



DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGIONAL MAINTENANCE CENTER
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CNRMCIINST 4790.3
Code 300
27 Feb 12

Commander, Navy Regional Maintenance Center Instruction 4790.3

From: Commander, Navy Regional Maintenance Center

Subj: SURFACE SHIP MAINTENANCE ASSIST TEAMS

Ref: (a) NAVSEAINST 4790.8/OPNAVINST 4790.4 - SHIP'S
MAINTENANCE AND MATERIEL MANANGEMENT (3-M) MANUAL

Encl: (1) Sample Deck Maintenance Assist Team (DMAT) Memorandum
of Agreement
(2) Sample DMAT Visit Departure Report

1. Purpose. To define requirements and guidance for implementation of Surface Ship Maintenance Assist Teams (MAT) in the Regional Maintenance Centers (RMC) and Intermediate Maintenance Facilities (IMF). NOTE: The IMFs, located in Pearl Harbor, HI (HRMC) and Everett, WA (NWRMC), are currently undermanned and limited in MAT capability and capacity. Stand-up of MATs at these facilities will coincide with arrival of personnel. In the interim, efforts will be made to support critical needs with available RMC resources.

2. Background. The MAT concept was designed to bring RMC assessment, repair and training capability and capacity to bear on shipboard systems to:

a. Establish a "Find, Fix and Train" support effort at the shipboard level by employing RMC expertise in critical systems.

b. Work with S/F to self-assess the materiel condition of critical systems and equipment under the purview of each MAT.

c. Review with S/F maintenance documentation for completeness and accuracy, including preventive maintenance schedules and software, CSMP entries, materiel history, technical manuals, weight test data, etc. required to support readiness of these systems.

27 Feb 12

d. Work with S/F to accomplish all System PMS MRCs.

e. Repair all deficiencies noted during the system evaluation and PMS phase unless there are long lead time materials or the required level of repair effort is evaluated as depot level.

f. Provide system operator training for S/F personnel.

3. Action

a. Each RMC will establish the following MATs: Auxiliaries (AMAT), Deck (DMAT), and Valve (VMAT). Future additional MATs will target, Corrosion Control (CCMAT), Gas Turbines (GTMAT), Electric Motor-controllers & Circuit Breakers (ELMAT), Water-tight Doors & Fittings (WTDMAT), Laundry & Galley Equipment (LGMAT), and Gunnery (GMAT) systems. Additional MATs may be developed as needs and capabilities dictate.

b. Each RMC will develop local guidance for each MAT that outlines the provisions of this instruction and provides standard operating procedures that ensure the effectiveness of this program by emphasizing:

(1) Continuous involvement of Ship's Force with the MAT to maximize the training value of the MAT visit.

(2) Targeting of systems and equipment likely to be degraded. Local RMC instructions will specify systems to be addressed by each MAT. These systems should be those that previous experience or other assessments (INSURV, TSRA, etc.) have shown to be troubled systems.

(3) Avoidance of complex or burdensome practices. Practices such as requiring procedures or documentation not typically available on ships or requiring individual 2Ks for each repair action will degrade the effectiveness of the MAT.

(4) The RMC Production Officer will coordinate, attend and lead a formal in-brief onboard the ship with the Commanding Officer and/or designated representatives. In addition to S/F and the MAT lead, the ISIC, TYCOM, and the Port Engineer will be invited and encouraged to attend.

27 Feb 12

c. Each MAT will be comprised of 5-12 RMC Subject Matter Experts (SMEs) and craftsmen, combined with S/F operators and maintainers. The teams include rated Petty Officers (applicable to the targeted systems), with Chief Petty Officers as Team Leads. MATs will provide training to S/F personnel on equipment materiel readiness, and corrective and preventive maintenance, while working alongside S/F to accomplish specific equipment PMS on the targeted systems.

d. The conduct of all MAT visits will be governed by a Memorandum of Agreement (MOA) (enclosure 1) between the RMC Production Officer and the ship's Commanding Officer. The MOA will specify RMC and Ship responsibilities, the assist visit schedule, and required reports. The MOA will be reviewed during the MAT In-Brief.

e. Where MAT assessments accomplish Integrated Class Maintenance Plan tasks, completion of these ICMP tasks shall be specifically documented in the ship's CSMP.

4. Scheduling. One to two week MAT visits will be scheduled by the Type Commander (TYCOM). The MAT visits will commence with an in-brief conducted by the RMC Production Officer.

a. MAT Requests. Surface Ships shall submit their requests for MAT visits through the cognizant Squadron Commander/Immediate Superior in Command (ISIC) for approval by the TYCOM.

(1) Ships should request MAT visits when it is expected that the systems and cognizant shipboard personnel will be able to fully support the visit. Coordinating periodic material assessments (ie. TSRA, ICMP tasks) with MAT visits may be beneficial.

5. Responsibilities. The purpose of the Memorandum of Agreement (MOA) is to establish the mutual framework governing the relationships and responsibilities between the RMC MAT and S/F. The following paragraphs identify responsibilities between the MAT and Ship's Force personnel:

a. MAT (Shop to Ship, Find-Fix-Train)

(1) Assist S/F with a comprehensive review of materiel condition by identifying, documenting, and correcting materiel discrepancies on the targeted systems.

27 Feb 12

(2) Train S/F personnel on how to properly perform corrective and preventive maintenance on the targeted critical equipment/systems.

(3) Provide a schedule of events for each day of the visit.

(4) Provide the necessary material support for all preventive and corrective maintenance with the exception of hazardous material (HAZMAT), i.e. greases, oils, and solvents.

b. Ship's Maintenance Team. The ship's Maintenance Team will review 2-Kilos generated by Ships Force to keep aware of MAT initiatives and to ensure Block 35 is correct for the specified MAT time period and then screen/broker the 2-kilos to the cognizant RMC. Enclosure (1) provides MAT sample Block 35 entries.

c. Ship's Force

(1) Obtain an authorized material lay-down area for use by the MATs.

(2) Be responsible for all tag-outs, and operational permission that may apply in accordance with PMS and Command/Base Instructions, or standing orders.

(3) Provide all required Hazardous Material (HAZMAT) in accordance with approved PMS cards and applicable NavShips Technical Manuals (NSTMs).

(4) Participate with E-5 and above personnel in the rates specified within the MOA during completion of all maintenance actions and repairs.

6. MAT Reporting. A Departure Report (enclosure 2) from the RMC Production Officer will be sent to the ship's Commanding Officer. Additionally, the report will be posted on the CNRMC SharePoint website as read-only and an automated email will be sent to the ship's port engineer, and the Type Commander, informing them the report documenting what was accomplished during the MAT visit has been posted. The Report will include:

a. Materiel condition of the systems and equipment maintenance and trained on.

b. Discrepancies noted and actions taken.

- c. Man-days and material costs (expenditures).
- d. Hands-on PMS training provided to S/F.


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**MEMORANDUM OF AGREEMENT
BETWEEN
(RMC) Production Department
and
USS (Ship Name) (hull number)**

1. Purpose. The purpose of this Memorandum of Agreement (MOA) is to establish the mutual framework governing the relationships and responsibilities, between (RMC) Production Department and (SHIP NAME) while conducting the Deck Maintenance Assist Team (DMAT) visit from ____ to _____. The areas of responsibility and relationships presented herein provide the concept under which the program will be executed.

2. Background. (RMC) was tasked by (TYCOM) to establish a comprehensive materiel and maintenance review of deck machinery, specifically on Boat Davits, Sliding Padeyes and J-Bar Davits. The focus objective is to increase the overall level of materiel readiness and ship's force (S/F) knowledge.

3. Responsibilities. The following paragraphs identify responsibilities between DMAT and (SHIP NAME).

a. DMAT responsibilities: (Find-Fix-Train)

(1) Assist Ship's Force (S/F) with comprehensive review of materiel condition by identifying, documenting and correcting materiel discrepancies on the boat davit(s), sliding padeyes, J-Bar davits and lifelines. The team will also train S/F personnel on how to properly perform preventive and corrective maintenance.

(2) Provide the necessary materiel support for all preventive and corrective maintenance with the exception of HAZMAT materiel, i.e. greases oils and solvents.

(3) Provide a schedule of events to include:

Day One

- Inspect designated equipment.
- Verify the S/F work logs and CSMP.
- Verify Work Center 43P1.
- Verify weight test data, blue prints and tech manuals.

27 Feb 12

- Review placards (lubrication charts, operation procedures, hoisting-lower procedures, emergency operation procedures, load data, etc.).
- Energize and verify the illumination of Underway Replenishment and Davit Floodlights.
- Verify locking devices, power panel condition, wiring and crew prelims for the systems.
- Verify structural conditions, limit switch markings (if required), stowage gripes, quick release hooks, manropes and shackles.
- Visually inspect all lubrication fittings.
- Check tools, materiels and HAZMAT.
- Begin researching repair parts and technical documentation (NSTM, drawings, PMS and Safety Manual (5100 Series)) to prepare for maintenance and repairs.

Day Two (No System Tag-out)

- Perform operational testing (no load) with S/F in accordance with PMS cards; identify operational limitations.
- Complete non Tag-out related PMS MRCs for STBD Davit and STBD Sliding Padeye.
- Perform PMS and maintenance requirements with S/F on J-Bar Davits, Sockets and Lifelines IAW PMS and technical data.
- Annotate and correct discrepancies as required IAW PMS.
- Order repair parts as necessary.

Day Three (No System Tag-out)

- Perform operational testing (no load) with S/F in accordance with PMS cards; identify operational limitations.
- Complete non Tag-out related PMS MRCs with S/F for Port Sliding Padeye.
- Perform PMS and maintenance requirements with S/F on J-Bar Davits, Sockets, and Lifelines IAW PMS and technical data.
- Annotate and correct discrepancies as required IAW PMS.
- Order parts for repairs as necessary.

Day Four (System Tag-out Required)

- Perform Tag-out related PMS MRCs with S/F for STBD Davit and PORT and STBD Sliding Padeye.
- Verify oil levels, oil condition and brake condition IAW PMS and NSTM.
- Perform PMS and maintenance requirements for J-Bar Davits, Sockets and Lifelines IAW PMS and Technical data.
- Annotate and correct discrepancies as required IAW PMS.
- Order parts for repairs as necessary.

Day Five (System Tag-out Required)

- Perform remaining Tag-out related PMS MRCs with S/F for STBD Davit and PORT and STBD Sliding Padeye.
- Annotate and correct discrepancies as required IAW PMS.
- Order parts for repairs as necessary.
- Restore and operationally test remaining systems under repair.
- Provide a status brief to the 1st LT and Maintenance Team (MT) covering noted system conditions, corrections, accomplishments, and the maintenance that remains outstanding.
- Provide applicable upkeep suggestions or recommendations as required.
- Assist S/F in generating 2-Kilos for actions unable to be completed due time frame or scope of work beyond the DMAT capability.

b. Ship Force responsibilities:

(1) Obtain an authorized materiel lay-down area during the DMAT Assist Visit for stowage of the inboard boat.

(2) Ensure prior to the Assist Visit that the ship's position along the pier allows for performing operational no load test of the inboard Boat Davit.

(3) Generate 2-Kilos for the following:

27 Feb 12

(a) Request DMAT to assist S/F with each boat davit assessment and repairs (one 2-K for each davit).

(b) Request DMAT to assist S/F with sliding padeye assessment and repairs (one 2-K for each sliding padeye).

(c) Request DMAT to assist S/F with J-Bar Davit assessment and repairs.

(d) Request DMAT to assist S/F with lifeline assessment and repairs.

(4) S/F will be responsible for all tag-outs and operational permissions necessary in accordance with PMS, Command/Base Instructions, and/or Standing Orders.

(5) Provide required HAZMAT in accordance with PMS MRCs and NSTMs and have HAZMAT ready for use throughout the visit.

(6) Participate in all assessments, maintenance actions, and repairs on targeted equipment.

(7) Operate all shipboard systems and equipment in support of the DMAT visit.

(8) Provide (1) EM, (2) BM, and (1) EN (preferably E-5 or above personnel), who are normally responsible for preventive and corrective maintenance on specified equipment.

Commanding Officer
USS UNDERWAY (DDG XXX)

Production Officer
NSSA-RMC, Code 900

27 Feb 12

Sample DMAT Visit Departure Report4790
Ser 900/
Date

From: Commanding Officer, (RMC)
To: Commanding Officer, USS _____

Subj: DECK MAINTENANCE ASSIST TEAM VISIT DEPARTURE REPORT FOR
USS (*SHIP NAME*) (*HULL NUMBER*)

Ref: (a) CNRMCINST 4790.3, Surface Ship Maintenance Assist
Teams

Encl: (1) Deck Maintenance Assist Team (DMAT) Visit Summary
for USS (*SHIP NAME & hull #*) *Date (Day Month Year)*

1. This Departure Report is submitted per reference (a) and covers the Deck Maintenance Assist Team (DMAT) visit onboard (*SHIP NAME*) during *Date (Day Month Year)*. The materiel condition of the following equipment was assessed:

- a. Boat Davit (Port and STBD)
- b. Sliding Padeyes (Port and STBD)
- c. J-Bar Davits

2. Enclosure (1) of this report lists the discrepancies noted and actions taken. Additionally, 2-Kilos were generated for entry into the CSMP to document all completed ICMP tasks.

3. There were **XX** man-days (**XXX** man-hours) expended and \$xx,xxx in materiel costs.

4. Hands-on training was provided to the following ship's force personnel:

EM2 *Motivator*
BMSN *Onthespot*

BMSN *Bullseye*
SN *Precise*

(*COMMANDING OFFICER*)

Enclosure (2)

CNRMCINST 4790.3
27 Feb 12

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27 Feb 12

**FMR Deck Maintenance Team (DMAT) Visit Summary for
USS (SHIP NAME) (hull #) Date (Day Month Year)**

Equipment: Port and STBD Boat davits, Port and STBD Sliding Padeye, and all J-Bar Davits.

Port Davit

1. PMS Accomplished: MIP 5831 Boat Handling and Stowage System, Boat Davit MRCs: M-2, Q-2, Q-3, S-1, S-3, S-8, S-9, S-10, A-1, A-3, A-4, A-6, A-10, A-12, A-18, 24M-1 and R-2.
2. Lens of Maximum Displacement gauge was cracked and required replacement. **(Corrected)**
3. Lens of Minimum Displacement gauge was cracked and required replacement. **(Corrected)**
4. Lens of Main Pressure gauge was cracked and required replacement. **(Corrected)**
5. Tension Control Valve "L" Block was corroded beyond repair. **(Corrected)**
6. Tension Regulator was corroded beyond repair. **(Corrected)**
7. Operating and Lubricating placards were missing. **(Corrected)**
8. All floodlights were inoperable. **(Corrected)**
9. Belly Bands were weathered and deteriorated beyond repair. **(Corrected)**
10. Boat Gripes were weathered and deteriorated beyond repair. **(Corrected)**
11. Winch Motor was heavily corroded. **(Ship's Force Action Item)**

STBD Davit

1. PMS Accomplished: MIP 5831 Boat Handling and Stowage System, Boat Davit MRCs: S-1, S-3, S-4, S-5, S-10, S-15, A-1, A-2, A-3, A-4, A-5, A-6, A-8, A-10, A-11, A-12, A-13, A-18 and R-2.
2. Belly Bands were weathered and deteriorated beyond repair. **(Corrected)**
3. Floodlights were inoperable and required replacement. DMAT corrected all but three. **(Ship's Force Action Item)**
4. Winch Motor was corroded and required preservation. **(Ship's Force Action Item)**
5. Securing pendants were missing cotter pins. **(Corrected)**
6. Power panel was missing label for On and Off positions. **(Corrected)**
7. Ratchet for emergency operation was missing. **(Corrected)**
8. Pump handle for emergency operation was missing. **(Corrected)**

PORT Sliding Padeye

1. PMS Accomplished: MIP 5713 Replenishment at Sea System, Sliding Padeye MRCs: Q-4R, S-2, S-3, A-2, A-4, 18M-5 and 18M-6.
2. Electrical connection box conduit and fittings on motor were beyond repair and required replacement. **(Corrected)**
3. Conduit from bulkhead to electrical connection box cracked and deteriorated. **(Corrected)**
4. Red and Yellow UNREP markings were missing. **(Ship's Force Action Item)**
5. All of the placards were missing. **(Corrected)**

STBD Sliding Padeye

1. PMS Accomplished: MIP 5713 Replenishment at Sea System, Sliding Padeye: Q-4R, S-2, S-3, A-2, A-4, 18M-5 and 18M-6.
2. Electrical Connection Box conduit and fittings on motor were beyond repair and require replacement. **(Corrected)**
3. Red and Yellow UNREP markings were missing. **(Ship's Force Action Item)**
4. All of the placards were missing. **(Corrected)**

J-Bar Davits

1. PMS Accomplished: MIP 5821/55-60 Portable Davit, MRC: S-1.
2. On the STBD Quarterdeck, one of four J-bar Davits was frozen in place. **(Corrected)**

Training and Pre-Deployment Inspection

1. Provided training to Ship's Force on the following: The importance of PMS and proper procedure using PMS card in accordance with the technical manual, using the correct HAZMAT , parts and tools, verifying correct grease fittings.
2. Provided "Hands-on" training to EM2 *Motivator*, BMSN *Bullseye*, BMSN *Onthespot*, and SN *Precise*.
3. DMAT Assisted Ship's Force with pre-deployment inspection of the following equipment: 4 UNREP Stations, Accommodation Ladder, Lifelines, Anchor Chain and accessories, Life Rings and Distress Markers, Deck Stanchions and Fittings, Night Lights, Scuppers, Placards on different stations, and FWD and AFT Roller bearings.

DMAT Expenditures: ## man-days and \$ xx,xxx.

Material List

1. Limit Switch (2 ea)
2. Conduit (35 ft)