety, the material assessment Common Assessment Procedures or approved technical documentation, shall be used and the results properly documented in accordance with this chapter via Automated Work Notifications (2-Kilo) to include material assessment tasks, (e.g., Condition-Directed Maintenance Tasks from the Class Maintenance Plan) and any discrepancies. The desired outcome of the assessment process is identification and documentation of required work to maintain adequate material condition. Appendix A provides an outline of the Assessment Process. In addition, this process applies and shall be followed for the material evaluation piece of inspections, certifications, and visits (e.g., Board of Inspection and Survey (INSURV), Afloat Training Group, Safety Center, etc.) as defined below:

a. Assessment: A material assessment is part of the ship's Reliability Centered Maintenance (RCM) plan conducted by Unit personnel or by an external agent (e.g., Command, Control, Communications, Computers and Combat Systems Readiness Assessment (C5RA)/Total Ship Readiness Assessment (TSRA)). Depending on the context, material assessments may be individual "tasks" or "events" that group together numerous individual material assessment tasks for accomplishment during a period of time in the ship's operational schedule. Discrepancy documentation will be in accordance with this chapter.

b. Certification: A certification is regulatory and is required at some periodicity to authorize operation of equipment or systems (e.g., Flight Deck Certification/Aircraft Launch and Recovery/Magazine Certification). Often, continued certification requires that some material assessments be accomplished or have been accomplished prior to certification. Results of a certification and their distribution will be in accordance with the associated certification's instruction.

c. Inspection: An inspection is an evaluation conducted by an internal or external activity with regards to the performance of equipment, systems, programs or functions to a recognized standard (e.g., Diesel/Boiler/INSURV/3-M). Depending on the evaluation plan, this may involve judging the material condition of equipment or systems. Results of an inspection and their distribution will be in accordance with the associated inspection's instruction. Generally, results of the inspection will be provided to the unit's superior and/or higher authority.

d. Visit: A visit is the response to a request to provide technical assistance (e.g., NAVSAFECEN Visit). The technical assistance visit may or may not involve performing a material assessment. Required reports and their distribution from visits will be in accordance with the technical representative's organization's standard operating procedures.

e. Reliability Centered Maintenance: A methodology to develop or revise a maintenance approach with the objective of maintaining the inherent reliability of the system or equipment, recognizing that changes in inherent reliability may be achieved only through design changes.

f. Common Assessment Procedures: Common assessment procedures are assessments that, to the maximum extent possible, are common across platforms and serve all users for assessments, inspections and certifications. Common assessment procedures are RCM applicable and effective maintenance procedures that can be properly and consistently executed. They deliver accurate assessment and measurement of, determine and document discrepancies to, and specify repairs required to restore satisfactory material condition. Common assessment procedures satisfy the needs of work definition, inspections and certifications in a common document used both across ship classes and by all activities. The two types of commonality invoked are common across functional use and common across platforms with similar systems and equipment.

42.2 APPLICABILITY. This policy applies to all material condition assessments conducted on surface force ships, submarines, aircraft carriers, service craft and afloat/ashore activities under the cognizance of United States Fleet Forces Command and Commander, Pacific Fleet (e.g., Pre-Availability Testing, Point of Entry Testing, Common Assessment Procedures, TSRA, C5RA, Boiler Inspection, Diesel Inspection, etc.). This policy does not apply to the following special categories:

a. Reactor and Primary support systems under Naval Sea Systems Command 08 cognizance.

b. Fleet Ballistic Missile systems under the cognizance of Director, Strategic Systems Program.

c. Naval aircraft and avionics equipment.

d. Post repair testing (e.g., hydrostatic test, Non-Destructive Testing, etc.).

e. Operational examinations (e.g., Tactical Readiness Examination, Pre-Overseas Movement certification, etc.).

42.3 OBJECTIVES. The principal objectives are:

a. Identify and document system/equipment deficiencies.

b. Improve unit's material readiness at the equipment/systems level.

c. Identify and define work for upcoming maintenance availabilities.

d. Standardize how the fleet conducts material assessments.

(1) Certifications, inspections and visits tasks shall use common assessment procedure standards and criteria in judging material condition.

(2) Assessments use standardized detailed procedures to determine material condition.

e. Identify material assessment training deficiencies and document any deficiencies using a Work Notification (2-Kilo). Conduct over-the-shoulder training for unit personnel.

f. Identify deficiencies with the Class Maintenance Plan (CMP) and document deficiencies using a Work Notification (2-Kilo).

g. Identify deficiencies with configuration or configuration data using Maintenance Figure Of Merit (MFOM)/Mission Readiness Assessment System.

42.4 PRINCIPLES. The critical success factors for a single integrated, effective material assessment process are:

a. Assessment procedures produced using a common assessment procedure development process based on RCM principles as discussed in reference (a).

b. Assessment procedures standardized to the maximum extent possible and identified in the CMP.

c. A standardized assessment tool set used to plan, execute and report assessments.

d. Assessment results recorded in a common shared data warehouse.

e. Accomplished using a common material assessment process, as defined below.

f. Assessment process has an effective method of feedback for periodic reviews and analysis for improvements.

42.5 MATERIAL ASSESSMENT PROCESS.

42.5.1 Discussion. The primary focus of the material assessment process is to coordinate and integrate the various Navy material assessment processes into a single, integrated, effective process designed to evaluate, measure and report individual unit's material condition. This information will be used to improve fleet readiness, ship design, maintenance and modernization identification, as well as the self-assessment capabilities of fleet units. Activities performing assessments are encouraged to communicate with each other to avoid duplicate work. Additionally, the assessment process will provide data to help determine a unit's ability to reach its expected hull life, measure the effectiveness of the CMP and identify potential crew training deficiencies.

42.5.2 Material Assessments. Units will undergo assessments per the CMP and as scheduled by the TYCOM. Systems and equipment are selected for assessment based upon:

a. The CMPs.

b. Ship Class trends.

c. Unit requests.

d. Review of the Current Ship's Maintenance Project (CSMP).

e. Maintenance Team inputs.

f. Integrated Condition Assessment Systems (ICAS)

g. Integrated Performance Assessment Reports

h. Corrosion Control Information Management Systems

i. Master Assessment Index

42.5.2.1 Submarine TSRA Material Assessments. Reference (b) is applicable to TYCOM managed activities with responsibility to perform submarine material and maintainability readiness assessments. Reference (c) is applicable to Commander, Navy RMC managed activities with responsibility to perform submarine material and maintainability readiness assessments.

42.5.2.2 Surface Force TSRA Material Assessments. TSRA visits are nominally two weeks in duration. However, at the discretion of the TYCOM, TSRA events may be scheduled for more or less than two weeks in order to avoid conflicting with operational schedules. When the TSRA event is scheduled for less than two weeks, the focus of the TSRA will be identification and documentation of systems deficiencies.

42.5.3 Assessment Authorizing. The Platform Program Manager develops the CMP requirements as outlined in reference (d), and provides the requirements to the Platform TYCOM, who develop the assessment work packages and initiate assessments via “go assess work notifications” (GA2-K). Many factors determine what items will be selected for assessment, including the level of risk, funding constraints, ship's availability and ongoing maintenance and modernization. RMCs are tasked by Commander, Naval Sea Systems Command to support surface ships under the cognizance of Commander, Naval Surface Force Atlantic and Commander, Naval Surface Force Pacific to plan and execute TSRAs.

a. The CMP contains two types of assessment notifications that may influence the agenda:

(1) Scheduled assessments.

(2) Unscheduled "As needed" or "pulled assessments" ("Go Assess" maintenance notification). The Go Assess maintenance notification (GA2-K) identifies the equipment and the associated assessment procedure which shall be used.

b. Individual material assessments (not more than five assessment procedures) may be scheduled outside of a scheduled assessment event or availability if they can be planned and coordinated on a not to interfere basis with the unit's combined schedule (operational and maintenance). A larger number of assessments or assessment events require additional planning, integrated scheduling and project management (e.g., C5RA, TSRA, Carrier Material Assessment Team, etc.). In this case, a maintenance availability should be used or added to the ship's schedule. These assessment notifications are screened and brokered to the appropriate executing activity.

c. All material assessments are scheduled in accordance with the CMP and should not be repeated or duplicated by multiple activities. Assessment results shall be shared and used by multiple activities.

d. Surface Force TSRAs will include comprehensive assessments of ship's Hull, Mechanical and Electrical, combat systems, Command, Control, Communications, Computers and Intelligence systems, support equipment and logistics condition per reference (e). TSRAs are tailored material assessment packages scheduled to occur at specific times during a ship's schedule to improve maintenance availability planning, CSMP management, equipment repair, Ship's Force technician proficiency and operational availability. The Master Assessment Index process is used by Surface TYCOM as a risk prioritization model to assist in the development of the TSRA agenda.

42.5.4 Assessment Planning. For scheduled material assessments or events, the Executing Activity identifies a Team Leader and develops the execution plan. The plan contains all of the necessary information required to complete the assigned tasks and should be integrated with the unit's schedule. Conduct assessments using the applicable pieces of the standard assessment tool set. To facilitate planning and scheduling and avoid redundancy, assessments may be consolidated into a material inspection. Deficiencies identified during other major ship inspections and assessments such as C5RAs shall be incorporated into the final INSURV inspection report if the assessment was conducted within 60 days of the scheduled material inspection or as negotiated between INSURV and the TYCOM. Although deficiencies generated during the assessment will become part of the final INSURV report, these deficiencies will be annotated as "corrected", where applicable. The TYCOM will document this linked event by message request to INSURV, cognizant RMCs and the affected unit nominally four months prior to the scheduled material inspection. INSURV will evaluate the request and determine the scope and applicability of the linkage.

42.5.5 Assessment Execution.

a. Work with the unit's personnel to assess, analyze and document the material condition in accordance with standard procedures. Maintain good communications with all levels of unit personnel. Train unit personnel in assessment procedures and techniques.

b. The assessment includes validation of equipment configuration, evaluation of the maintenance periodicity and effectiveness, evaluation of the assessment periodicity.

c. Documentation of assessment results by the equipment Subject Matter Expert (SME) will include all required data. A maintenance ready work notification (2-Kilo) that is sufficiently defined, contains correct and complete information, provides an accurate diagnosis, and provides an applicable, effective and feasible recommended resolution. A properly validated maintenance ready work notification (2-Kilo) should allow the planning and executing activities the ability to understand the requirement and not to expend additional manpower or time obtaining needed information for any deferred maintenance, and completion of the assessment maintenance notification. All Unclassified Non-Nuclear Naval Propulsion Information/Naval Nuclear Propulsion Information assessment results and data will be handled in accordance with current regulations and standing guidance from NAVSEA 08.

d. During Surface Force TYCOM TSRA assessments, repairs will be accomplished based on priority, availability of parts, Ship's Force support, SME availability or time remaining in the TSRA.

e. Conduct assessments using the Automated Work Notification software contained in Afloat Toolbox for Maintenance. This software is located in the MFOM Suite. All collected data is stored in the MFOM data warehouse.

f. Certifications, inspections and visits shall document material deficiencies on an Automated Work Notification (2-Kilo) that at a minimum identifies the configuration item and adequately describes the symptoms and/or conditions that are below standards. For example, the 2-Kilo may identify that a specific component does not function properly and requests assistance to troubleshoot/diagnose system discrepancy. If the deficiency is clearly understood, the assessor is required to record what they know or understand the deficiency to be.

42.5.6 Assessment Reporting.

a. The Executing Activity conducting the assessment should analyze assessment results and notify the Commanding Officer or his designated representative of any findings that could result in a Casualty Report, underway limiting or Repair Before Operate condition. The System Command (NAVSEA 05, SPAWAR 05 or NAVAIR) shall identify material improvement recommendations for new construction, future alterations or further analysis by the technical community.

b. For Surface Force Ships, RMC shall send a Prerequisite and Test Requirements message per reference (e) at least three weeks prior to the start of the event.

c. For Surface Force Ships, the ship shall send a Readiness to Commence message per reference (e) no later than five days prior to the scheduled event.

d. Report assessment results using the standard assessment tool set:

(1) To include whether an assigned assessment procedure was completed, partially completed or not accomplished.

(2) To produce a maintenance ready work notifications (2-Kilo) for each discrepancy identified during the assessment. Determine with unit personnel their repair capability/capacity when recommending level of effort, (i.e., Organizational, Intermediate or Depot repair).

e. To identify Integrated Logistic Support deficiencies and pass to TYCOM/Global Navy Distant Support to research and resolve, reporting any configuration discrepancies.

f. To provide any procedure discrepancies, validation and periodicity feedback.

g. To document man hours and costs.

h. For Surface Force Ships, RMC shall send a TSRA Completion message per reference (e) no later than five business days after TSRA completion.

42.5.7 Standard Assessment Tool Kit.

a. The standard assessment tool kit consists of:

(1) The catalog of approved assessments outlined in the ship's CMP. The procedure should be written in a format appropriate to the activity and experience of the personnel assessing (i.e., Maintenance Requirement Card for Unit personnel, Task Group Instruction for Naval shipyards, standard item for private shipyards, etc.).

(2) If an equipment or system assessment does not exist, one must be developed in accordance with the assessment technical guide and identified in the CMP.

(3) All assessments shall be planned, executed and reported using the Fleet approved assessment computer application(s) and the results recorded in the Fleet designated data warehouse.

42.5.8 Assessment Personnel.

a. When assessments are conducted by the unit's personnel, they should be from a rating associated with the equipment being assessed (operationally knowledgeable) and should be experienced in conducting assessments.

b. Outside activity personnel should be technically knowledgeable in the area they will be assessing and considered SMEs. Additionally, they should be trained on the assessment process, how to document the material condition of the equipment or system and basic RCM principles as discussed in reference (a).

42.6 RESPONSIBILITIES.

42.6.1 Fleet Commander. Fleet Commander shall:

a. Maintain a common material assessment process and policy. Conduct periodic reviews of processes and procedures as recommended by TYCOMs and technical warrant holders.

b. Be the Fleet's advocate and single point of contact for all material assessment issues to include:

(1) Policy.

(2) Training, assessment criteria.

(3) Procedures.

c. Provide and support a standard material assessment tool set.

d. Review the personnel and monetary resources required for the operation, improvement and support of the material assessment process and provide for these requirements in the budget effort.

e. Establish minimum standards of continuous program improvements for the TYCOMs.

42.6.2 Type Commander. TYCOMs/Immediate Superior In Command shall:

a. Schedule and authorize material assessments.

b. Define the scope of material assessment.

c. Provide funding for execution and support when not part of the mission funded executing activities Capabilities Plan.

d. Conduct periodic reviews of the material assessment process.

e. Establish standards of effectiveness to ensure continuous program improvement.

f. Evaluate units ability to self assess and report training deficiencies to the appropriate activity.

42.6.3 Material Assessment Executing Activity. The Material Assessment Executing Activity shall:

a. For RMC managed assessments, the RMC will send a Prerequisites and Test Requirements Message as directed by the TYCOM. Appendix B provides a sample message template. When requesting SMEs from another RMC for Assessment Events (TSRA, C5RA), the requesting RMC will fund travel and per diem expenses for government and military SMEs. For Surface Force Ships, use reference (e) sample message template and supplemental guidance for all TSRA events.

b. Conduct unit pre-visit brief in order to affect maximum support for the visit.

c. Assist the Assessment Team with access to the base and unit.

d. Review documented system deficiencies. Determine system material condition using established test procedures and unit's input. Unit personnel shall be included in this process as a training effort.

e. Task the Team Leader to provide daily progress reviews to unit assessment event coordinator.

f. Determine, in concert with Unit personnel, the correct maintenance level (Operational, Intermediate, Depot) to correct deficiencies.

g. Document man hours expended and assessment results using the standard assessment tool set and record the results of the "Go Assess" maintenance notification (GA2-K).

h. Document assessment deficiencies via maintenance notification. Document follow-on repair or technical assist 2-Kilos by always starting the Block 35 narrative with the words "Per Job Control Number (JCN)", where '(JCN)' is the Assessment JCN that generated the repair or technical assist 2-Kilo followed by the characters "XX" (e.g., "Per YYYYYEM01ZA56XX", where "YYYYY" is the ship's Unit Identification Code and "XX" signifies a break between the JCN and the beginning of the 2-Kilo's text description). This methodology allows maintenance personnel to connect each follow-on repair or technical assist 2-Kilo to its initiating assessment.

i. Establish configuration baseline (sight validation) of selected systems to upgrade logistics support documentation. Initiate configuration changes for direct input into the ship's maintenance management system.

j. Assist unit personnel in repair and groom, as required, and as dictated by time/resource constraints and operational necessity.

k. Assist unit personnel in identifying material requirements to effect repairs.

l. Provide an out brief to the unit's Commanding Officer (or his representative), describing significant findings. Additionally, ensure all maintenance work notifications are loaded into the unit's CSMP and shore files complete and intact.

m. For Surface Force Ships, RMC shall send a TSRA Completion message per reference (e) no later than five business days after TSRA completion.

n. Support assessments as requested by the TYCOM.

o. Initiate change recommendations for program improvement.

p. Ensure all assigned personnel are experienced, knowledgeable and qualified as required.

42.6.4 Commanding Officer. Commanding Officers, as directed by the TYCOM, for scheduled assessments should:

a. Prepare for assessments events in accordance with this instruction.

b. Designate a senior management representative as the unit's assessment event coordinator.

c. Send, as directed by the TYCOM, a Readiness to Commence assessment message no later than five working days prior to the scheduled start of the assessment event. Appendix C provides a sample message template. Reference (e) provides a sample message template for all TSRA events. Include contact information for the ship's coordinator and key unit personnel.

d. Provide support for assessment team (e.g., ICAS data, access to specific spaces, electrical power and cooling water requirements, man aloft equipment tag-out and Radio Frequency radiation requirements, a secure space, Shipboard Nontactical Automated Data Processing Program/Legacy Organizational Maintenance Management System – Next Generation, Internet access and e-mail accounts).

e. Prepare systems/equipment, tag outs, Work Authorization Form, request support services and generate Quality Assurance packages as required.

f. Ensure there are no conflicting evolutions, training, drills, field days, major system overhauls or other events that would detract from the timely and efficient completion of the assessment event that have been planned or scheduled.

g. Reschedule the preventive maintenance requirements that will be accomplished during the assessment event to eliminate redundant accomplishment if the assessment is scheduled to occur so that no greater than one-half (1/2) of the scheduled periodicity is exceeded.

h. Host assessment event briefings.

i. Ensure the 3-M Coordinator, Functional Area Supervisors and the Supply Officer (or representative) are available as needed during the Assessment.

j. Ensure divisional personnel are assigned to work closely with the Assessment Team SMEs during testing and repair to maximize On the Job Training and awareness of identified equipment problems.

k. Remove key maintenance personnel from the watch bill during normal working hours in order to improve efficiency of the assessment event.

l. Correct material discrepancies as time permits.

m. Send, as directed by the TYCOM, a Quicklook completion message within five working days following the completion of the assessment event. Appendix D provides a sample message template. Additionally, include in the Quicklook report feedback and recommendations to the TYCOM to support continuous improvement of the assessment event process.

NOTE: INDIVIDUAL MAINTENANCE ASSESSMENTS (NOT MORE THAN FIVE ASSESSMENT PROCEDURES) MAY BE SCHEDULED OUTSIDE OF A SCHEDULED ASSESSMENT EVENT OR AVAILABILITY. HOWEVER, THEY STILL NEED TO BE COORDINATED WITH THE SHIP'S SCHEDULE AND SHOULD NOT INTERFERE WITH OPERATIONAL REQUIREMENTS.