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Subj. Maintenance Management Standing Operating Procedures (SOP)

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# MAINTENANCE MANAGEMENT SOP

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# MAINTENANCE MANAGEMENT SOP

## INTRODUCTION

0001. PURPOSE. This SOP has as its purpose the promulgation of policies, procedures and technical instructions for the administration of maintenance management programs at Marine Corps Development and Education Command, Quantico, Virginia.

### 0002. APPLICABILITY

1. Procedures established herein are applicable to all equipment listed in the Table of Authorized Materiel (TAM), NAVMC 1017, garrison mobile equipment listed in the current edition of MCO 4440.27, office machines, Marksmanship Training Unit equipment listed in the current edition of MCO 8373.2 and Navy furnished Marine Corps maintained equipment.

2. Specifically excluded from this SOP are appliances used in quarters, push-type lawn mowers, field printing equipment and nontactical food service equipment.

3. Audiovisual equipment will be maintained in accordance with the current edition of MCO P5290.1 and applicable maintenance management programs established by the current edition of MCO P4790.2.

### 0003. MARINE CORPS INTEGRATED MAINTENANCE MANAGEMENT SYSTEM (MIMMS)

1. Marine Corp Orders P4790.1 and P4790.2 set forth policies and procedures for the management of ground equipment maintenance in the Marine Corps. Although the terminology used in those manuals is directed toward the Fleet Marine Forces, the policies and procedures established are equally applicable to this Command. MIMMS is applicable to the entire range of ground equipment in use in the Marine Corps today.

2. This SOP provides a comprehensive guide for the performance and management of all ground equipment maintenance of all subordinate and tenant activities at this Command and establishes command and staff relationships in the accomplishment of equipment maintenance programs. Equipment maintenance and maintenance management functions are identified; procedures are provided for their accomplishment and responsibility is assigned to the appropriate activity head. Relationships between MIMMS and other Marine Corps programs that are maintenance related are identified and explained.

MAINTENANCE MANAGEMENT SOP

CHAPTER 1

RESPONSIBILITIES

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 1

### RESPONSIBILITIES

1000. COMMAND RESPONSIBILITIES. The requirement to maintain materiel in a condition to perform its intended function is a command responsibility.

1. Activity Heads. Each activity head will personally ensure that a sound and continuing equipment maintenance program exists within the activity and that proper maintenance procedures are established and followed. To ensure that an effective equipment maintenance program is established and implemented, activity heads will:

a. Provide necessary guidance in the form of standing operating procedures.

b. Ensure that the necessary tools, test and measuring equipment, publications, supplies and facilities are available.

c. Allocate sufficient time during which the required maintenance may be accomplished.

d. Provide necessary technical training to enable assigned personnel to accomplish the maintenance mission.

e. Provide the impetus for the program through an active, continuous and visible display of command emphasis and interest. The accomplishment of this program by maintenance personnel will depend on the emphasis and interest afforded the program by activity heads. The importance of expeditiously accomplishing required equipment preventive maintenance at the lowest level to preclude costly high echelon corrective maintenance must be stressed continuously. Equipment cannot be allowed to deteriorate through neglect or design.

2. Subordinate Activity Heads. Subordinate activity heads shall regularly and frequently advise their senior activity heads on the status of equipment maintenance within their activities.

3. Maintenance Management officers

a. In accordance with procedures established in the current edition of MCO P4790.1 and par. 1004.3/4 of MCO P4790.2, the following activity heads will appoint an officer or staff NCO, in writing, as Maintenance Management Officer (MMO) and publish a Maintenance Management SOP:

Commanding Officer, The Basic School  
Director, Communication Officers School  
Head, Support Division, Facilities Department  
Facilities Maintenance Officer, Facilities Department

b. A copy of the MMO appointment letter will be forwarded to the Commanding General (Code C 049). An activity head authorized a second or higher echelon of maintenance in one commodity only will appoint a commodity manager to establish a maintenance management program. This appointee will perform maintenance management functions and shall publish maintenance management procedures in either a Commodity Maint/Unit Logistics SOP or a Maintenance Management SOP in accordance with par. 1004.3a and 1004.4b of MCO P4790.2B.

#### 1001. STAFF RESPONSIBILITIES

1. Assistant Chief of Staff, Manpower. Serves as the principle staff officer on matters pertaining to the assignment of maintenance personnel and coordinates with the Command MMO on maintenance personnel authorizations, allocations and assignments.

2. Assistant Chief of Staff, Operations. Provides training support services for, and maintenance of, training support equipment; obtains quotas for officers/SNCOs for maintenance and maintenance management training; and coordinates with the Command MMO on the training of maintenance and maintenance management personnel.

3. Assistant Chief of Staff, Comptroller. Evaluates budgetary and financial management procedures effecting maintenance management.

4. Assistant Chief of Staff, Supply. Coordinates with the Command MMO and activity maintenance management officers on maintenance management matters.

5. Head, Management Systems. Provides automated data processing services to support the Command Maintenance Management Reporting System (CMMRS), supervises office machine maintenance and repairs.

6. Safety Manager. Coordinates with the Command MMO on all safety aspects of equipment maintenance.

7. Assistant Chief of Staff, Facilities. Serves as the principle staff officer on matters pertaining to The following activity heads:

a. Command Maintenance Management Officer

(1) Advises the Commanding General on all matters pertaining to equipment maintenance management, equipment maintenance and the impact of the maintenance effort on equipment readiness.

(2) Plans and coordinates all equipment maintenance resources.

(3) Supervises and coordinates the equipment maintenance/maintenance management programs and the Command Maintenance Management Reporting System (CMMRS).

(4) Coordinates the Quality Def iciency Report (QDR) Program and the Quality Reliability Report (QRR) Program.

(5) Maintains and updates this SOP.

b. Facilities Maintenance Officer (FMO)

(1) Advises the Commanding General on all engineering matters.

(2) Provides maintenance support for small engines and all engineer equipment.

(3) Coordinates with the MMO on engineer equipment maintenance and maintenance management matters.

(4) Coordinates and administers the Load Testing Program.

c. Head, Support Division. Serves as the special staff officer on matters pertaining to the following activity heads:

(1) Motor Transport Officer. Advises the Commanding General on motor transport matters and coordinates with the MMO on motor transport equipment maintenance and maintenance management.

(2) Head, Ordnance Maintenance Branch. Advises the Commanding General on ordnance matters and coordinates with the MMO on ordnance maintenance and maintenance management matters.

(3) Head, Electronics Maintenance Branch. Coordinates with the MMO on communication/electronics equipment maintenance and maintenance management.

(4) Communication officer. Coordinates with the MMO on communication and Military Affiliate Radio Service equipment maintenance.

8. Activity Maintenance Management Officers/Commodity Managers. Operates in accordance with the current editions of MCO P4790.1, MCO P4790.2 and Technical Manual 4700-15/1.

1002. STANDING OPERATING PROCEDURES

1. Activity SOPs will implement Marine Corps and MCDEC directives to apply locally. The current edition of MCO P4790.2 will be used as a guide to prepare SOPS.

2. Activity heads with organic maintenance shops will publish SOPs for those shops.

3. Each activity head not listed in paragraph 1000.3 above, who has a maintenance capability in a given commodity area, will publish a

commodity SOP covering maintenance and maintenance management.

4. Center Directors are exempt from appointing MMOs and publishing SOPs, however, compliance with applicable maintenance management programs (e.g., tool control, calibration) directed by the CMC or CG is required.

### 1003. DESK-TOP PROCEDURES/TURNOVER FILES

1. Purpose. The frequent change of personnel within units results in a lack of expertise and continuity in day-today operations. Proper use of desk-top procedures and turnover folders greatly alleviates this situation and improves the overall efficiency of an organization.

2. Desk-Top Procedures. Each unit/section shall prepare desktop procedures for each billet involving administrative and management functions. For example, desk-top procedures are appropriate for clerks in the shop office, shipping and receiving shop, library, shop supply, MMO office, dispatchers and tool room personnel. It is not intended that NCO's desktop procedures be all-inclusive or formalized but, rather, a simple listing of significant items or notes pertinent to everyday operations within a particular billet. Normally, they would include such items as current references, procedures for carrying out required duties, telephone numbers of individuals who might need to be contacted, and reports required. The listing of procedures should not be voluminous, as this will tend to discourage its use. Each will prescribe steps to be followed in the accomplishment of all authorized maintenance or related actions. Procedures will standardize requirements, actions and recordkeeping.

### 3. Turnover Folders

a. A turnover folder will include information about policy, personnel, status of pending projects, references, management controls, functioning of the work section and other means of accomplishing routine, as well as infrequent, tasks and should include other such information as would be of value to an individual newly assigned to that billet.

b. To be of real value, turnover folders should contain, as a minimum, statements concerning the following:

(1) Title of the billet.

(2) To whom the individual occupying the billet reports to and incumbent billets subordinate thereto.

(3) The mission of the billet (broad billet responsibilities).

(4) The functions involved in accomplishing the mission (principle action taken).

(5) Tasks and basic operations regularly performed in accomplishing specific functions.

(6) List of orders and other directives which are pertinent to the billet.

(7) List of required reports, dates of submission, etc.

(8) Relationship with activities both in, and not in the official chain of command, including unofficial liaison and coordinating functions. Brief statements concerning the type of matters on which these agencies are consulted should be included.

(9) Personnel contacts within or external to the Command, listing telephone numbers and/or addresses. The purpose served by the contact should be included.

(10) Miscellaneous information should be included, e.g., administrative or operational procedures peculiar to the billet, such as duel responsibility,

(11) Past, pending and anticipated projects should be itemized and continually kept current. A short resume of past projects considered unusually important, a status report of each pending project, and a brief outline of projects considered worthwhile for future implementations should all be included.

c. Folders should be arranged in such a manner as to permit ease in changing those sections requiring frequent modification. The degree of detail included must be flexible and is subject to the discretion of organizational commanders. The important consideration is that the content of folders should be directed towards rendering maximum assistance to the relief.

4. Review. Desktop procedures/turnover files will be reviewed quarterly by the officer in charge to ensure completeness, updating if required, and contain a cover page containing the signature of reviewer and date reviewed.

MAINTENANCE MANAGEMENT SOP

CHAPTER 2

EQUIPMENT MAINTENANCE OPERATIONS

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 2

### EQUIPMENT MAINTENANCE OPERATIONS

2000. MAINTENANCE FUNCTION. Part of the mission of this Command is to educate officers in the principles, tactics and techniques of warfare, with particular emphasis on the landing force aspects of amphibious operations, in order to provide commanders and staff officers for the air-ground forces of the Marine Corps. Within this stated mission is the implied function of maintaining the equipment in an operationally ready condition to support the training process. Maintenance facilities, personnel and equipment are available to accomplish this function. Depending on the extent of the resources provided, activity heads may have an organizational maintenance function or an organizational and intermediate maintenance function.

1. Organizational Maintenance. Organizational maintenance is that level of maintenance performed by an activity on its own equipment. It is divided into two sub-levels: first and second echelons. Some activities may perform third and fourth echelon maintenance on its own equipment, but this usually is an exceptional procedure.

a. First echelon efforts are primarily directed at the preventive maintenance (PM). The principle actions of PM are inspecting, cleaning, servicing, lubricating and adjusting. First echelon services are performed by the operator or crew of an item of equipment using the equipment operator's guide in accomplishing the required maintenance actions.

b. Second echelon PM and corrective maintenance (CM) is that work an activity technician/mechanic performs as outlined in applicable equipment technical publications. Second echelon maintenance is performed by specially trained technicians authorized by the Table of Organization (T/O) to the activity.

2. Intermediate Maintenance. Intermediate maintenance is that which is performed by designated maintenance activities in support of using units. It is subdivided into third and fourth echelons.

a. Third echelon maintenance is the replacement or limited repair of unserviceable parts and components.

b. Fourth echelon maintenance includes minor overhaul of components, subassemblies, and the end item itself.

c. Intermediate maintenance actions will be performed by specially trained technicians/mechanics as authorized by the T/O. Specific level/echelon of maintenance will be determined by referring to appropriate equipment technical manuals.

3. Depot Maintenance. Depot level maintenance (5th echelon) involves a major overhaul or complete rebuilding of parts, subassemblies, or

the item of equipment. MCDEC units authorized 5th echelon maintenance are subject to the provisions of paragraph 1002 of MCO P4790.2 and this SOP.

2001. MAINTENANCE POLICY. Activities shall perform maintenance on organic equipment within authorized echelons of maintenance. Equipment requiring maintenance beyond the echelon authorized shall be expeditiously evacuated to the intermediate maintenance activity head (see figure 2-1).

1. Overflow. When shortages of personnel, tools, and/or test equipment preclude accomplishment of authorized maintenance,, equipment requiring such maintenance will be evacuated to the supporting maintenance activity head and marked as "overflow." The reason for the evacuation will be entered in the "remarks" section of NAVMC 10245, Equipment Repair Order (ERO). Prior to evacuating equipment as "overflow", the requirement will be coordinated with the supporting maintenance activity head.

2. Maintenance by Cannibalization and Selective Interchange. The following definitions provide guidance/clarification concerning cannibalization and selective interchange:

a. Cannibalization. Cannibalization is defined as the removal of serviceable parts from one item of equipment in order to install them on another item of equipment.

b. Selective Interchange. Selective interchange is the exchange of selected serviceable repair parts/components from a deadline item of equipment for unserviceable repair parts/components from a like item. The exchange, however, may take the form of a requisition for the replacement repair part/component in lieu of the actual unserviceable repair part/component.

3. The difference between the two definitions is that selective interchange addresses the replacement of the removed serviceable repair part/component, whereas cannibalization does not. This fact has led maintenance personnel to erroneously believe that selective interchange is not cannibalization. By definition (removal of serviceable parts/components from one item for use in repairing another item) selective interchange is, in act, a lesser degree of cannibalization. As such, the conduct of selective interchange shall require the same authorization as cannibalization.

4. Requests for authority to do cannibalization/selective interchange on a case-by-case basis will be submitted to the Commanding General (Code C 049). Time sensitive requests may be telephoned to the Command MMO (640-2309) followed by a written request within 24 hours. If authorized, cannibalization will generally be accomplished at the lowest maintenance echelon authorized to remove and replace the part/component.

5. Maintenance by cannibalization or selective interchange will not be employed, except:

a. To ensure that a minimum number of items of mission essential combat equipment is deadline at any one time for lack of critical repair parts. Maintenance by cannibalization or selective interchange is considered to be an exceptional procedure and is authorized only for mission essential combat equipment when an operational commitment is imminent, and only when it appears that the required part may not be obtained on a timely basis.

b. For commercial-type items of station property:

(1) Having an original acquisition cost of \$1,000 or less.

(2) When, in the opinion of the supporting organizational commander, such an item is no longer useable in its present condition and cannot be economically repaired and used for the purpose for which originally intended, nor could it be expected to realize a fair market value if used for trade-in purposes.

c. As may be otherwise authorized by the Commandant of the Marine Corps (Code LM).

6. When the officer in charge of the intermediate maintenance activity receives authority to perform selective interchange,, stern managerial control practices must be implemented at the command and maintenance facility levels to ensure that:

a. The Commanding Officer of the owning unit of the equipment from which the serviceable parts/components are to be removed has concurred with and thereby authorizes such action.

b. The equipment from which serviceable parts/components are to be removed will not, as a result of such removal, become a candidate for the Recoverable Items Program by exceeding the onetime cost-of-repair authorization or exceed the maximum maintenance cycle time for repair. The conduct of the secondary reparable interchange must be in the best interest of the Marine Corps; i.e., it must be cost-effective and result in the removal of one item of equipment from deadline without degrading another item of equipment beyond economical repair.

c. The unserviceable parts/components and associated supply requisitions become identified with the item of equipment from which the serviceable items were removed. Unserviceable parts/components which are irreparable will be disposed of in accordance with current instructions and replacement items placed on requisition. When considering secondary reparable interchange action, sufficient time must remain within the maximum allowable maintenance cycle time for Supply to properly respond to demands.

7. Commanders/officers in charge must exercise caution to ensure that this process does not create items which are permanently deadline ("Hangar Queens").

2002. MAINTENANCE CAPABILITIES/LIMITATIONS. Activity heads are both authorized and required to perform equipment maintenance only within the maintenance echelons established in the logistics capabilities paragraph of the activity T/O. The echelon of maintenance specified determines the number of military occupational specialty (MOS) personnel assigned, and the support and test equipment authorized in the Table of Equipment (T/E) or allowance list.

1. Personnel. Maintenance personnel allocations sufficient to perform the authorized echelon of maintenance are contained in the activity T/O.

a. The maintenance organization established in the T/O is recognized as standard for the activity, but is not inflexible. Activity heads may temporarily modify the structure of the activity's organization, subject to the restrictions of the current edition of MCOs P5310.6 and P5311.1, if such modifications will improve efficiency.

b. The T/O will be reviewed, as required, by the activity MMO to ensure that the maintenance organization and maintenance personnel authorization established provide for the successful accomplishment of the maintenance function. Reviews must be conducted on any occasion when changes in the activity mission, concept of employment, or equipment requiring maintenance affect the maintenance capabilities of the activity. The current edition of MCOs P5310.6 and P5311.1 contains instructions for the submission of recommended changes to the T/O.

2. Equipment

a. The authorized equipment for the accomplishment of the activity's mission, including the support and test equipment required for equipment maintenance is established in the activity T/E. In addition to the end items listed in the T/E which must be controlled by type and quantity, activity heads are authorized to hold required quantities of equipment which are not included in the T/E. NAVMC 1017, TAM, Type II items and commercial support/test equipment and tools are examples of this latter category.

b. Equipment allowances for the performance of maintenance are based on the T/O, the concept of employment, authorized maintenance capabilities, and projected maintenance requirements. The T/E and the list of required equipment will be reviewed by the activity MMO, as necessary, at any time there is a change in mission, concept of employment or maintenance requirements. The purpose of this review is to ensure that the equipment authorized

the activity is capable of supporting the activity's maintenance mission and on hand equipment is not in excess of requirements. NAVMC 1017, and the current edition of MCDECO P4400.1 provide instructions for preparation and submission of modification of allowance requests. The T/O and T/E should be reviewed simultaneously to ensure that%

(1) Required personnel are authorized to support the mission.

(2) Required maintenance equipment is authorized to support any changes to the mission, etc.

### 3. Limitation of Capabilities

a. Activities are both authorized and required to perform equipment maintenance actions within the maintenance echelons established in the logistics capabilities paragraph of the T/o. Conversely, except as specifically authorized by the Commanding General, activities will not perform maintenance actions of an echelon higher than those authorized by the T/O. The experience level of assigned maintenance personnel or availability of resources required to perform a higher echelon of maintenance than authorized do not, in themselves, constitute such authorization.

b. Authority to exceed the echelon of maintenance specified in the logistics capabilities paragraph of an activity's T/O may be granted by the Commanding General. This increased authority will be granted only when it will provide for the more effective use of available resources, enhance readiness, reduce excessive backlogs existing at higher echelon maintenance facilities, or result in a savings in maintenance costs. Activity heads desiring authority to accomplish an echelon of maintenance higher than that authorized in the activity T/O shall submit a request to the Commanding General (Code C 049). The request shall contain, as a minimum, the following information:

(1) Necessary maintenance resources, including personnel, are or can be made available.

(2) The assignment will not interfere with the accomplishment of regularly assigned levels of maintenance or the general mission of the activity.

(3) Higher echelon of maintenance activities cannot perform the required maintenance within acceptable time limitations.

(4) Other justification, if applicable, for the assignment of authority to accomplish higher echelon maintenance. If, for example, reduced maintenance cost is cited as a reason, detailed explanation of the savings to be realized shall be provided.

c. Authority granted in accordance with this paragraph is temporary and must be renewed semiannually.

### 2003. ORGANIZATION FOR MAINTENANCE

1. Activities are authorized by T/O to perform specific echelons of maintenance. Figure 1-2 depicts the responsibilities established for providing equipment maintenance support. By referring to this chart, activity responsibility and the supporting maintenance activity can be determined for equipment by commodity area or type.

2. Units Performing Fifth Echelon Maintenance. This Order is applicable to all MCDEC units performing fifth echelon maintenance.

3. Exemptions. Certain classes of equipment are exempt from the policies and procedures contained in this order when maintenance policies and procedures for that equipment are established by other directives as cited in the following:

a. Navy Materiel. Materiel furnished to aviation elements of the Marine Corps and medical/dental materiel furnished to Marine Corps units are exempt from the provisions of this Order when such materiel is subject to maintenance policies and procedures prescribed by the Chief, Naval Operations or Chief, Bureau of Medicine and Surgery. Navy-furnished materiel designated to be maintained by the Marine Corps under an interservice support agreement (ISSA) or directive will be subject to the provisions of this Order.

b. Garrison Mobile Equipment (GME). When the Department of Defense, Department of the Navy, or Marine Corps directives specify procedures different from those prescribed in this Order for maintenance of GME materiel, those specific procedures shall take precedence. The Commandant of the Marine Corps (Code LMM), via the appropriate chain of command, will be notified of the procedures that are identified as being different than those contained in this Order.

c. Industrial Plant Equipment (IPE). When IPE does not appear on the tables of equipment (T/E) or in NAVMC 1017 (TAM), it is exempt from the provisions of this Order. The IPE is that part of plant equipment with an acquisition cost of \$1,000 or more, used for the purpose of cutting, abrading, grinding, shaping, forming, joining, testing, measuring, heating, treating, or otherwise altering the physical, electrical, or chemical properties of materials, components, or end items entailed in manufacturing, maintenance, supply processing, assembly or research and development operations.

d. Development Equipment. Equipment under development/prototypes or waiting approval to be put into service and those items used as official test beds; e.g., to develop modifications, lubricants, product improvements, etc., are exempt from the provisions of this Order.

e. Other. Those items meeting all of the criteria established in par. 2003.3c, except for cost, are exempt from the provisions of this Order.

#### 2004. MAINTENANCE ACTIONS

1. The maintenance operations of activities are principally directed toward the accomplishment of the types of equipment maintenance actions listed below. The range and depth of the actions accomplished are dependent on individual activity maintenance capabilities as established in the T/Os and indicated in figure 1-2.

- a. Equipment recovery.
- b. Preventive maintenance.
- c. Corrective maintenance.
- d. Equipment modification.
- e. Equipment calibration.
- f. Equipment evacuation.
- g. Limited technical inspections.

2. Fifth echelon maintenance services; e.g., overhaul, rebuild, conversion, modernization, will not be performed on tactical equipment by activities of this Command unless specifically authorized by the Commandant of the Marine Corps.

3. Equipment Recovery. Recovery of equipment is the removal of all or part of it from the area where it became disabled. Equipment recovery is the responsibility of the using activity, within its capabilities. Recovery operations not within the using activity's capabilities will be performed by the supporting maintenance activity.

4. Preventive Maintenance (PM). Preventive maintenance is the care and service performed on equipment to keep it in operating condition. It is accomplished by the systematic inspection, detection, and correction of impending failures before they occur or develop into major defects. An effective PM program will preclude breakdowns or failures and the resulting costly corrective maintenance and loss of use of the equipment while it is undergoing repair.

a. Preventive maintenance services, also referred to as scheduled maintenance, are cyclic in nature and include:

(1) Services performed by the user, operator, driver, or crew on a daily, weekly or monthly basis.

(2) Services performed by activity maintenance personnel, assisted by the operator or crew, on a calendar, mileage, rounds fired, or hours of operation basis.

(3) Special PM services performed by operational and maintenance personnel.

b. Preventive maintenance services shall be performed in accordance with instructions contained in the applicable technical publications or manufacturer's instructions. If the instructions in the technical publications conflict with those of the manufacturer, the manufacturer's instructions will be complied with to preclude invalidating any available warranty. In the event that no PM schedule is established in the technical publication, or by the manufacturer, the activity head will establish and publish a PM schedule for the equipment.

c. Changes in PM Service Intervals. If a unit is operating under adverse climatic or terrain conditions for a period of time, commanders are authorized to reduce the intervals between the performance of PM services when conditions indicate the need.

d. Deferred PM Service. Preventive maintenance service may be deferred or intervals extended for the following reasons: equipment is placed in administrative storage, equipment is placed on administrative deadline, or equipment has low usage. The criteria and PM requirements are depicted in Figure 2-2, Deferred Preventive Maintenance Service Guide. The TMDE, when placed in administrative storage or deadline must be classified as inactive, and the appropriate "Inactive" calibration label affixed.

e. Accomplishment of required PM is the responsibility of the head of the activity to which the equipment is assigned.

(1) All required PM services shall be performed prior to evacuating the equipment to higher echelon for maintenance. Common sense and good judgment may indicate, however, that certain PM requirements be omitted if the corrective maintenance action duplicates or negates the effect of the PM. For example, it is unnecessary to change the oil in a vehicle prior to evacuation when it is obvious the engine will either be replaced or the oil will be removed in the corrective maintenance process.

(2) PM services coming due on equipment which has been evacuated for higher echelon maintenance remain the responsibility of the owning activity head. Accomplishment will be coordinated with the head of the supporting maintenance activity. PM services will be completed as far as possible without interfering with the required corrective maintenance. Again, common sense and good judgment will be used to preclude the accomplishment of unnecessary PM functions.

f. The best preventive maintenance program starts with the operator and is the lowest cost of maintenance. No one is more

familiar with the equipment than the individual who uses it. With proper guidance, indoctrination and supervision, the operator can materially reduce the deadline rate by using proper procedures in the care and use of the equipment. Command attention and supervision by supervisory personnel at all levels is required to ensure that proper maintenance procedures are used. Programs to educate operators in proper first echelon maintenance procedures must be continuous.

g. Enthusiasm is contagious. By evidencing an interest in the condition of the equipment, supervisory personnel can influence the operators and technicians/mechanics in their maintenance efforts.

h. Accomplishment of PM services will be recorded in equipment records in accordance with the current editions of TM 4700-15/1 and MCOs 11240.48 and 11260.3.

5. Corrective Maintenance (CM). Corrective maintenance is action taken to restore to operating condition an item of equipment which has failed or broken down. Specific tasks involved in the corrective maintenance process will vary between echelons of maintenance.

a. Organizational Responsibility

(1) The user of the equipment is responsible for detecting and reporting equipment failure or malfunction.

(2) Maintenance personnel assigned shall inspect the equipment and, if within their authorized capability, effect the necessary repairs.

(3) If the repairs required are beyond the capability of the activity, the deadline item of equipment shall be evacuated to the supporting maintenance activity within 48 hours of detection. Deadline equipment, requiring maintenance beyond the capability of the activity, shall not be held in the activity in anticipation of additional failures and the consolidation of runs to the maintenance activity. All equipment that requires evacuation will apply proper preventive maintenance prior to evacuation.

(4) Equipment on which repairs have been completed at a supporting maintenance activity will be picked up by the owning activity within 48 hours of notification by the maintenance activity.

b. Support Maintenance Activity Responsibility

(1) Accept equipment for maintenance which is beyond the capabilities of supported activities. Under certain conditions, i.e., the lack of resources" personnel, tools, test equipment, etc., supported activities may evacuate equipment for maintenance which is normally within their capabilities.

(2) If there is evidence of abuse or neglect to an item of equipment, the appropriate commodity manager in the owning activity will be notified. Continued cases of abuse, neglect, or improper/lack of maintenance within the using activity's capability will be referred to the Command MMO who will notify the activity head or take appropriate action to notify the Commanding Officer.

(3) Effect the required repairs in the most expeditious, cost-effective manner. Repair will not be limited to correction of faults/failures diagnosed by the using activity. The supporting maintenance facility will establish quality control procedures to ensure equipment is fully operational prior to returning it to the owning activity.

(4) Immediately notify the owning activity when required repairs have been completed.

(5) Maintenance Cycle Time

(a) Definition. Maintenance cycle time is that period of time during which equipment is inoperative and requires repair.

(b) Maximum Maintenance Cycle Time

1 The maintenance cycle time commences on the date an item is received in the intermediate maintenance shop (date received in shop (DRIS)). The following maximum maintenance cycle times are established for equipment inducted into the intermediate shop-.

a End Items

(1) One hundred eighty days for West-/Mid-Pac units.

(2) One hundred twenty days for continental United States (CONUS) units.

b Secondary Repairables (Codes 0, F, H, D and L)

(1) Ninety days for West-/Mid-Pac units.

(2) Sixty days for CONUS units.

2 Maximum maintenance effort must be effected to repair equipment prior to reaching the maximum maintenance cycle time. The following are some actions the intermediate maintenance shop should take to complete repairs prior to the maximum maintenance time-.

a Detailed inspection of inducted equipment and requisition of known faulty components (secondary repairables/piece parts) shall be accomplished within 5 working days from t'he DRIS.

b All supply sources will be utilized to obtain the required components as authorized by UM 4400-15. This includes the requisitioning of not in stock (NIS) parts from other sources, including commercial procurements, fabrication, salvage, ISSA and contract maintenance.

3 Repeated supply follow-up actions as outlined in UM 4400-15 are a must, when necessary.

(c) Expiration of Maximum Maintenance Cycle Time. If the maximum maintenance cycle time expires or documentation shows that repairs cannot be completed within the maximum maintenance cycle time, the intermediate maintenance activity will:

1 Submit Recoverable Items Reports (WIR) requests in accordance with par. 3004 of this Order. Include in the remarks portion of the request all actions taken to obtain required parts, to include follow-up message traffic to the Marine Corps Logistics Base, (MCLB), Albany, etc.

2 Other-than-controlled items will be disposed of in accordance with the current edition of UM 4400-15.

(d) Exceptions. The maintenance operations officer of the intermediate shop may extend the limits of the maximum maintenance cycle time, subject to approval by the major command, when economically justified and advantageous to mission completion. Documentation for required repair parts must support this decision.

c. Corrective maintenance will be performed in accordance with the procedures established in the appropriate technical manuals.

6. Equipment Modification. Equipment modification consists of those maintenance actions performed on equipment to change the design or characteristics in order to improve the equipment's functioning, maintainability, reliability and/or safety characteristics.

a. Modification of Marine Corps equipment will be accomplished only when directed by the Commandant of the Marine Corps.

b. Authority and direction to modify Marine Corps equipment is contained in Modification Instructions (MI). Modification Instructions are classified as "Urgent" or "Normal."

(1) Urgent. A modification required to prevent death or serious injury to personnel, prevent major damage to equipment, or to make changes that are considered so essential that the modification must be accomplished at the earliest possible time. Urgent MI's may specify a required completion date and may restrict the operation of unmodified equipment.

(2) Normal. All other modifications. Normal modifications must be completed within one year of the effective date of the MI and are normally accomplished on a scheduled basis.

c. The owning activity head is responsible for ensuring that all modifications required on activity equipment are accomplished and properly recorded in equipment records by establishing a modification control point and modification control program as outlined in the current editions of MCO P4790.2 and TM 4700-15/1.

d. Equipment requiring modifications that exceed the maintenance capability of the owning activity will be reported to the supporting maintenance activity head. The head of the maintenance activity, if capable of performing the modification, will determine the total requirements for all supported activities; obtain the required parts/material, and establish a schedule for the accomplishment of the modification.

e. Equipment modification will be accomplished in conjunction with preventive or corrective maintenance, whenever possible.

f. Equipment modification will be recorded in accordance with the instructions contained in the current edition of TM 4700-15/1 and reported in accordance with the instructions contained in the MI and the current editions of MCO P4400.84 and MCO 11260.3 for garrison mobile engineer equipment (GMEE).

g. Modification of commercial equipment should also be recorded. Coordination with the manufacturer or distributor of procured equipment should be maintained so that required modifications are accomplished. See Chapter 9 of TM 4700-15/1E.

7. Equipment Calibration. Calibration is the process by which a standard, test, or measuring instrument is compared to a standard of higher accuracy and adjusted to ensure that the instrument being tested meets specifications approved by the Marine Corps.

a. Test, measure and diagnostic equipment (TMDE) used in the maintenance of other Marine Corps equipment must be periodically calibrated to ensure that preventive maintenance and repairs are properly accomplished and/or the accuracy of the repaired item. The calibration process is a continuing effort applicable to all commodity areas and technical fields using test, measuring and diagnostic equipment.

b. Activities possessing equipment that requires a determination as to calibration applicability and requirement will contact the MCDEC Calibration Control Point at the Electronics Maintenance Branch, Support Division (640-2194/95).

c. Definitions

(1) Test, Measure and Diagnostic Equipment (TMDE). Test, measure and diagnostic equipment includes all electrical and

electronic test instruments, radiac instruments, mechanical instruments, mechanical tools and equipment, ordnance gauges and instruments and any other items used to adjust or measure the performance of another item of equipment.

(2) Calibration Not Required (CNR). A classification assigned to items not requiring calibration due to:

(a) Item being listed in current calibration manuals/directives as CNR. Note: Labels expire every two years.

(b) An administrative decision, made by the activity head, that the item is used for qualitative (relative) measurements only.

(3) Inactive Calibration. A classification assigned to items not in current use which are not calibrated to conserve fiscal resources. Items bearing an inactive label must be calibrated prior to being used. Note: Labels expire every three years.

(4) Special Calibration. Formerly referred to as "limited calibration". this classification is used for equipment which is not calibrated over its entire range of operation. Examples are torque wrenches which are calibrated for clockwise operation only and meters or signal generators which are calibrated on one or a portion of the scales (ranges) available. Special Calibration will be used whenever applicable.

(5) Quantitative Measurements. The performance of accurate measurements at a specific value within established tolerances. A measuring device used for quantitative measurements requires periodic calibration.

(6) Qualitative Measurement. The performance of measurements at general values with broad or no tolerances specified. Meters used to determine the presence of a voltage where the exact measurement is not desired, are being used for qualitative measurements. Items used for qualitative measurements do not require calibration.

d. Activity Head Responsibilities

(1) Establish and maintain an effective calibration control program in accordance with the current editions of MCO 4733.1, MCO P4790.2, TM 4700-15/1 and TI 4733-15/1 and other applicable TIs in the 4733 series.

(2) Submit for calibration, all test, measurement and diagnostic equipment requiring calibration on a scheduled basis.

(3) Submit for calibration any test and measuring equipment received without a current calibration label affixed or which has

been repaired since it was last calibrated if such repair would affect the calibration. Repairs, such as replacing fuses, knobs, plugs, air filters, etc., will not normally affect calibration.

(4) Request special calibration for those instruments which are used only in a specific portion of their complete range.

(5) Request CNR labels for those instruments which are used for qualitative measurements only.

(6) Ensure that an inactive calibration label is affixed to each instrument not expected to be used during the next full calibration cycle. Instruments labeled inactive shall be submitted for calibration prior to use.

(7) Annually, during the month of April, submit a report of all test, measurement and diagnostic equipment on hand in the activity utilizing the format contained in Appendix C, to the Commanding General (Code C 043-5), with a copy to AC/S, Facilities (Code C 049). All test, measurement and diagnostic equipment must be identified. Care must be exercised in this report to ensure that test, measurement and diagnostic equipment which are components of other end items, such as tool kits or chests are included. Concurrent with this report, the activity head will determine the calibration requirements, i.e., full calibration, special, calibration not required, inactive and special calibration classifications.

(8) Establish procedures for incorporating new test, measurement and diagnostic equipment into the calibration cycle.

(9) Submit the items of test, measure and diagnostic equipment which require "Calibration Not Required" or "Inactive" labels in letter format to Head, EMB, Support Division. This letter request must contain nomenclature, model number, serial number, manufacturer and quantity and will specify either CNR or INACTIVE labels, as required.

(10) Submit an updated calibration requirements letter for any new item of test, measure and diagnostic equipment or any test, measure and diagnostic equipment which is not on the user's original calibration requirements letter. This letter will be submitted to the Head, EMB, Support Division listing the same information required by subparagraph 7d(9) above. No action can be taken to evacuate test, measure and diagnostic equipment until the contract amendment has been made.

(11) Familiarize themselves with TI 4733-35/9 with regard to radiac instruments, ensure that the calibration for those instruments is current, and ensure that the intended functions can be performed.

e. Head, Electronics Maintenance Branch, Support Division, (Hd, EMB, Spt Div) Responsibilities

(1) In the absence of a calibration facility, the responsibilities of the Hd, EMB, Spt Div, is primarily that of coordination and control as the MCDEC calibration control point.

(2) Based on the report of TMDE provided by the using/ owning activity heads, budget for the support of the Command Calibration Program.

(3) The Hd, EMB, Spt Div, will coordinate with the MCDEC Supply Department to contract for required calibration support from commercial sources, and calibration facilities of the Marine Corps and other services.

(4) Maintain a current edition of Metrology Requirements List (METRL) with appropriate changes to be used in the coordination and control of the MCDEC Calibration Program.

(5) Establish procedures for evacuation and acceptance of TMDE in accordance with the current editions of MCO P4790.2 and TM 4700-15/1.

8. Equipment Evacuation. Evacuation is the controlled process of moving equipment which cannot be repaired, modified, serviced, or utilized at an activity, to the activity which can accomplish the necessary maintenance or redistribution.

a. Equipment evacuation is normally the responsibility of the owning activity. When evacuation is beyond the capability of the owning activity, evacuation will be accomplished by the supporting maintenance activity.

b. Using activities will evacuate equipment requiring repairs beyond the authorized capability to the supporting maintenance activity within 48 hours of detection of the fault or failure.

c. Equipment undergoing repair at a maintenance activity will not be automatically evacuated to a supporting maintenance activity when a predetermined period has passed. Each item must be individually screened and the determination made to hold or evacuate the item based on the following criteria:

(1) Owing activity's requirement (urgency of need) for the item.

(2) Acceptability of supply status on parts needed to repair the item.

(3) Can a replacement item be provided by the supply system faster than repair can be accomplished?

d. Unserviceable equipment will be evacuated to the appropriate disposal activity in accordance with the procedures established in the current edition of MCDECO P4400.1.

## 9. Limited Technical Inspection (LTI) Responsibilities

a. Responsibilities by maintenance levels for conducting LTIs are established below based on the required indicated transactions:

- (1) Excess Table of Equipment (T/E) - Organizational.
- (2) Excess Secondary Repairables - Intermediate Maintenance Activity.
- (3) Receipt of T/E Assets - Organizational (Quality Reliability Report Submission).
- (4) R&E Program Retrograde/Receipt - Intermediate Maintenance Activity, as may be required, with Organizational Representative.
- (5) Receipt of Newly Introduced Equipments into Marine Corps Inventory - Intermediate Maintenance Activity, as may be required, with Organizational Representative. The unit to which the equipment will be assigned will open an ERO requesting the IMA to perform the acceptance LTI.
- (6) Investigations - Organizational/Intermediate Maintenance Activity, as may be required.
- (7) Temporary Loan of Equipment - Organizational.
- (8) Condition Code Assignment - Intermediate Maintenance Activity.

b. The above activity responsibilities apply to all equipment commodities, with the exception of motor transport, engineer, garrison mobile and optical equipment, which will be performed at the intermediate level. In addition, the Audiovisual Maintenance Repair Facility will perform all LTIs required on audiovisual equipment.

c. All prefire inspections for small arms weapons destined for Marine Security Guard posts at worldwide embassy locations will be conducted by the Ordnance Maintenance Branch, Support Division (IMA Repair Facility). All other pre-fire inspections of small arms will be conducted by organizational armorers (MOS 2111) in accordance TI-8005-24/20C.

d. When the Head of an Intermediate Maintenance Activity shop has determined that an organizational maintenance activity does not possess adequate maintenance resources to thoroughly perform LTIS, this Headquarters (Code C 049) will be notified in writing.

e. Organizational maintenance shops with "overflow" maintenance, personnel shortages, etc., may request assistance to conduct LTIs from the Intermediate Maintenance Activity when justified.

f. Standard LTI forms from motor transport and engineer equipment have been prepared as guides and are located in TM 4700-15/1. When standard forms do not exist, local checklists may be prepared using appropriate technical manuals as guides.

g. Exceptions to the above guidelines will be addressed on a case-by-case basis through this Headquarters (Code C 049).

## 2005. PERFORMANCE OF MAINTENANCE SERVICES

1. General. The maintenance of all equipment assigned to activities of this Command will be conducted in compliance with all applicable current directives and technical publications. The need for detecting and reporting evidence of abuse or neglect and taking immediate corrective action will be emphasized to all hands. The emphasis placed on proper maintenance of equipment at every level of command and supervision will directly affect the accomplishment of required maintenance.

### 2. Organizational Maintenance

a. Activity heads will ensure that preventive and corrective maintenance within authorized capabilities is accomplished on assigned equipment.

b. Equipment requiring maintenance that exceeds the authorized capabilities of the activity will be expeditiously evacuated to the supporting maintenance activity.

c. Maintenance services will be integrated with other operational requirements of the activity.

d. Equipment having no PM schedule established by manuals will be maintained based on the PM schedule requirements of similar equipment items and as established by the Commanding Officer/Activity Head.

### 3. Support Maintenance

a. Support maintenance for all activities is provided by the activities designated in figure 2-1. Equipment requiring maintenance that exceeds the capabilities of the using activity will be delivered to the appropriate support maintenance activity.

b. The locations of the designated support maintenance activities are as follows:

- (1) Electronics Maintenance Branch, Building 2043.
- (2) Motor Transport Maintenance Branch, Building 2013.
- (3) Ordnance Maintenance Branch, Building 3045.

- (4) Office Machine Repair Section, Building 2009.
- (5) Maintenance Division, Facilities Department, Building 3252.
- (6) Guadalcanal Area Maintenance (Construction/Engineer Equipment), Building 27054.
- (7) Training and Audiovisual Support Center Repair, Operations Department, Building 2048.
- (8) Still Photo Branch, Operations Department, Building 2009.

c. Equipment evacuated to a supporting maintenance activity will be accompanied by an Equipment Repair Order (ERO) or Shop Repair Order (SRO) properly completed in accordance with Appendix D of this Order and the current edition of TM 4700-15/1.

d. Reimbursable Maintenance. Reimbursable maintenance is maintenance performed on equipment for which the owning activity must transfer the necessary funds to the supporting maintenance activity. Reimbursable maintenance is provided for equipment which is owned by activities other than those activities listed in MCDEC T/O 7400, on a case-by-case basis. The following procedures will be utilized to request reimbursable maintenance:

(1) The activity head who owns (holds) the equipment shall establish liaison with the appropriate support maintenance activity head to determine if required support can be provided.

(2) If the required support can be provided, submit the equipment to the maintenance activity in accordance with the procedures set forth in paragraph 2005.4.

(3) The maintenance activity will examine the item to determine the estimated cost of repairs, in accordance with the current editions of MCO 4710.8 for engineer equipment, and MCO 11240.84 for tactical motor transport equipment, and will notify the owning activity of this estimate utilizing the format in the current edition of MCO 4710.8. No repair will be performed, nor will parts be ordered at this time.

(4) The head of the owning activity will decide whether repairs are to be completed or whether the unrepaired equipment is to be retrieved.

(a) Equipment Repair Orders closed out at the request of the owning activity head shall be annotated "equipment returned not repaired, at the activity head's request", and shall be signed by the activity representative retrieving the equipment.

(b) Activity heads desiring to have reimbursable repairs completed will request transfer of the required funds, in accordance with instructions contained in the current edition of MCDECO P7000.1, to the Supporting Maintenance Activity.

(c) The Assistant Chief of Staff, Comptroller will forward NAVCOMPT Form 2043 to the head of the supporting maintenance activity when the transfer of funds has been completed.

(d) Upon receipt of NAVCOMPT Form 2043, required parts will be placed on order and the necessary repairs accomplished.

e. Contract Maintenance. Maintenance support beyond the capabilities of Command activities may be provided for by contract maintenance.

(1) Contract maintenance support may be provided through the following means:

(a) Commercial Contract. Support obtained from commercial sources.

(b) Intraservice Support. Support obtained from another Marine Corps activity.

(c) Interservice Support. Support obtained from another service through an interservice support agreement (ISSA).

(2) Requests for contract maintenance support for common use items will be initiated by the activity head assigned responsibility in figure 2-1 for support maintenance for the commodity area/equipment type involved.

(3) Requests for contract maintenance support for one of a kind or special use items will be initiated by the activity head holding the item after ascertaining that support cannot be provided by or through the appropriate support maintenance activity.

f. Contact Team Maintenance

(1) There are times when it is not possible or practical to deliver equipment requiring repair to the supporting maintenance activity. Such is the case when equipment is permanently installed in a fixed location or when a quantity of a type equipment in an activity requires the accomplishment of the same maintenance action, such as modification. In such cases, it is more practical to provide maintenance support at the equipment location by use of a contact team.

(2) Contact teams will be task-organized to provide the support required. It may consist of one or more persons equipped with the necessary test equipment and/or tools required to accomplish the specific task requested.

(3) The decision to utilize a contact team will be made by the head of the supporting maintenance activity after considering such factors as transportation costs, the feasibility of moving the equipment, workspace in the shop and the specific situation. Requests for contact team support will be made to the head of the supporting maintenance activity telephonically. Documentation (use of an ERO) is required where the support is provided. Assistance to be provided the contact team will be determined jointly by the maintenance activity head and the commodity manager of the using activity.

#### 4. Use of Equipment Repair Order (ERO)/Equipment Repair Order Shopping/Transaction List (EROSL)/Shop Repair Order (SRO)

a. An ERO, NAVMC 10245, or SRO, NAVFAC 9-11240/3A, whichever is appropriate, shall be completed for each item of equipment on which second through fourth echelon repairs are required or are being performed, with the exception of facilities related equipment, e.g., appliances, air conditioners, fans, buffers, lawn mowers, on which the maintenance is performed by the Maintenance Division, Facilities Department. "D" TAM Garrison Mobile Equipment (GME) will be maintained as "G" TAM items utilizing Chapter 9 of TM 4700-15/1E. The Assistant Chief of Staff, Facilities, shall specify the form to be used for facilities related equipment identified above.

b. The ERO will be used to request and record the performance of equipment maintenance of all tactical ground equipment within an activity's organic maintenance capabilities. Maintenance personnel will use the ERO to evacuate equipment to a higher echelon of maintenance, or where either repair parts or resources are used in the performance of equipment maintenance. The ERO will not be used to request or record either operator maintenance (first echelon) or depot level maintenance (fifth echelon). It may be used by first echelon to order SL-3 components. Appendix D contains detailed instructions for the preparation and completion of the ERO.

c. The EROSL will be used in conjunction with an ERO to requisition, receipt for, and record partial issues of repair parts and secondary reparables associated with ground equipment undergoing repairs. Appendix H contains detailed instructions for the preparation and completion of the EROSL.

d. The SRO shall be used for all garrison mobile (automotive, engineer and materials handling) equipment listed in the current edition of MCO 4440.27. Instructions for properly completing the SRO are contained in the current edition of TM 4700-15/1.

#### 5. Maintenance Priorities

a. Activity heads will assign priorities to EROs using the current edition of MCO 4400.16 as a guide. To provide activity

heads with the needed controls over equipment inducted into the maintenance cycle, activity heads shall submit a letter of authorization, with sample signatures, to the Commanding General (Code C 049) for those individuals designated to authorize the performance of equipment maintenance. Letters of authorization will indicate what urgency of need designators (priorities) the individuals designated may sign. Activity heads must personally review and sign all requests for maintenance bearing an urgency of need designator "A." Letters of Authorization must be kept current at all times to preclude rejection of work requests.

b. Equipment inducted into the maintenance cycle will be processed in chronological order by priority. This may require stopping work on a low priority ERO so that the necessary repairs may be made on a higher priority ERO.

c. Supporting maintenance activities will process equipment into the maintenance cycle utilizing the priority assigned by the owning activity head with the following categories of equipment priorities:

- (1) Security/Emergency Equipment. Priority 1.
- (2) Mission Essential Equipment. Priority 2.
- (3) Tactical Equipment. Priority 3.
- (4) Administrative Equipment. Priority 4.
- (5) Equipment Owned by Non-MCDEC Activities. Priority 5.

## 2006. RECORDS AND REPORTS

### 1. General

a. Maintenance records and reports provide the basis for the management of the activity equipment maintenance program. Their proper completion makes possible the analysis and evaluation of individual equipment performance and the activity's maintenance program.

b. Maintenance records and reports are managed in accordance with the current editions of MCO 5210.11 and MCO 5214.2.

### 2. Records

a. Maintenance records are maintained to provide a history of equipment maintenance requirements; to ensure the performance of required preventive maintenance; and to facilitate management decisions. Maintenance records are further classified as equipment records or maintenance resource records.

b. Equipment Records. Records required by the current edition of TM 470(5-1@/1 will be maintained on equipment held. Records for equipment for which no records are specified in the current edition of TM 4700-15/1 will be maintained in accordance with other applicable Marine Corps directives or, in the case of commercial equipment, in accordance with the manufacturer's instructions. If no Marine Corps requirement exists, activity heads shall establish records required to collect maintenance history/cost data and to record the accomplishment of preventive maintenance. Entries in equipment records will be made at the time of the maintenance action by the individual performing the action. Activity heads will establish procedures to ensure that individual equipment records reflect all maintenance actions performed by the owning and supporting maintenance activity.

c. Maintenance Resource Records. Maintenance resource records are those maintained in conjunction with individual resources. For example, completion of technical schools are recorded in an individual's service record; maintenance expenditures are recorded in accounting documents (e.g., the SRO or ERO); and requisitions related to equipment maintenance in supply records. The primary role of maintenance in the upkeep of those records is to ensure appropriate, timely input to the activities maintaining the records. The creation of separate maintenance resource records within the maintenance section of an activity, which duplicate records maintained elsewhere within the activity will be held to the minimum required for effective management.

d. Local Records. Local records are those maintained by an activity in addition to those required by higher authority. Since the maintenance of any record requires the expenditure of personnel resources, the use of local records shall be kept to the minimum necessary to satisfy definite information requirements of the activity. Such records will be established only when it can be demonstrated that existing records fail to satisfy requirements. If it is determined that a unit record would be beneficial to other activities, activity heads shall submit copies of all forms used and an explanation of the record keeping system/requirement to the Commanding General (Code C 049) for review.

e. Records Review. Activity heads will periodically, not less than annually, review all records being maintained to ensure that a requirement exists for their continued use. Particular attention should be given to local records. Recommendations for improvements to records required by higher authority will be submitted through the chain of command to the requiring activity head. Recommendations submitted to the Commandant of the Marine Corps shall be submitted via the Commanding General (Code C 049).

### 3. Reports

a. Maintenance reports provide data and information for use in determining policy; planning, controlling, evaluating operations

and performance; and preparing reports for higher authority. Format and frequency of reports are determined by the specific requirements of the requiring activity head.

b. Activity heads will ensure that local reports are required only to meet definitive requirements, that they are economically designed, that the information cannot be obtained from an existing report and that they are cancelled when no longer justified.

c. Recommendations for improvements will be submitted via the chain of command to the headquarters requiring the report. Recommendations concerning reports required by the Commandant of the Marine Corps will be submitted via the Commanding General (Code C 049).

#### 2007. SAFETY

1. Activity heads are responsible for ensuring that appropriate procedures are established within their activities to implement the requirements of the current edition of MCDECO P5100.1 that apply to maintenance operations and the provisions of NAVMC 2692 that apply to unit safety program management.

2. Maintenance supervisors are responsible for the prevention of mishaps involving personnel, equipment and property within their control. Accordingly, in the course of their day-today operations they will survey their assigned work areas to detect and correct recognized unsafe conditions or practices. Where the necessary corrective action is beyond the immediate supervisor's assigned authority, the unsafe condition or practice is to be reported to the next higher authority for action.

3. The safety manager is responsible for providing technical guidance and assistance to activity heads concerning matters of occupational safety and health and may be reached at 640-2866. Requests by supervisors for occupational air sampling, noise surveys" and other appropriate environmental testing are to be directed to the safety manager who will coordinate appropriate action with the Environmental Health Office, NMCL. In addition, the Command Safety Office maintains a comprehensive library of safety manuals and guidance materials. Maintenance supervisors are expected to utilize these resources in meeting their safety responsibilities.

4. All maintenance personnel are responsible for-

a. Correcting safety hazards in their immediate work areas that are within the limits of their assigned authority to correct.

b. Promptly reporting to their immediate maintenance supervisor those hazards for which the necessary corrective action is

beyond their assigned authority to correct as required in the current edition of MCDECO P5100.5.

c. Maintaining their individual work areas free from debris, spills, idle stock and equipment or other tripping, sliding or striking against hazards.

d. Storing all equipment, tools; especially sharp tools, in a safe place when not in use.

e. Using all machine guards, where such guards are required.

f. Adhering to all special instructions provided them by their immediate supervisor.

5. General Safety Requirements Applicable to Maintenance Operations. The following list is not all inclusive, but is provided for maintenance supervisors as a quick reference to those requirements considered to be most important in maintenance operations.

a. All designated hazardous noise sources/areas are to be posted or labeled; personnel in those areas are to wear appropriate hearing protection; and personnel routinely exposed to noise sources are to be enrolled in the Biological Monitoring Program outlined in the current edition of MCDECO 6260.2.

b. A Safety Material Data Sheet must be on file in shop areas for each potentially hazardous chemical (e.g. solvents, flammables, caustics, etc.) used in the shop operation; the container must be labeled as to contents; and personnel instructed in the safe use, handling and storage of such chemicals as outlined in the current edition of MCO 5100.25.

c. Maintenance supervisors are to ensure that personnel engaged in potentially health hazard work (e.g. spray painting, plumbing, welding, degreasing, etc.) or regularly exposed to potentially hazardous substances/sources (e.g., noise levels above 85 dbA, solvent vapors, metal fumes or dusts, asbestos, etc.) are enrolled in the Biological Monitoring Program outlined in the current edition of MCDECO 6260.1.

d. Personnel will wear the appropriate protective equipment for the task or operation being performed as required in the current edition of MCDECO P5100.1.

e. Maintenance supervisors shall ensure that all personnel assigned to use mechanized equipment have received sufficient instruction in the safe operation of that equipment. In addition, the supervisor shall periodically observe personnel using mechanized equipment to ensure that it is operated in accordance with applicable safe operating instructions.

f. Maintenance operations such as welding, degreasing, sand blasting, spray painting, battery charging, electroplating, sanding and grinding require adequate ventilation. Specific requirements can only be determined by a thorough evaluation of the operation and assistance should be sought from the Safety Manager.

g. Supervisors shall not permit personnel to remove any pipe-lagging using routine methods unless it has been determined that the lagging does not contain asbestos. Where it is unknown or has been determined that the lagging contains asbestos, specific removal procedures must be established and implemented to ensure neither maintenance nor non-maintenance personnel are exposed to unsafe levels of asbestos. Supervisors should contact the Safety Manager for guidance in establishing specific removal procedures.

h. Supervisors shall not permit personnel to enter confined spaces (e.g., sewers, manholes, fuel tanks, etc.) unless they have determined that such spaces are safe for entry to appropriate precautions are taken. Technical assistance in this regard may be obtained from the Safety Manager.

i. Fire bills, fire alarms, fire extinguishers, fire exits and fire station assignments shall be clearly marked. The "fire" telephone number shall be posted near each fire station and telephone location.

MAINTENANCE MANAGEMENT SOP

CHAPTER 3

SUPPLY AND FISCAL SUPPORT

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 3

### SUPPLY AND FISCAL SUPPORT

#### 3000. SUPPLY SUPPORT

##### 1. General

a. Effective maintenance cannot be accomplished without effective supply support. An effective maintenance program facilitates supply support. If maintenance is accomplished on a scheduled basis and necessary parts are placed on order when required, the supply system will readily respond to the requirement. Equipment allowed to deteriorate to the point where trouble has become compounded increases the parts requirements proportionately and increases the response time of the supply system.

b. Maintenance at any echelon cannot be accomplished without adequate supply support. Ignorance of proper procedures; failure to ensure timely requisitioning; improper accounting, storing and issuing parts/material, all contribute to the breakdown of the supply maintenance chain. Follow-up action, when required, is as much a function of maintenance as installation of the part when it is obtained.

c. To facilitate supply support, preventive maintenance services on equipment should be scheduled over the entire period of the requirement. For example, quarterly PMs should be spread over the entire quarter. This not only aids maintenance by providing an even workload, but enables the supply system to capture valuable usage data, thus allowing stockage of the parts/ material used in providing the service. Stockpiling of parts in the maintenance facility and obtaining parts from other sources (scrounging) and not reporting usage, does not create usage data and results in the supply system being unable to provide the part readily when the stockpile or other sources are exhausted. The supply system will support the maintenance effort if maintenance personnel provide the required input documentation and practice supply discipline.

2. Supply Coordination. Coordination between maintenance and supply activities is essential to the maintenance effort. Open and active communication channels must exist between maintenance activities and the supporting supply agency. The supply officer must be aware of the problems of the maintenance officer, and the maintenance officer must work closely with the supply officer and ensure that proper procedures are used and that supply discipline is practiced in the maintenance shop. Supply discipline is characterized by

a. Only required material is requested.

- b. Proper forms and procedures are used to request the required material.
- c. Material is properly used.
- d. Material not used is returned promptly to the supporting supply agency.
- e. Demand history is recorded for items obtained from sources outside the supply system.
- f. Outstanding requisitions are reviewed biweekly, as a minimum, and the continued need for the material is validated.

### 3001. REPAIR PARTS ACQUISITION

1. Repair parts will not be ordered for any echelon of maintenance that exceeds the authorized capability of the activity. The echelon authorized to remove, replace and repair a part/component is indicated by the third and fourth digit of the source, maintenance and recoverability (SMR) code. The third digit identifies the echelon that may remove and replace the part or component. The fourth digit identifies the echelon that is capable of complete repair. Source, maintenance and recoverability codes are listed and defined in all SL-4s, and appropriate "P" type technical publications/ repair parts manuals.
2. In the activities listed below, required repair parts will be requisitioned through the activity supply section. This will allow the accumulation of usage data and the stockage, if justified, of repair parts in the activity operating stocks.
  - a. Headquarters and Service Battalion.
  - b. Headquarters, Education Center - Provides supply support for Headquarters, Education Center, Command and Staff College, Amphibious Warfare School, Extension School and Computer Sciences School.
  - c. Communication Officers School.
  - d. The Basic School.
  - e. Officer Candidates School.
  - f. Weapons Training Battalion.
  - g. Marine Corps Air Facility.
3. Activities not listed in paragraph 3001.2 above, will obtain required repair parts from issue points, established in accordance

with the current edition of MCDECO P4400.1, or by requisitioning the parts through Materiel Division, Supply Department.

a. Issue points have been established as indicated below:

- (1) Issue Point 01, Self Service, Building 7.
- (2) Issue Point 20, POL, Building 3036.
- (3) Issue Point 60, General Maintenance, Building 3036.
- (4) Issue Point 61, Engineer/Communication-Electronics, Building 3164.
- (5) Issue Point 62, Ordnance/Motor Transport, Building 2013.

b. Items not stocked in the issue points may be obtained by submitting requisitions to the Director, Materiel Division, Supply Department in accordance with the current edition of MCDECO P4400.1.

4. Priorities will be assigned to requisitions in accordance with the instructions contained in the current editions of UM 4400-15 and MCO 4400.16. The Commandant of the Marine Corps has granted a waiver to this Command and has authorized use of Urgency of Need Designator (UND) "A" and Force Activity Designator (F/AD) "III" in support of tracked vehicles, tactical mobile communication equipment, and mobile electric power generator source equipment. The proper priority is determined by combining the Command's force activity designator with the urgency of need. The requisition priority must be equal to or lower than the priority assigned to the ERO it supports. When an ERO is opened on an item of tactical ground equipment and it is determined that repair parts are required, an EROSL will be established by the maintenance section, and forwarded to the activity's supply section. The EROSL will be used within activities having second through fourth echelons of maintenance as the controlling document to order, receipt, account for and issue of repair parts. The current edition of TM 4700-15/1 gives detailed instructions on the use of the EROSL.

5. All EROs on equipment in a "Short Parts" status must be supported by outstanding requisitions containing valid document numbers.

6. To the maximum extent possible, all parts required to repair an item of equipment will be requisitioned at one time to preclude prolonged deadline time.

### 3002. REPAIR PARTS CONTROL

1. All repair parts received by a maintenance activity will be signed for upon receipt. Equipment Repair Order Shopping Lists will be initialed by the individual drawing the item(s).

2. Repair parts issued to a maintenance activity will be for immediate use (installation on an end item).

3. If more than one repair part has been requisitioned for an item of equipment and it is impractical to install the parts individually as they are received, a layette will be established either by the supporting supply agency or in the maintenance shop. Material in the layettes will be validated at least biweekly. A copy of the EROSL will be used to account for repair parts in the layettes, annotations will be made on the EROSL indicating date parts received, quantity and initials of the responsible individual. All parts required will be accumulated in the layettes as they are received. When all parts have been received, the maintenance supervisor will be informed so that the equipment may be placed on the work schedule. Access to the area where layettes are stored will be controlled to eliminate the possibility of parts being used on equipment other than that for which they were ordered.

4. All echelons of maintenance are required to report use of parts obtained from sources other than normal supply channels. While the primary source of parts is the supply system, parts may become available from other sources; e.g., authorized cannibalization or disposal activities. To create usage data, use of these parts must be reported to the supporting supply agency/section.

5. Excess repair parts received from any source will be turned in to the supporting supply agency/section to facilitate proper accounting. Prior to turn-in, parts will be properly identified by national stock number (NSN). Repair parts will not be stockpiled in maintenance sections. "Goody boxes" will not be condoned.

### 3003. SECONDARY REPARABLE ITEMS PROGRAM

1. General. The secondary reparable item program, established by the current edition of MCO P4400.82, serves to provide a pool of serviceable components readily available for direct exchange of unserviceable like components and subsequent repair by a supporting maintenance activity. Such a pool (float), MMFAH7 has been established within Materiel Division, Supply Department, to support the Command maintenance effort.

2. Eligibility for Inclusion into the Float. Eligibility of an item for inclusion in the secondary reparable items program is determined by the recoverability code (the fifth digit of the SMR code) assigned. All "D" and "L" coded (depot reparable items) are automatically eligible for inclusion in the float. Non-depot reparable items (recoverability codes H, F and 0) may be included in the float if deemed necessary by the Commanding General.

#### 3. Float Allowances

a. Allowances for "D" and "L" coded items are determined initially during the provisioning process. During the initial

usage period (2 years), this allowance remains fixed and cannot be changed. Subsequent to the initial usage period, allowances are based on usage data and are computed in accordance with the instructions contained in the current edition of UM 4400-15.

b. No initial allowance period is established for non-depot reparable during the initial usage period. Subsequent to this period, allowances for non-depot reparable may be established. Computation of allowances will be in accordance with the instructions contained in the current edition of UM 4400-15.

c. Annually, the float holder, MMFAH7, will publish a catalog listing all items contained in the float and the established allowances. Modification to the allowances established can only be made if substantiated by valid usage data. Revisions to the catalog will be published as determined by the float manager.

4. The maintenance float, MMFAH7, is the sole source of supply for all "D" and "L" coded items, and for those "H," "F", and "O" items included in the float catalog.

a. Requirements for all "D" and "L" coded items, and the "H", "F", and "O" coded items included in the float catalog will be submitted to the float holder utilizing the procedure set forth in the current edition of MCO P4400.15.

b. Requirements for "H", "F", and "O" items not listed in the float catalog will be submitted through normal supply channels.

#### 5. Operating Procedures

a. Procedures governing the operation of the float are set forth in the current editions of UM 4400-15 and MCDECO P4400.1. The float holder will ensure those procedures are strictly adhered to.

b. In addition to the instructions provided in UM4400-15, the below procedures will be used when it is determined that a float transaction requirement exists.

##### (1) Owning Activity

(a) Open a second echelon ERO which will reflect history status to the point where it is determined that a float transaction is required.

(b) Prepare a DD-1348 (Float Transaction Card). Leave the document number field blank.

(c) Deliver the unserviceable item along with the DD-1348 to the appropriate Intermediate Maintenance Activity. Ensure all second echelon maintenance/service has been completed prior to turn-in.

(d) Have the Intermediate Maintenance Activity certify on the DD-1348 that the item has been accepted for turn-in.

(e) Deliver the DD-1348 and a third echelon ERO partially completed by the Intermediate Maintenance Activity to maintenance float.

(f) Draw a replacement item from maintenance float. if an item is not available for issue, obtain a partially completed copy of the DD-1348 for back order purposes.

(g) Once a replacement item is received from maintenance float, complete required maintenance action and close out the second echelon ERO.

## (2) Intermediate Maintenance Activity

(a) Receive from the owning unit unserviceable float items. Ensure all second echelon maintenance/service has been completed prior to acceptance.

(b) Certify on the DD-1348 that the unserviceable item has been accepted from the owning unit.

(c) Open a partially completed ERO for delivery to maintenance float.

(d) Commence repair of the item when the completed ERO is returned from maintenance float.

(e) Ensure that all modifications are applied prior to return to the float.

(f) Notify maintenance float when repairs have been completed. Prepare letters o@ unserviceability when repairs cannot be accomplished.

## (3) Maintenance Float

(a) Receive from the owning activity the original copy of the DD-1348 and a partially completed ERO.

(b) Issue to the owning activity a replacement item, if available.

(c) If an item is not available for issue, complete the required documentation for the owning activity to indicate the item is on back order.

(d) Complete the partially completed ERO and return it to the Intermediate Maintenance Activity.

(e) Pick up items repaired by the Intermediate Maintenance Activity and return them to float. Support Division will prepare a recoverable item report (WIR) for those items being "coded out", sending an information copy to the owning activity/float manager.

(4) All "D" and "L" coded items requiring maintenance above that authorized in the using activity will be turned in to the float holder in accordance with the procedures set forth above, whether they are listed in the float catalog or not.

(5) All "H", "F", and "O" coded items that are not listed in the float catalog requiring maintenance above that authorized in the using activity will be turned in to the supporting maintenance activity utilizing the procedures set forth in paragraph 2005.4.

#### 3004. RECOVERABLE ITEMS PROGRAM

1. The purpose of the Recoverable Items Program is to ensure recovery, evacuation and disposal of principle reparable items which are excess to an activity's requirements; require repair that is beyond the capability of the supporting maintenance branch; or not economically reparable when the condition of the equipment and the asset position of the Marine Corps are considered. The program is explained and procedures for its implementation are set forth below and in the current edition of MCO P4400.82.

#### 2. Responsibilities

##### a. Intermediate Maintenance Activities

(1) Determine the condition of the item to be reported in accordance with the criteria established in the current editions of MCOs P4400.82 and 4710.8.

(2) Conduct a limited technical inspection (LTI) of the item to be reported.

(3) Submit to Support Division MMO, a request for WIR along with a copy to the LTI.

(4) Maintain security for the item until disposition instructions are received from MCLB, Albany on the WIR.

(5) Maintain open EROs and outstanding requisitions for reparable items to the end item until disposition instructions are received.

(6) Upon receipt of the disposition instructions from MCLB, Albany, provide the using unit with a copy of the message (the MMO will stamp the message "LUP" (Letter of Unserviceable Property)).

The LUP is the Property Control Officer's (PCO) authorization to requisition a replacement item.

(7) If disposal or evacuation instructions are received, EROs may be closed; requisitions cancelled; and, if not already issued, a LUP will be forwarded to the owning organization. Any repair parts received for the end item disposed/evacuated will be redistributed to satisfy demands for like repair parts or other open EROS. If no other demands exist for the particular repair part, the item will be rolled back to the appropriate source of supply.

(8) When evacuation instructions are received, cause the item to be turned over to the organization responsible for transportation in sufficient time to allow the retrograde equipment to reach the designated Remote Storage Activity (RSA) as follows; CONUS Activities - within 30 days of receipt of disposition instructions from the MCLB, Albany, unless otherwise advised by the MCLB, Albany.

(9) Ensure that the retrograde equipment is complete with the appropriate end item components.

(10) In the event the preceding timeframes cannot be met or deviation from the specified timeframes is required, the MCLB, Albany, will advise by message, stating why the retrograde item was not shipped.

(11) In the event disposition instruction "i" (retain and repair) is received from the MCLB, Albany, the maintenance unit will submit a supply assistance request in accordance with the current edition of MCO P4400.123.

b. Owning Organization

(1) All open EROs and outstanding requisitions for repair parts to the end item will be maintained until the letter of unserviceable property is received from the maintenance facility.

(2) Requisitions may be cancelled and EROs closed when the letter of unserviceable property is received. Repair parts received for the end item which has been declared unserviceable will be redistributed to satisfy demands for like repair parts on other open EROS. If no other demands exist for a particular repair part, the item will be rolled back to the source of supply.

c. Support Division

(1) Upon receipt of an LTI from the maintenance activity, the Support Division MMO will stamp "Received by" and affix his/her signature on a copy of the LTI and provide a copy to the maintenance activity (this is not to be construed as authorization to requisition a replacement item).

(2) A Recoverable Item Report (WIR) will be prepared (message form) by the MMO within 24 hours of receipt of the request for WIR. Upon obtaining the signature of the releasing authority, the message will be delivered to the Communication Center for transmission.

(3) Upon receipt of a "Has Been Sent" copy of the message from the Communication Center, the Support Division MMO will:

(a) Provide a copy to the PCO.

(b) Provide a copy to the maintenance activity.

(c) Place a copy of the "Has Been Sent" copy in the pending file along with a copy of the request for WIR.

(4) Upon receipt of disposition instructions from the MCLB, Albany, the MMO will:

(a) Forward a copy to the PCO.

(b) Forward a copy to the maintenance activity.

(c) Retain a copy in WIR file (close out WIR file at this time. If disposition code "H" is received, line out WIR and/ or D7P on file folder and annotate B7J).

(5) Upon receipt of a DD-1348 (shipping mat) from the PCO, the Support Division MMO will:

(a) Retain one copy in WIR file (line out WIR on file folder and annotate D7P).

(b) Forward a copy to the maintenance activity.

d. Property Control Office. Upon receipt of disposition instructions from the Support Division MMO, the PCO will:

(1) Requisition a replacement item in accordance with appropriate directives.

(2) Provide the Support Division MMO with two copies of the DD-1348.

(3) Prepare the defective item for shipment in accordance with the instructions contained in the disposition instructions.

(4) Deliver to the Defense Property Disposal Officer (DPDO), as appropriate.

3005. VALIDATION OF REQUIREMENTS

1. General. The responsibility of maintenance in obtaining necessary repair parts does not end with the submission of a requisition to the supporting supply agency/section. Maintenance managers/ supervisors must ensure, through coordination with supply personnel, that the requisition is properly processed and filled or passed through supply channels. Continuing coordination is required to obtain supply status. Supply status must be analyzed by maintenance personnel to determine if the status provided will allow for the accomplishment of the required maintenance in sufficient time to satisfy the priority/required delivery date established by the equipment owner/user. Validation will be accomplished on a weekly basis. Validation of "parts received" and "parts required" will be accomplished by matching the EROSL with the parts physically on hand in the ERO bin.

2. Validation/Reconciliation Procedures

a. The validation process should begin at the time parts are first ordered to repair an item of equipment. Maximum effort should be made at that time to order all parts required to return the equipment to operating condition. Ordering only a portion of the required parts, installing them upon receipt, and then discovering that additional parts are required only prolongs the time the equipment is deadline. After procedures are established to ensure all parts required are ordered as a result of initial inspection/examination of the equipment, the EROSL, associated with the ERO, becomes the basic document in the validation process between the maintenance activity and the unit supply section on a weekly basis.

b. Equipment Repair Orders in a "short parts" status will be reviewed every two weeks to ensure the parts requirement still exists. If parts have been obtained from another source; authorized cannibalization, disposal, etc., outstanding requisitions for those parts will be cancelled.

c. After ensuring the validity of the requirements, the outstanding requisitions should be reconciled with the pending backordered requisition file/listing at the supporting supply agency/section. Latest status (and status date) received should be noted on the EROSL. Status should be analyzed to determine if it is still acceptable.

d. Validation by the supporting supply agency will be in accordance with the instructions contained in the current edition of MCDECO P4400.1.

3006. UNSATISFACTORY SUPPLY SUPPORT

1. Unsatisfactory supply support is defined as the inability of the supply system to provide the required parts or materials when

required. This condition normally results when the using activity indicates a need for the equipment for a continuing/pending operation; assigns a high priority to the ERO, and specifies a required delivery date for the equipment. Apparent unsatisfactory supply support will be determined only after a careful analysis of the supply status received. Each instance of apparent unsatisfactory supply support will be determined on its own merits considering all the factors involved.

2. After it has been determined by the maintenance officer/supervisor that the supply status received will result in an apparent case of unsatisfactory supply support, the maintenance officer/ supervisor will immediately contact the activity that submitted the equipment for maintenance. The supply status will be discussed to determine if it will, in fact, satisfy the activity's needs for the equipment, and if so, the using activity will be requested to modify the priority and/or required delivery date assigned to the ERO accordingly.

3. If it is determined that the using activity's needs have not changed and the status received is unsatisfactory, the supporting agency/section will be notified and requested to seek other local sources (i.e., other activities, issue points, etc.) to fill the requirement. If the requirement cannot be satisfied in this manner, the supporting supply agency/section will be requested to obtain the part, if practical and possible, from the local commercial sources in accordance with the instructions contained in the current edition of UM 4400-15.

4. If all attempts to obtain the required parts fail or are considered uneconomical or impractical, evacuation of the equipment will be considered utilizing the criteria established in paragraph 2004.8. It must be remembered that if a maintenance activity cannot obtain the required parts, it can be assumed that the supporting maintenance activity will also be unable to obtain the parts. Evacuation due to unsatisfactory supply support must, therefore, be a carefully considered measure.

### 3007. PREEXPENDED BINS (PEBS)

1. Preexpended bins may be established at any activity performing maintenance or repair of equipment. Items to be stocked in PEBS must be authorized, in writing, by the commanding officer or activity head. Criteria for inclusion of items in PEBS is contained in the current edition of UM 4400-15.

2. Coordination will be effected between maintenance activities and the supporting supply agency/section in selecting the items to be stocked in the PEB and the controls that are to be exercised in their use.

3. A quarterly item-by-item review will be conducted upon receipt of the ML-MC microfiche.

3008. TOOL KITS, SETS AND CHESTS

1. Inventories of tool kits, sets and chests will be conducted utilizing the SL-3 component list or SL-3 extracts for the kits, sets or chests. When a component list or SL-3 does not exist for a kit, set or chest, the Commander/Section Head/OIC will establish a component list and inventory the kit, set or chest accordingly. (See Appendix D of the current edition of MCO P4790.2.)
2. Tool kits, sets or chests issued to individuals with locks and secure storage areas will be inventoried quarterly. All inventory forms will be signed by the individual conducting the inventory, the individual's supervisor, and the date of inventory. Inventories of kits, sets, or chests will be conducted by the individual to whom the equipment is issued or by an individual designated by the responsible officer. Discrepancies noted (i.e., missing or damaged components) will be resolved in accordance with the provisions of the current editions of MCO P4400.19 and MCDECO P4400.1.
3. Tool kits, sets and chests held in activity tool rooms from which tools are issued temporarily to mechanics on a recurring basis will be inventoried monthly by an individual other than the tool room custodian, designated by the responsible officer.
4. Tool kits, sets and chests held in activity tool rooms/supply sections will be inventoried annually in conjunction with the annual physical inventory. The original of the inventory checklist will be retained in the activity files and a copy placed in the kit, set or chest. The kit, set or chest will then be banded or locked to preclude unauthorized use/removal of the tools contained therein. Copies of all inventory checklists will be maintained on file for one year. Appendix D of MCO P4790.2 describes the tool control program and the responsibilities of the responsible officer.
5. The requirement for journeyman civilians to provide the basic tools of their trade is explained in the current edition of MCO P12000.7.

3009. FISCAL SUPPORT

1. General. Adequate fiscal support is vital to the maintenance effort. Funds are required to purchase required parts, materials, and/or services. Failure to allocate sufficient funds for management precludes the accomplishment of required preventive and corrective maintenance services, resulting in increased deadline of equipment, and ultimately, the inability of the activity head to accomplish the assigned mission.
2. Budgeting for Maintenance. Annually, during the second fiscal quarter, activity heads are required to develop budget estimates for their activities for the current fiscal year, the coming

budget year, and the budget year plus one. Activity heads will ensure that maintenance managers participate in the development of the budget and that the requirement for maintenance related funds are included in the operating and maintenance budget estimate. Data required to support the estimated maintenance expenditures can be obtained by reviewing equipment records and supply records to determine past expenditures for maintenance services and parts. A valid estimate of the funds required for maintenance can be obtained by projecting past expenditures into future operations and by taking into consideration the mission and the equipment to be supported (increased age of equipment and the introduction of new equipment).

3. Utilization of Maintenance Funds. The expenditure of funds allocated for equipment maintenance will be monitored closely by maintenance and maintenance management personnel to ensure effective utilization. This can be accomplished by:

a. Providing continuing attention and emphasis to the accomplishment of preventive maintenance to preclude the necessity for more costly corrective maintenance.

b. Reviewing maintenance procedures to ensure economy of operation.

c. Reviewing equipment records to detect repeated failures. Repetitious failures may be indicative of improper or incomplete maintenance. If the same problem recurs frequently and is corrected by replacing the same part each time, the indication is that maintenance personnel are treating the symptom rather than finding the true underlying cause of the fault.

d. Establishing effective control mechanisms for recording the expenditures of maintenance funds.

#### 3010. NON-FMF ALLOWANCE LISTS

1. Certain types of equipment and supplies are required for the day-to-day operations of activities which do not have allowances established by higher headquarters and do not lend themselves to the generation of usage data. The current edition of UM 4400-15 outlines the four categories and their contents.

2. Activity heads are requested to establish and approve allowances (non-FMF allowance lists) for these types of material. Chapter 2 of UM 4400-15 contains procedures and formats to be followed.

MAINTENANCE MANAGEMENT SOP

CHAPTER 4

TRAINING

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 4

### TRAINING

#### 4000. REQUIREMENT

1. Effective maintenance cannot be accomplished by untrained personnel. Although the majority of maintenance personnel receive formal school training and are assigned a MOS upon completion of school, this does not, in itself, make them instantly qualified as experts in their respective fields. The instruction received provides the basis for developing into qualified mechanics/technicians. Expertise is gained through experience and by application of the principles learned under the supervision of more qualified (experienced) mechanics/technicians.

2. Training provided cannot be limited to "technical" or "MOS" training. It is not sufficient for an operator to know only how to operate the equipment. Operators must also be trained in preventive maintenance requirements and techniques, use of technical publications, and supply maintenance procedures. Similarly, mechanics/technicians must receive training on equipment operation, proper maintenance techniques, use of technical publications, supply and maintenance procedures and the fundamentals of the maintenance related programs explained in Chapter 8. Supervisors must receive training on the Marine Corps supply and maintenance systems; how to obtain and use supply and maintenance publications; and detailed instructions on the maintenance related programs explained in Chapter 8.

#### 4001. RESPONSIBILITY

1. Activity heads will ensure that two hours a month of maintenance and maintenance management training, as a minimum, is included in the unit training program. The accomplishment of this training will be recorded in the training records of individual Marines.

2. Activity commodity managers, maintenance officers, and maintenance management officers will plan and coordinate required training, to include the submission of requests for training quotas in courses of instruction in formal schools. The training plan shall be designated to satisfy both the current and planned needs of the activity and to prepare individuals to fill positions of higher grade and increased responsibility.

#### 4002. TRAINING METHODS

1. Various methods are available to accomplish required training. These include formal schools, locally established training programs

(informal schools), on the job training (OJT), cross training and correspondence courses.

2. Formal Schools. Formal schools are established by the Commandant of the Marine Corps, other services or civilian institutions. Training provided may be specialized, i.e., on a particular type/item of equipment, or it may cover all facets of an occupational specialty. Commodity managers and maintenance managers shall continually review available courses of instruction and request quotas, as needed, to ensure assigned personnel the benefit which can be gained by this type of instruction. Requests for formal schools will be addressed to the Assistant Chief of Staff, Operations. Requests for formal maintenance management related schools will be addressed to the Assistant Chief of Staff, Operations, via the Command Maintenance Management Officer.

3. Locally Established Training Programs. Locally established training programs are required to supplement the training provided by formal schools and, in many cases, provide training that is not available in formal schools. This type of program is similar in format to that used in formal schools in that it is scheduled classroom type instruction conducted by a qualified instructor. Training provided should enable the students, upon completion of training, to accomplish all requirements of their MOS and grade and provide the basis for more advanced training in managerial techniques.

4. On the Job Training (OJT). This is probably the easiest and least expensive method of improving the qualification of individual Marines. It is also the most abused method of training. On the Job Training cannot be accomplished by handing an inexperienced Marine a manual or set of instructions and telling him/her to learn how to do a certain task or function. For OJT to be effective, an inexperienced Marine shall be assigned to an experienced Marine who knows how to and accomplishes the assigned task in the proper manner. The trainee observes the experienced Marine doing the job and is then allowed to do it under the supervision of the experienced Marine. Allowing an inexperienced Marine to learn alone, by trial and error, is harmful to the individual and often results in damage to the equipment being repaired. The most important aspects of OJT are the requirements for a qualified instructor and supervision of the trainee.

5. Cross Training. Cross training, a form of OJT, is used to familiarize an individual with aspects of a MOS or occupational field other than that normally performed. It is of particular benefit to the individuals whose assigned MOS merges with the other MOSs at a higher grade in acquainting them with the fundamental requirements of the combined MOS. Cross training will also make available trained personnel to fill temporary vacancies or to assist in the accomplishment of unexpected heavy workloads in a particular shop.

6. Correspondence Courses. Correspondence courses available from the Marine Corps Institute and other sources can be used to supplement and enhance other methods of instruction. They should not be used alone as a substitute for other methods of training.

#### 4003. TECHNICAL TRAINING

1. All assigned personnel should be afforded the opportunity to participate in all types of training available to enhance their technical proficiency. Quotas for formal schools will be requested and, if available, filled with qualified personnel. Activity heads will include technical training on the activity training schedule, provide necessary OJT and encourage enrollment in available correspondence courses.

2. Activity level training will emphasize those areas determined to be deficient as indicated by the condition of the equipment and/ or the results of inspections. Particular emphasis is required on correct operation and preventive maintenance procedures on both old and new equipment. Activity technical training will be provided to both operational and maintenance personnel. The adequacy of activity training shall be determined by the administration of skill tests upon completion of the training.

#### 4004. MAINTENANCE MANAGEMENT TRAINING

1. Maintenance management training is required to provide instruction on current managerial techniques and procedures for the effective and economic management of all maintenance resources. While maintenance management training must be provided in detail to operational and maintenance supervisors, the fundamentals of maintenance management must be disseminated to all personnel.

2. The Commandant of the Marine Corps has established a Maintenance Management Officers/Staff Noncommissioned Officers School at the Naval Amphibious Base, Little Creek, Norfolk, Virginia. This course is available to all ground officers (warrant officer to lieutenant colonel) and staff noncommissioned officers. A MIMMS clerk course is also available for sergeants and below at LFTCLANT, Norfolk, Virginia. Requests for quotas to these courses of instruction will be coordinated with the Command Maintenance Management Officer.

3. Due to the limited number of quotas available for formal training in maintenance management, maintenance management training will be included in the activity's annual training plan. While directed primarily at those exercising supervision/management over operators/mechanics/technicians, maintenance management training is applicable to all NCOS, SNCOS, officers and civilians. Activity level training should be tailored to the needs of the individuals to attend the specific class, reserving the more technical aspects

of maintenance management for detailed presentation to those individuals actively employed in the maintenance management process. The current edition of MCO P4790.2 contains a listing of subject matter considered essential to maintenance management.

4005. CIVILIAN EMPLOYEE TRAINING AND DEVELOPMENT PROGRAM

1. The Command's program for the training and development of civilian employees is established by and explained in the current edition of MCDECO 12410.4. Accomplishment of the required training is the responsibility of the activity head in conjunction with the Employee Development Officer, Consolidated Civilian Personnel Division.

2. The information contained in the preceding paragraphs of this Chapter are applicable to civilian employees, as well as military personnel.

4006. TRAINING SCHEDULES/ANNUAL TRAINING PLAN

1. Training Schedules. Maintenance Management Officers or commodity managers will ensure that maintenance management training schedules are published on a monthly or quarterly basis.

2. Annual Training Plan. Maintenance Management officers or commodity managers will ensure that the maintenance management topics listed in the current edition of MCO P4790.2 are included in their respective activity's annual training plan for both military and civilian personnel.

MAINTENANCE MANAGEMENT SOP

CHAPTER 5

INSPECTIONS AND VISITS

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 5

### INSPECTIONS AND VISITS

#### 5000. GENERAL

1. To supplement information received on equipment status, activity heads at all levels must ensure that proper operating and maintenance procedures are being utilized. This is achieved by inspections and visits conducted by the activity head, designated representatives, or members of the staff. Inspections and visits not only provide the activity head with the means of evaluating the performance of the activity and individuals, they also assist in determining the adequacy of, and compliance with, existing instructions.

2. Of equal importance to the information gathering aspect of inspections and visits is the impact on operations of the visible command interest demonstrated by frequent visits to the maintenance area by the activity head or staff. Not only will the activity head be better informed, but the recognition afforded the maintenance effort will emphasize the importance placed on maintenance by the activity head. Such recognition will provide the impetus for a more effective and responsive maintenance program.

#### 5001. INSPECTIONS

1. Introduction. Inspections are one of the principle means available to an activity head to ascertain whether planning and organization are sound, the staff is functioning effectively, and if directives are clear, understood, and being implemented by subordinates. Inspections promote efficiency and economy of operations by identifying procedural deficiencies, equipment defects and proper utilization of maintenance resources.

2. Types of Inspections. There are basically two types of inspection formal and informal.

a. Formal. Formal inspections are normally announced in advance and conducted in accordance with an established schedule or procedure. Checklists will be used by the inspectors and may be used by the activity to prepare for the inspection. During the period allocated, the formal inspection takes precedence over all other activities, and personnel and equipment made available to the maximum extent possible. Formal Command inspections will be conducted annually. A schedule of Command inspections will be published in a MCDEC Bulletin in the 1010 series. Field Supply and Maintenance Analysis Office-One and Inspector General Inspections will be conducted as scheduled by higher headquarters.

b. Informal. While formal inspections normally encompass all areas of an activity's operation, informal inspections may examine only a specific area of operation. Checklists may or may not be used. The simplest form of an informal inspection is the observation of a specific function during routine operation. Informal inspections are normally conducted in a working environment (normal operations).

### 3. Characteristics

a. Regardless of what is to be inspected, or the type of inspection to be conducted, inspections must not be limited to pinpointing deficiencies. On finding a deficiency, inspectors will explain to the individual concerned and cognizant supervisory personnel, what is wrong, how to correct it and identify appropriate reference material. Noteworthy areas and procedures will be scrutinized closely to determine if procedures utilized may be used elsewhere and to afford deserved recognition to the personnel involved.

b. Inspections must be objective and based on realistic and measureable standards. Judgments must be devoid of emotion and not based on the personalities of personnel encountered.

4. Inspection Checklists. Inspection checklists are used as a guide to ensure the thoroughness of an inspection and can be used by an activity to prepare for an inspection. Checklists may also be used as a guide during normal operations by directing attention to referenced orders to ensure compliance. Activity heads should prepare and use a checklist in their inspection of maintenance activities. Appendix G will be used to assist activity heads when conducting inspections.

### 5. Reports

a. Maintenance inspection reports will be prepared and submitted by the individual inspector in accordance with the format prescribed for the maintenance inspection. Reports will be factual and concise. Remedial action will be readily discernible. Timely preparation and submission of reports is mandatory. In addition to the written report, the inspector will orally provide the results of the inspection to the activity head immediately following the completion of the inspection.

b. Formal written reports will be prepared at the conclusion of all scheduled command/activity or major commodity area inspections and as specifically directed for other inspections. Inspection reports will be consolidated by the Command Maintenance Management Officer for submission to the Commanding General and distribution as required.

### 6. Correction of Discrepancies

a. In many cases, the discrepancies noted in the inspection report are merely symptoms of the overall problem. In these cases, correction of the deficiency will not correct the problem. Inspection reports must be analyzed carefully to determine the cause of the deficiency and to determine if trends are developing that could adversely affect mission accomplishment.

b. Once identified, aggressive action must be taken to correct not only the deficiency, but its cause.

c. Follow-up action will be initiated to ensure correction of deficiencies and to preclude their recurrence.

d. When the severity or extent of the noted discrepancies dictate, a report of corrective action taken will be required. This requirement will be levied, as required, by separate correspondence and will specify the date the report is due. Reported corrective action will be specific and will not be a transposed restatement of the discrepancy.

7. Command Maintenance Management Inspections (CMMI). The Command Maintenance Management Inspection will be conducted on each activity's maintenance/commodity area annually as part of the Commanding General's (CG) inspection. The Command MMO will request technical personnel to augment the inspection team as may be required.

## 5002. VISITS

1. Introduction. Visits are used in the same manner as inspections to obtain first-hand information. Visits may be conducted formally, in which case they take on the aspects of a formal inspection; or they may be conducted in a very informal manner, stressing exchange of information and ideas. Visits fall essentially into three categories, namely command visits, staff visits and liaison visits.

a. Command Visits. The importance of visits to the operating maintenance areas by activity heads cannot be over emphasized. Periodic unscheduled visits by the activity head will provide information on working conditions, conditions of equipment and procedures actually utilized that may not be available from any other source. Additionally, visits by the activity heads are visible indications of his/her interest in maintenance and the emphasis placed on it. The information obtained by the activity head is not the only benefit of command visits. The impact on morale and the recognition afforded the maintenance personnel will result in an increase in the efforts of the maintenance personnel and a resultant increase in the efficiency of the activity maintenance program.

b. Staff Visits. The most common type of visit is the staff visit where one or more staff officers of a senior headquarters

visit a subordinate activity for a specific purpose. Staff visits are appropriate to investigate troublesome areas and afford the opportunity to exchange information with the opportunity for immediate feedback. Staff visits are of particular value in providing assistance and instruction.

c. Liaison Visits. Visits for the exchange of information, familiarization and coordination are frequently necessary, and always beneficial, between activities where no junior/senior relationship exists. Liaison visits by activity commodity area personnel to the supporting maintenance activity are essential to harmonious operation and the resolution of problem areas. Liaison visits between commodity/maintenance managers of adjacent activities for the exchange of ideas and development of mutual support are beneficial and are encouraged.

## 2. Maintenance Management Assistance Team (MMAT)

a. Concurrent with the publication of this Order, a Maintenance Management Assistance Team is established. This team is established for the sole purpose of assisting Command activities in establishing and implementing their maintenance management programs and will not be used as an inspection tool.

b. The MMAT will be task organized for each commitment. it will consist of the Command Maintenance Management Officer and/or the Command Maintenance Management Chief, and commodity specialists, as required, from the Support Division, Facilities Department.

c. The MMAT will respond to requests from activity heads/officers in charge to evaluate and/or assist in establishing a maintenance management program in their activity. The MMAT will not respond to a request from a senior in the administrative chain @f command to evaluate the maintenance management program in a subordinate activity. Requests may be submitted, in writing, to the Commanding General (Code C 049).

d. Upon completion of the evaluation and the rendering of assistance to an activity in establishing their program, the MMAT will report only to the activity head requesting the visit.

## 3. Field Supply Maintenance Analysis Office - One (FSMAO-1). The Field Supply Maintenance Analysis Office - One team will provide maintenance assistance as may be required. Requests for FSMAO-1 assistance will be submitted through the Commanding General (Code C 049). The current edition of MCO P4400.160 provides guidance and procedures for the FSMAO Program.

MAINTENANCE MANAGEMENT SOP

CHAPTER 6

FACILITIES

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 6

### FACILITIES

6000. GENERAL. Efficient equipment maintenance can be achieved only when the activity has the maintenance facilities necessary to perform the authorized echelon of maintenance on the equipment supported and when the facilities are properly utilized. Maintenance facilities consist of buildings, land, shelters and all permanent improvements thereto used for maintenance purposes. Thus, not only must a building be provided, it must also include the necessary utilities, e.g., lighting, plumbing and ventilation.

#### 6001. RESPONSIBILITIES

1. The Assistant Chief of Staff, Facilities has been assigned the responsibility of developing and implementing Command policy pertaining to facilities and utilities. Marine Corps Development and Education Command orders in the 11000 series set forth Command policy and establish the procedures for submission of requests for construction, alteration, modification and repair of facilities.
2. Activity heads are responsible for the proper utilization of assigned facilities. Inherent in this responsibility is the requirement to ensure that the facilities are properly maintained and policed.
3. Maintenance managers are responsible to the activity head for the day-today utilization of the maintenance facilities and for the internal organization of facilities assigned.

#### 6002. MAINTENANCE AREAS

1. Location. Maintenance areas should be located as close as possible to billeting, messing and operating areas to reduce travel time of personnel and the need to transport equipment.
2. Requirements. To satisfy the requirements of maintenance, the facility provided must do more than merely provide shelter from the elements. It must contain, among other things, adequate heating, lighting, plumbing, electrical power and ventilation facilities.
  - a. Heating. The capability must exist to provide sufficient heat to allow assigned personnel to accomplish required maintenance. Extreme cold limits the capabilities of maintenance personnel to accomplish required tasks. If a central heating unit does not exist, activity heads should arrange for the installation and use of space heaters.

b. Lighting. Adequate lighting must be provided to accomplish assigned tasks safely and without constituting a health hazard to personnel. Lighting requirements have been established by the Occupational Safety and Health Administration for various occupations. Activity heads should determine adequacy of existing lighting by requesting a lighting survey be conducted. Requests should be submitted to the Assistant Chief of Staff, Facilities.

c. Plumbing. Water must be provided in sufficient quantity, at the desired location, to accomplish maintenance tasks and to provide necessary drinking and toilet facilities. Additional facilities are required in battery charging areas.

d. Electrical Power. Electrical power for the operation of tools, test equipment and shop equipment must be available in the proper phase, frequency and voltage.

e. Ventilation. Proper ventilation is necessary for the safety of personnel. This is a prime requisite in areas where vehicular equipment is maintained, where equipment is cleaned by the use of chemicals, and in battery charging areas.

f. Additional requirements may exist which are peculiar to the type of equipment being maintained. An example of this is the provision of an adequate grounding system where electrical or electronic equipment is being repaired. Activity heads and commodity/maintenance managers should determine specific requirements and ensure they are provided to facilitate the maintenance effort and enhance personnel and equipment safety.

3. Organization. The maintenance shop should be organized to provide for efficient work flow, personnel safety and the economic use of support and test equipment. Although the differences required by each commodity area preclude a standardized shop arrangement, there are certain characteristics which are common to all shops. These include the maintenance area, shop office, tool room, supply, publication library and the shipping/receiving (check-in/check-out) areas.

a. Maintenance Area. The maintenance area is the focal point around which all other shop section/offices are arranged. Supporting sections/offices must be readily accessible to maintenance personnel in order to expedite the maintenance process and decrease time away from the job. The maintenance area must be large enough to sustain the maintenance requirements of the shop. Access to the maintenance area should be limited to shop personnel and those visitors cleared through the shop office. The work area should be divided into groupings of like maintenance areas which have a common power, lighting, ventilation and test equipment requirements. Common use test and support equipment (equipment which is used in more than one operation or on various types of equipment) should be so located that it is readily accessible to all who require its use.

b. Shop Office. The shop office should be located adjacent to the shipping/receiving area to facilitate processing paperwork and contact with shop customers. All personnel desiring to enter the shop, other than those assigned, should be required to check in and out at the shop office not only for control, but to preclude interference in the maintenance process. Ideally, all shop functions should be visible from the shop office.

c. Shipping/Receiving Area. The shipping/receiving area serves as the primary contact point for customers. It must be readily accessible to the customers near the entrance to the shop, but at the same time, it must not be located so as to encourage customer visits into the maintenance area. This area can be used for the initial acceptance inspection prior to inducting equipment into the shop, and as the area where the customer inspects the completed equipment. Equipment awaiting work or pickup by customers is normally held in this section for control purposes and to preclude overcrowding the maintenance area.

d. Tool Room, Supply and Publications Library. These areas should be located adjacent to the maintenance area. The accessibility of these areas to maintenance personnel will encourage their use and preclude prolonged absences away from the job underway, thus expediting the maintenance process.

e. Service Areas. Service areas will be appropriately identified and located in conjunction with the maintenance shop layout, e.g., inspection stations and quality control points.

f. Battery Shops. Battery shops will be established when applicable. Safety precautions outlined in NAVMC P5100 (Safety Regulations) will be complied with in their entirety, e.g., eyewash stations.

4. Misuse of Government Repair Facilities/Material. All Maintenance Management Officers and Commodity Managers will ensure that repair facilities are not used for unauthorized repair of equipment/property. The following restrictions apply:

a. Personal Vehicles. Personal vehicles will not be allowed in government repair facilities. This includes the parking of personal vehicles in a repair facility for protection against inclement weather.

b. Government Tools and Test Equipment. Government tools and test equipment will not be used for repair of property other than government property.

c. Personal Weapons. Personal weapons will not be repaired in government repair facilities.

MAINTENANCE MANAGEMENT SOP

CHAPTER 7

PUBLICATIONS AND DIRECTIVES

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 7

### PUBLICATIONS AND DIRECTIVES

#### 7000. GENERAL

1. Publications and directives provide the "how to" information required to effectively operate and maintain equipment and implement established programs. It is essential that the necessary publications and directives be available and that their use be understood by all personnel who need the information they contain in performance of duties. Most operators and maintenance personnel receive familiarization training on publications and directives while undergoing training for their military occupational specialties. They do not, however, receive any training in depth on how to determine requirements or how to obtain and maintain publications and directives; nor is this information provided in higher level schools. The training required must, therefore, be provided by the activity head.

2. Publications. Publications are those manuals and technical publications which contain instructions for operation and/or maintenance services, or contain data utilized in performing maintenance. Technical publications associated with Marine Corps equipment may be published by the Commandant of the Marine Corps, other service chiefs, or commercial vendors. The current edition of MCO 5215.14 provides information on the Marine Corps Technical Publication System. The current edition of MCO P5600.31 provides a detailed definition of "Publications" and procedures for establishing allowances, requisitioning, internal distribution and control.

3. Directives. Directives are orders and bulletins published and distributed by all levels of command to establish policies and set forth procedures for the conduct of programs in the Marine Corps.

#### 7001. RESPONSIBILITIES

1. Activity Heads. Activity heads shall ensure that required publications and directives are available and that personnel are trained in their use, acquisition, maintenance and disposition.

2. S-1/Administrative Officer. The S-1/administrative officer exercises primary staff cognizance over the activity's publication control and distribution system. In conjunction with the MMO, commodity managers and maintenance managers, the S-1/administrative officer will establish the activity's publication requirements and internal distribution.

3. MMO. The MMO exercises staff cognizance over the acquisition, maintenance and use of technical publications/directives and

ensures that the activity training program includes required training on publications. The MMO provides technical assistance to the S-1/administrative officer in determining the publications/directives required and in what quantities, and in establishing the internal distribution for publications/directives received.

4. Activity Supply Officer. The activity supply officer will be responsible for the following transactions:

a. Requisition those publications requested by maintenance activities.

b. Validation/reconciliation of outstanding requisitions.

c. Receipt of publications that were on order.

d. Ensure the publications received are distributed to the maintenance activity requesting the publication.

5. Commodity/Maintenance Managers. Commodity/maintenance managers establish required technical libraries within their areas of responsibility and provide required training on the acquisition, use and maintenance of publications. Commodity/maintenance managers will establish a publications inventory and control system and provide input to the S-1 and MMO on publications required from automatic distribution.

## 7002. ALLOWANCE LISTS

### 1. Table of Allowances for Publications (TAP)

a. The TAP is a four-page computer printout published by the Commandant of the Marine Corps which lists all the distribution codes/lists and the allowances for the specific codes/lists that an activity head rates. It is tailored to an individual activity. The allowances listed therein are based on the requests of the activity head concerned and the judgment of the sponsors of Marine Corps publications and directives. The TAP is published upon a request for revision by the activity head concerned, or semiannually if no changes have been requested.

b. In establishing the allowances in the TAP, an activity head must not include publications required by a subordinate activity which has its own TAP. However, it must be determined who will provide publications for commodity areas under the operational control of the activity's staff when administrative functions are performed by a subordinate activity with its own T/A. Publications should be provided through only one activity to preclude wasteful duplication.

c. The TAP should be reviewed within 20 days after receipt of the new Table of Allowance and/or quarterly in accordance with the

current edition of MCO P4790.2. The quarterly review is established and conducted based upon receipt of the SL 1-2/1-3 at which time publication requirements are determined. In addition, Marine Corps Bulletin 5215 (Checklist) is used during the review of the TAP.

2. Commands. All commands below the Headquarters Marine Corps level who issue directives will establish distribution and allowance systems for those directives. This is normally accomplished through an order in the 5600 series. These orders establish distribution codes under which the publications are issued and allowances for all subordinate activities who receive them. Subordinate activity heads are responsible for further distribution of those directives within their activities.

#### 7003. CONTROLLED PUBLICATIONS

1. Checklists. A checklist of effective directives (MCBul 5215 series) is published semiannually by the Commandant of the Marine Corps and all other activity heads who issue directives. These checklists must be used in conjunction with the allowances established to ensure that the activities receiving directives have the current edition of all required directives on hand.

2. SL 1-2, Index of Authorized Publications of Equipment Support. The SL 1-2, published quarterly by the Commandant of the Marine Corps, provides a listing of all publications authorized to be used in operating and maintaining Marine Corps equipment. The index, arranged in equipment identification (ID) number sequence, lists all publications authorized and required for the operation and maintenance for each type of equipment under that type of equipment's ID number. However, since some end items contain components which have publications of their own, the components may also have to be referenced to obtain a complete listing of publications required for such end items. Upon receipt of a new SL 1-2, a review will be conducted to ensure that all technical publications required to support the activities are current and up to date.

3. SL 1-3, Index of Publications Authorized and Stocked by the Marine Corps (PASMCT.-The SL 1-3, published by the Commandant of the Marine Corps, provides listings by prefix control number (PCN) and short title of all publications stocked at the MCLB, Albany, Ga. The SL 1-3 also provides a listing of all cancelled and superseded publications. Included in each listing is the distribution code under which the publication is automatically distributed.

#### 7004. PUBLICATIONS CONTROL SYSTEM

1. General. The establishment of a publications control system is accomplished in three steps; determining requirements, establishing internal distribution and establishing an inventory control

and requisitioning process. These steps are interrelated and must be accomplished in the order stated. The state of existing publications and publication libraries will determine if all the steps are required. The program is laid out so that activities can begin at any point, omitting any steps previously accomplished.

2. Determining Requirements. In determining the activity's requirements for publications or directives, similar procedures are used. However, since different control publications are used in the process, the procedures for each will be explained separately.

a. Publications. To determine an activity's requirements for publications, it is necessary to ascertain the types of equipment to be supported, the echelon of support provided, the quantity of publications required and in what locations. This is accomplished by using the T/E or activity allowance list, the T/O cover page, the SL 1-2 and the SL 1-3. Heads of subordinate elements in an activity receiving publications through an activity's internal distribution should accomplish the following:

(1) Using the T/E (or allowance list) prepare an Inventory Control Card, MCDEC 5604/1 (LR), Appendix H, for each type of equipment rated/supported. At this time only the equipment nomenclature, ID number, Table of Authorized Material (TAM - NAVMC 1017) number, and quantity rated/supported need be completed.

(a) Support maintenance activities require publications for the equipment of all activities supported.

(b) Identification and TAM numbers can be found in the TAM.

(2) Refer to SL 1-2 to determine the publications required for each type of equipment. List the publications required on the inventory control cards previously prepared. Only those publications required for the echelon of maintenance authorized in the "logistics capabilities" paragraph of the T/O cover page should be listed on the card, except that all modification instructions and technical instructions should be listed and held regardless of the echelon of maintenance authorized.

(3) Enter the distribution code, found in SL 1-3, on the inventory card for each publication listed.

(4) The number of copies of each publication required is dependent on the number of technical libraries to be established, the quantity of equipment to be supported and the method of employment of the equipment. It is not considered practical in all cases to have one set of publications pertaining to an item equipment for each item possessed. The following may be used as a guide in determining the publication requirements for operational (first and second echelon) publications:

DENSITY RANGE OF ITEMSACTIVITY MINIMUM REQUIREMENTS

1 - 10

One publication per item.

1 - 20

One publication each per first ten items, and one publication per two items from 11 to 20.

1 - 30

One publication each per first ten items, one publication per two items from 11 to 20, and one publication per three items from 21 to 30.

Note: More than 30 items utilize the same ratio; i.e., 31 to 41 items use requirements criteria listed above for first 30 items and one publication per four items for 31 to 40.

The above is merely a guide; the actual determination of publication requirements will be made by the activity head.

(5) Technical publications of a general nature (e.g., TM 4700-15/1, Equipment Record Procedures) and those technical manuals and technical instructions which provide general information concerning a commodity area, maintenance or maintenance management, may not be listed under the equipment to which they apply. To identify this type of publication, it is necessary to review that part of the SL 1-3 which lists the publications by short title; or to determine their existence through the publication being referenced in other publications, directives, or checklists. The determination of requirements is accomplished in the same manner as the equipment oriented publications and should be recorded on MCDEC 5604/1 (LR), except that no equipment identification data is recorded.

b. Directives

(1) The procedures used in determining the requirements for directives are the effective directives checklists (bulletins in the 5215 series of the activity and all senior headquarters). These checklists should be reviewed by the head of each subordinate element receiving publications through the internal distribution system of the activity. The basic criteria which should be met is the affirmative answer to the question, "Does this directive contain information necessary for the accomplishment of the assigned mission/duties?"

(2) Inventory control cards should be prepared for directives required in the same manner as those prepared for publications not associated with specific equipment types.

c. Final determination of requirements in a subordinate element of an activity is accomplished through a careful analysis of

the distribution codes and quantities of required individual publications recorded on the inventory control cards. A list of the distribution codes and the quantities required will be prepared for each course of publications (Headquarters Marine Corps, MCDEC, etc.).

(1) Sort the cards by distribution codes. This may require moving a card from one pile to another during the analysis since, in most cases, more than one publication will be listed on a card.

(2) Review the requirements for each publication under a distribution code. The minimum number required should be entered on the lists as the sections requirement for that code. It must be remembered that all publications received under an allowance must be maintained. The decision must be made whether it is necessary to receive a large quantity of one publication, and, therefore, a large quantity of all publications distributed under that code, or if a lesser number will suffice.

d. After all subordinate elements have compiled their list of requirements, the S-1/administrative officer and MMO should jointly chair a meeting where all the requirements of the activity will be consolidated. This consolidation should not be a simple adding of the requirements of the various elements. Each code/list should be carefully analyzed to determine the total requirements for the activity. Important aspects which must be considered are:

(1) Is it necessary to have specific publications in all locations?

(2) Are these publications used on a recurring basis or just periodically by the various sections?

(3) Could the requirements for these publications be satisfied if a copy is available at a central location?

The results of this consolidation should be recorded on a NAVMC 10975, Publications Distribution Control.

e. Once the consolidation is complete, the S-1/administrative officer and the MMO can compare the NAVMC 10975 with the current TAP and allowances established by other senior activity heads. The S-1/administrative officer should then prepare the necessary correspondence to the Commandant of the Marine Corps (Code HQSP-2) and other senior activity heads to request changes to the established allowances.

3. Internal Distribution. The basis of the activity's internal distribution of publications will have been established with the completion of the NAVMC 10975 in accordance with the procedures established above. Additional procedures which must be developed and explained in the activity's directive dealing with publications

are the distribution of directives received on automatic distribution, and the distribution of directives as a result of requisitions submitted.

a. Directives received on automatic distribution will normally be processed and distributed by the S-1/administrative officer. This distribution must be in accordance with the internal distribution indicated on the NAVMC 10975.

b. Directives received as a result of requisitions submitted will normally be received through the mail. These publications can be identified by the copy of the requisition document in the package of publications. Publications received by requisitioning should be forwarded to the activity's supply unit where the requisition can be recorded as having been filled and the publications delivered to the section(s) that originally ordered them.

4. Inventory Control. Inventory control is the means used to ensure that the publications received are properly maintained. This area of the activity's directive on publications should be the most detailed since the instructions provided will be used daily by the publications librarians in the subordinate elements of the activity.

a. Publication Libraries. The locations (by shop/sections) of all libraries within the activity must be identified. Although the arrangement of directives is specified in the current edition of MCO P5215.1, the arrangement of technical publications is left to the discretion of the activity head and, in most cases, to the shop officer. Publications may be arranged in numerical order by publication number or grouped by equipment type.

b. Maintenance of Publications. Detailed instructions should be provided by entering and recording changes to publications/ directives and the procedures to be used in disposal of excess or outdated publications. Instructions for reporting errors in publications on NAVMC 10772 (See the current edition of MCO P5215.14) should be included.

c. Requisitioning Instructions. The procedures to be used within the activity for requisitioning publications must be explained in detail. Instructions should include any mandatory review/reconciliation procedures established for control purposes.

D Twice yearly, normally on 1 March and 1 September, a listing of all backordered publications requisitions is forwarded to each unit by the stock control point. Known as the semiannual backorder validation (BOV), this document contains a listing of all valid requisitions held by the stock control point. When a BOV is received at the unit, it must be forwarded to the supply officer for review. Review of the BOV is most effectively accomplished concurrently with monthly pending requisition validation/reconciliation meetings. An

important note is the fact that if a pending requisition held in the supply office's backorder file does not appear on the BOV, the pending requisition is no longer valid and has been deleted from the stock control point's backorder file. This means that if the publication is still required, it must be researched and reordered, if necessary.

e. Once the BOV has been received, reviewed and properly annotated in accordance with the current edition of MCO P5600.31, it must be returned to the stock control point within 45 days of issuance. If your unit fails to return the annotated BOV to the stock control point within the prescribed timeframes, the stock control point will cancel all of your unit's backordered publications requisitions.

f. The establishment of an inventory control system for each library established is mandatory. A copy of MCDEC Form 5604/1 (LR) will be used as the control document. File copies of requisitions submitted for publications will be maintained by the publications control clerk.

g. Libraries will be physically inventoried upon receipt of new checklists and an updated SL 1-2. Superseded and cancelled publications and directives will be disposed of in accordance with the current directives. Requisitions will be submitted for those publications/directives authorized and required but not on hand.

#### 7005. RECOMMENDED CHANGES TO PUBLICATIONS

1. To ensure accuracy, currency and applicability of information contained in technical publications, it is essential that errors detected or recommended changes be reported promptly. The NAVMC 10772 will be used to submit any recommended changes/corrections to technical publications.

2. Recommended changes/corrections should be submitted by the individual detecting the need for the change. Submission of the NAVMC 10772 will not be delayed for an administrative processing or review. A copy of NAVMC 10772 will be provided to the Commanding General (Code C 049).

#### 7006. PUBLICATIONS FOR COMMERCIAL EQUIPMENT

1. Publications for commercial type equipment, including garrison mobile automotive, engineer and materials handling equipment, are normally procured and distributed with the end items. Very few of these publications are available through the Marine Corps publication system, and, as a result, are not listed in the SL 1-2 and SL 1-3. Operation and maintenance publications for commercial type equipment must be procured locally through the equipment distributor or from the manufacturer by the activity requiring the publication.

2. Publications for commercial equipment will be managed and controlled in accordance with the provisions of this Chapter. It is the responsibility of the owning unit to keep abreast of commercial manufacturers and distributors of publications relative to commercial equipment organic to their respective organizations.

MAINTENANCE MANAGEMENT SOP

CHAPTER 8

MAINTENANCE RELATED PROGRAMS

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# MAINTENANCE MANAGEMENT SOP

## CHAPTER 8

### MAINTENANCE RELATED PROGRAMS

#### 8000. GENERAL

1. Many programs have been established in the Marine Corps which have a direct effect on maintenance. These programs have been assigned to ensure more effective management, increased control and an improved readiness posture.

2. This Chapter will contain a summary of each of the programs which effect the majority of the activities and provide the necessary references where a more detailed explanation can be found. Provisions of the implementing directives will be strictly adhered to.

#### 8001. MODIFICATION CONTROL PROGRAM

1. The Marine Corps' Modification Control Program is described in the current edition of MCO P4400.84. A detailed explanation of the program is provided and reporting procedures for completed modifications are established.

2. Procedures for establishing a Modification Control Program are contained in the current editions of MCO P4790.2 and TM 4700-15/1. Programs established in accordance with the instructions contained in the references will ensure activity heads that the configuration and design of assigned equipment is in accordance with current specifications and requirements.

3. The accomplishment of modifications to equipment assigned an activity will be in accordance with the instructions contained in paragraph 2004.6 of this order.

#### 8002. TEST, MEASURE AND DIAGNOSTIC EQUIPMENT (TMDE) CALIBRATION AND MAINTENANCE PROGRAM

1. The Marine Corps' Calibration Program is described in the current edition of MCO 4733.1. This program is established to ensure that accurate and precise standards of measurement are maintained during the test, and that inspection and repair of Marine Corps equipment is conducted. Timely calibration of TMDE ensures that established standards of equipment performance are met in the equipment repair process.

2. To ensure that required calibration is accomplished on Marine Corps TMDE, the activity calibration control program has been established. Instructions for the establishment and implementation

for this program are contained in the current editions of TM 470015/1 and TI 4733-15/1.

8003. QUALITY DEFICIENCY REPORTS (QDR)

1. The current editions of MCO 4855.10 and MCDECO 4855.1 establish the criteria and provide instructions for the submission of QDRS.
2. The purpose of the QDR is to provide information to activities responsible for the development, concerning deficiencies in design, material, or procurements so that action may be taken to correct the reported deficiency to prevent personal injury or damage to equipment. Quality Deficiency Reports will be prepared and submitted by the individual who discovers the deficiency.
3. There are three categories, two priorities and two formats of QDRs for reporting deficiencies:
  - a. Category I QDR. This report is submitted in message format (MCO 4855.10, enclosure (3)), when the deficiency may cause death, injury, severe occupational illness, or loss or major damage of equipment. This action shall be followed with the submission of SF 368 QDR (MCO 4855.10, enclosure (4)) within 48 hours of message transmittal.
  - b. Category II Urgent Priority. This report is submitted using the SF 368 form to report changes in operation characteristics or potentially hazardous conditions that may effect the readiness or safety in the use of the equipment reported on.
  - c. Category III Routine Priority. Using the SF 368 Form, routine priority shall be assigned to a QDR when category I or II urgent do not apply.
4. When a QDR is submitted, five copies of the report will be made and distributed as follows:
  - a. The original and two copies will be sent directly to Commanding General (P840) MCLB, Albany, GA, 31704.
  - b. One copy will be sent to the Commanding General (Code C 049) MCDEC, Quantico, VA, 22134.
  - c. One copy will be retained by the originator as a file copy.
5. The Command MMO is the Command central control point for the submission and receipt of all QDRs (SF 368) originating at MCDEC or received for evaluation.
6. When QDRs are submitted on defective parts, the defective parts will be retained by the reporting activity pending receipt of disposal instructions.

#### 8004. DETERMINATION OF ECONOMICAL REPAIR

1. The current editions of MCO 4710.8, MCO 11260.3 and MCO 11240.84 provide the instructions to be followed in determining the eligibility of an item of equipment (except commercial use vehicles covered in paragraph 8007). The purpose of this program is to ensure, to the maximum extent possible, that total repair costs are determined prior to commencing work on the equipment. The objective of the program is to preclude excessive expenditure for repair of equipment which should be washed out of the system as uneconomical to repair.

2. All Command activities involved in repair of Marine Corps equipment will prepare an estimate of repair costs prior to commencing work on an item of equipment. In the case of minor repairs (i.e., estimated cost of repairs 10% or less of the standard unit price/ replacement cost or one time expenditure limit for engineer equipment) the estimated repair cost will be entered on the ERO/ SRO. A limited technical inspection form need not be completed for minor repairs, but is required for all major repairs (i.e., estimated repair cost exceeding 10% of the standard unit price/ replacement cost or one time expenditure limit).

#### 8005. QUALITY CONTROL AND QUALITY ASSURANCE

1. The objective of the quality control and quality assurance program is to maximize equipment readiness, efficiency and reliability by ensuring that proper and effective maintenance is performed on all equipment undergoing repair or service. To this end, Marine Corps programs have been instituted at both logistic support bases to ensure the quality of the equipment issued to field activities. The current edition of MCO 4855.2 describes the established program. To provide the necessary information from field units on the quality of equipment received, the Quality/Reliability Report (QRR) was developed. Information on this report is contained in the current edition of MCO 4855.6.

2. A quality control program will be established in all activities where equipment maintenance is performed. Completed work will be inspected by supervisory personnel and, where possible, performance tested. (It is not considered practical to performance test ordnance weapons.) Repaired equipment should be operational in all respects and should meet or exceed established performance standards.

#### 8006. INTRODUCTION OF NEW EQUIPMENT

1. New equipment is being introduced into the Marine Corps inventory continuously. At times, activities will receive new equipment and will not have on hand trained operators and maintenance

personnel, or the required publications and support equipment. The current edition of MCO 4400.32 provides guidance on placing new equipment into service.

2. New items of equipment received by activity heads will be placed on administrative deadline until the conditions set forth in the current edition of MCO 4400.32 are satisfied. Requests for authorization to place new equipment into service will be submitted to the Commanding General (Code C 049). New equipment will not be placed in service until such authorization is received.

#### 8007. ENGINEER EQUIPMENT REPAIR CRITERIA

1. The policy and procedures for the replacement and repair of engineer equipment are contained in the current edition of MCO 4710.8, (excluding GME gear which is published in MCO 11260.3), which provides the criteria to be used in the determination of the economical reparability of engineer equipment to preclude the unnecessary expenditure of maintenance funds when item replacement is more economical. The average life expectancy established is a prime factor in the computation of a maximum one-time expenditure limit.

2. Proper maintenance of equipment records is essential to this program. Activity heads will ensure compliance with the record keeping requirements established in the current edition of TM 4700-15/1.

#### 8008. RECOVERABLE ITEMS PROGRAM

1. The purpose of the Recoverable Items Program is to ensure recovery, evacuation and disposal of principle reparable items which are in excess to an activity's requirements; require repair that is beyond the capability of the activity; or are not economically reparable when the condition of the equipment and the asset condition of the Marine Corps are considered. The program is explained and procedures for its implementation are set forth in the current edition of MCO P4400.82.

2. Determination of the condition of equipment to be reported in the program is the responsibility of maintenance activities. Supporting maintenance activities will conduct LTIs on all equipment prior to submission of required reports.

3. Responsibilities for conducting LTIs and procedures for the submission of a Recoverable Items Report (WIR) are outlined in par. 2004.9 and 3004, respectively, of this Order.

8009. REPLACEMENT AND EVACUATION PROGRAM (R&E)

1. The Replacement and Evacuation Program is designed to extend the life of Marine Corps equipment by providing for its timely replacement and evacuation for rebuild while assuring the required material is on hand in the using activity. This is accomplished by a planned retrograding of selected equipment for rebuild after like items have been provided to the using activities. The program is explained in the current editions of MCO P4400.82 and TI 4710-14/1.
2. Nomination of equipment assigned to activity heads will be coordinated by the Property Control Officer, MCDEC.

8010. GARRISON MOBILE (ENGINEER) EQUIPMENT PROGRAM

1. The Garrison Mobile (Engineer) Equipment Program is designed to achieve the optimum relationship between equipment investment costs and effective mission accomplishment. All items of garrison mobile engineer equipment costing \$3000 or more, which are used in equipment repair facilities or in the construction, alteration, maintenance, or repair of bridges, roads, or other real property are included in the program.
2. The current edition of MCO 11260.3 establishes the program and provides the policy and procedures for its management. The Order provides guidance on inventory management procedures, maintenance management procedures, repair/replacement criteria, identification markings and identification listings. The life expectancy established in the Order is a prime factor in the computation of maximum one-time expenditure limits.

8011. GARRISON MOBILE (MATERIALS HANDLING) EQUIPMENT PROGRAM

1. The Garrison Mobile (Materials Handling) Equipment Program, established by the current edition of MCO 11240.47, is designed to preclude the unnecessary expenditure of funds on uneconomically repairable equipment and to ensure uniform procedures are used in the operation of materials handling equipment. The order provides the criteria to be used in determining the economical reparability of materials handling equipment. Information on operation, records, painting and identification markings are also included.
2. The current edition of MCO 11240.48 establishes procedures for the scheduling and performance of maintenance services on administrative use vehicles which includes materials handling equipment.

8012. GARRISON MOBILE (AUTOMOTIVE) EQUIPMENT PROGRAM

1. The purpose of the Garrison Mobile (Automotive) Equipment Program is to enhance readiness of the automotive fleet and to

eliminate costly maintenance performed on uneconomically repairable vehicles.

2. The current edition of MCO 11240.48 provides guidance on the replacement and repair of garrison mobile (automotive) equipment. The current edition of MCO 11240.48 establishes procedures for the scheduling and performance of maintenance services on administrative use vehicles.

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APPENDIX A

LIST OF PERTINENT PUBLICATIONS/DIRECTIVES  
FOR MAINTENANCE MANAGEMENT

1. Only those directives/publications that apply generally to maintenance management are listed in this Appendix. Directives/publications that apply to specific items of equipment; i.e., advance logistics orders, TMs, etc., are not listed. Only the basic identifying data for the directives/publications listed is provided. The current editions of the following directives/ publications will be used at all times:

<u>Directive</u>	<u>Title</u>	<u>Code/ List</u>
ALO's	(on applicable equipment)	
	PS, The Preventive Maintenance Monthly	IW
NAVMC 1017	Table of Authorized Material (TAM)	X
NAVMC 2599	Guidebook for Commanders - Materiel Management	L97
NAVMC 2664	Financial Guidebook for Commanders	DR
NAVMC 2666	Marine Corps Guide for Camouflage Paint	E11
NAVMC 2667	Marine Corps Desk Top Dictionary Logistics	E
NAVMC 2761	Listing of Publications by Distribution Code/List	ZB6
MCO P1020.34	Marine Corps Uniform Regulations	DL
MCO P1200.7	MOS Manual	DM
MCO P1500.12	Marine Corps Formal Schools Catalog	A3
MCO P1500.40	Marine Corps Training Philosophy Definitions, Provisions Training Requirements	A/G
MCO 1510.2	Individual Training of Enlisted Marines	A
MCO 1550.3	MCI Correspondence Courses	A
MCO 1650.17	Marine Corps Military Incentive Awards Program	A
MCO 3000.2	Operational Reporting	DEI/L6

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MCO 3000.11	Marine Corps Automated Readiness Evaluation System, Logistics	L80 (MARES LOG)
MCO 3000.12	MARES LOG Users Procedures	L80
MCO 3500.9	Arming of Individual Marines	A
MCO 3574.2	Marksmanship Training w/Individual Small Arms	A
MCO 4000.6	Marine Corps ORF Program	L81
MCO 4030.16	Packaging and Packaging Maintenance Of Small Arms	E
MCO P4050.38	Personal Effects and Baggage Manual	A54
MCO 4100.11	Lubricating Oil Recycling and Refuse Policy	A
MCO 4200.9	Acquisition and Control of Class 3 & 4 Plant Property	E
MCO P4200.15	Marine Corps Purchasing Manual	E1
MCO 4400.16	Uniform Material Movement and Issue Priority System	E
MCO P4400.19	Marine Corps Supply Manual, Vol. 1	IN
MCO P4400.20	Marine Corps Supply Manual, Vol. 11	IR
MCO P4400.21	Marine Corps Supply Manual, Vol. 1V	IT
MCO 4400.32	Policy for Support of New Equipment	E
MCO P4400.82	Controlled Items Management Manual	E7
MCO P4400.84	Special Programs Manual	E8
MCO P4400.123	SASSY Accounting Manual, Vol. II (SMU Procedures)	E22
MCO P4400.125	SASSY Accounting Manual, Vol. IV (Maint Float Procedures)	E24
MCO P4400.126	SASSY Accounting Manual, Vol. V (The Appendix)	E25
MCO 4400.141	Critical Low-Density Equipment, Secondary Items	E
MCO P4400.150	Consumer Level Supply Management Policy Manual	E30

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MCO P4400.151	Intermediate Level Supply Management Policy Manual	E30
MCO P4400.160	Field Supply and Maintenance Analysis Office (FSMAO) Program	IE
MCO 4408.2	Supply and Maintenance Support of Cryptographic Equipment	SPL
MCO 4410.9	Assignment of Local NSNs and Criteria for Determining Assignment of NSNs	E4
MCO 4430.3	Report of Item and Packaging Discrepancy	HK
MCO 4440.27	Garrison Mobile Equipment Inventory Control	CN
MCO P4450.7	Marine Corps Warehousing Manual	E10
MCO 4570.23	Disposal of Fired Cartridge Cases and Other Inert Ammo Items	E
MCO 4570.24	DoD Hazardous Material Disposal Policy	E
MCO P4600.7	Military Transportation Manual	CR
MCO P4610.19	Trans and Travel Report of Discrepancies in Shipments	HW2
MCO 4710.8	Uniform Criteria for Repair Cost Estimates to Determine Economical Repair	E14
MCO 4733.1	Marine Corps TMDE Calibration and Maintenance Program	AB/JA
MCO P4750.3	Painting and Marking of Marine Corps Equipment	E11
MCO P4790.1	MIMMS Introduction Manual	E14
MCO P4790.2	MIMMS Field Procedures Manual	E15
MCO 4790.8	Repairing of Microminiature Electronic Circuits	E
MCO 4855.2	Marine Corps Quality Assurance Program	IW
MCO 4855.6	Quality and Reliability Reporting	E
MCO 4855.10	Quality Deficiency Reporting	IW

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MCO 5000.13	Use of the Metric System of Measurement Within The Marine Corps	A
MCO 5040.5	Inspection by Inspector General, Marine Corps	L78
MCO 5100.8	Marine Corps Ground Occupational Safety and Health Program	A
MCO 5100.19	Marine Corps Traffic Safety Program	A
MCO 5101.8	Marine Corps Ground Mishaps Reporting	A
MCO 5210.11	Records Management Program for the Marine Corps	A
MCO 5214.2	Records Management in the Marine Corps	A
MCO P5215.1	The Marine Corps Directives System	ZB4
MCO P5215.17	Marine Corps Technical Publications System	E
MCO 5216.9	Organization, Directory and Correspondence Code (HQMC)	A
MCO P5290.1	Marine Corps Audiovisual Equipment Program	A58
MCO P5320.5	Personnel Requirements Criteria Manual	IO
MCO 5370.3	Standards of Conduct	A
MCO P5400.6	List of Marine Corps Activities	ZB1
MCO 5500.6	Arming of Law Enforcement & Security Personnel and Use of Deadly Force	A
MCO 5500R.12	Physical Security of Small Arms and Ammo at Selected Marine Corps Reserve Centers	G
MCO P5600.31	Marine Corps Publishing and Printing Regulations	ZB
MCO 5600.45	Marine Corps Distribution Codes/Lists	ZB
MCO 5605.9	Publications Support for Marine Corps Units Being Deployed/Rotated	ZB1
MCO 6260.1	Marine Corps Hearing Conservation Program	A

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MCO P7000.14	Marine Corps Cost Factors Manual	DK3
MCO P7100.8	Field Budget Guidance	A38
MCO 8011.4	MC Table of Allowances for Class V (W) Material	A14
MCO 8020.1	Handling, Transportation, Storage, Reclassification and Disposal of Class V (W) Material	A
MCO 8300.1	Marine Corps Serialized Control of Small Arms System	A
MCO 10110R.1	Issue and Sale of Meals to Selected MCR Personnel	G
MCO P10110.14	Food Services and Subsistence Management Manual	IV
MCO 10110.40	Policy for Management of Individual Combat Meals	A
MCO P10120.28	Individual Clothing Regulations	FX
MCO 10230.2	USMC Standard Air Conditioners and Skid Assemblies	E
MCO 10330.2	Compressed Gases Gas Cylinders	L22
MCO 10510.18	Policy and Responsibility for Test and Measuring Equipment	BM1
MCO 10510.44	Disassociation of Equipment for Electronic Shops	BM
MCO 10520.3	Flag Manual	A15
MCO 11240.19	Repair Parts, Marine Corps Tactical Vehicles	AO
MCO 11240.46	Management, Acquisition and Use of Admin Motor Vehicles	SPL
MCO 11240.47	Operation and Repair/Replacement of Materials Handling Equipment	SPL
MCO 11240.48	Maintenance Procedures for Garrison Mobile (Automotive and Material Handling) Equipment	CN
MCO 11240.66	Standard Licensing Procedures for Operators of Military Motor Vehicles	A

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MCO 11240.75	Replacement and Repair Guidance and Life Expectancies for Commercial Design Motor Vehicles	CN
MCO 11240.78	Wheeled Tactical Motor Transport Vehicle Maintenance Expenditure Limits	AO
MCO 10260.3	Garrison Mobile (Engineer) Equipment Program	L10
MCO 11262.2	Inspection and Load Testing of Marine Corps Owned Commercial and Tactical Load-Lifting Equipment	A
MCO 11310.10	Consolidated Logistics Order Mobile Electric Power System	E
SL 1-1	Introduction to Stocklist Publications	K
SL 1-2	Index of Authorized Publications for Equipment Support	ZB2
SL 1-3	Index of Publications Authorized and Stocked by the Marine Corps	ZB2
FMFM 3-1	Command and Staff Action	TCA
SI 2005	Series Evacuation of Low Density Equipment	
SI 5600	Series Procedures for Repair/Reporting Depot Secondary Reparable Low Density Items	E
SI 6605-15/1	Evaluation and Disposition of Compasses, Magnetic Unmounted Lensatic	E
SI 8800-15/1B	Repair/Rebuild Components Missile System	BCU
SI 9150-15/2A	Use of CLP on Artillery Weapons	E/AA/B
TI-01592C-15/1	Special Control, Storage, and Disposal Instructions Compasses, Magnetic, Unmounted, Lensatic	E
TI-2005-25/2A	Postsubmersion Salvage Procedures Electronic Equipment	F
TI-2350-14/53A	Oil Analysis Program	AA/AS/AW/BB
TI-2350-25/36A	Maintenance of Submerged Ordnance Tracked Vehicles	BB/SPL
TI-4710-14/1	CR&E Criteria, USMC Equipment	E

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TI-4733-15/1A	Calibration Requirements,	TMDEAB/JA
TI-4733-15/2	Sliding Calibration Interval Program TMDE	AB/JA
TI-4733-15/3B	Retirement of Unstable or Unreliable	AB/JAT MDE
TI-4733-35/4	Calibration Checklist,	TMDEAB/JA
TI-4733-35/5	Calibration Equipment Recommendations MarCor Calibration Program	AB
TI-4733-15/6	TMDE Calibration and Maintenance Support	E
TI-4733-15/7B	Calibration Publications Index	AB/JA
TI-4733-35/8	Marine Corps Standards Exchange Program	AB/JA
TI-4733-39/9	Radiac Instruments Calibration and Maintenance Program	A
TI-4733-15/10	Special Calibration of Torque Wrenches	E
TI-4790 Series	Maintenance Management Information	JB
TI-5104-15/1A	Pub Index MarCor Radiological Safety Affairs	E
TI-5104-15/2A	RASP-Tritium Fire Control Instruments and Artillery	E
TI-6135-15/1	Explosive Hazard Concerning Dry Cell Batteries	AG
TI-6135-15/2	Management and Storage Information for Batteries	BMI
TI-6850-15/1A	Conservation Procedures Antifreeze Solution	E
TI-4700 Series	Temporary Technical Information MarCor Equipment	JA
TI-5340-12/1	Technical Information High Security Lock	E/BN
TI-5600 Series	Publication Information, Marine Corps Equipment	IZ

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TI-6100-15/1A	Neutralizing and Disposing of Storage Batteries Electrolyte	E
TI-6625-15/11	ID for Marking of TMDE AC Power Cords and Equipment Recepticals for Compatibility	E
TI-8000-15/1A	Publications Required for Armory Operations	E/BN
TI-8000-13/2	Technical Guidance for the Unit Ordnance Officer	AA/BN
TI-8005-15/4A	Inspection by Witnessing Officer	E/AA/BN
TI-8005-35/17A	Inscribing U.S. on MarCor Owned Commercial Weapons	E/BN
TI-8005-24/18	Prepackaging Inspection for Serviceability Ordnance Material	E/AA/BN
TI-8005-24/19A	Trigger Pull Measure Small Arms Weapons	AA/BN
TI-8005-24/20C	Prefire Inspection Small Arms Weapons Ordnance Material	AA/BN
TI-8210-14/1	Storage Information Optical Material	AA/BN
TI-8370-15/1	Identification Marking Small Arms	AA/BN
TI-10010-15/1A	Serviceability Standards Chemical Defense Property	E
TI-10010-15/2A	Tech Assist Chemical Defense Program	E
TM-2000-15A	Principle Technical Characteristics Comm-Elect Vol I	A
TM-2000-15/1	Technical Characteristics MC Comm-Elect Vol II	AF
TM-2000-15/4	Power System Reference Manual	AK
TM-4700-15/1E	Equipment Records Procedures	CT
TM-8000-10/1A	PM Indicators for Ordnance Equipment	AA/BN
TM-11240-15/3	Motor Vehicle License Examination Manual Chs 1 and 2	CN
TM-11275-15/3A	Principle Technical Characteristics of MarCor Engineer Equipment	C4

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TM-11310-15/1D	Equipment Used in Fleet Marine Support and Ground Operations	AJH
TM-11310-15/2A	Alternating Current Power Requirements/ Capabilities of Equipment Used by FMF Units in Support of Air Operations	AJH
TM-4120-15/1B	Principle Technical Characteristics of MarCor Military Standard Air Conditioners	CV
TM-6625-15/1A	Electronics Test Equipment Listing	BL
TM-6625045/4	Automotive Test Equipment Operation	AB/SPL
TM-6830-15/1	Gases Compressed Cylinder, Storage and Handling	E
TM-9130-12	Fuel Handling Procedures (Liquid Fuel)	AJ3
UM-4400-15	Organic Property Control Procedures Users Manual (20 Apr 81)	E2
UM-4400-60	Materiel Returns Program (24 Jan 80)	DB
UM-4400-71	Data Control Users Manual Vol 1 & 2 (24 Mar 80)	E5
UM-4400-124	SASSY Using Unit Procedures Users Manual (21 Apr 81)	E23
UM-4400-127	SASSY ADPE-FMF Prompting and Editing (10 Mar 81)	FF
UM-4790-4	MIMMS ADPE-FMF Prompting and Editing (10 Mar 81)	FG
UM-4790-5	FMSS Field Users Procedures Manual (I Oct 83)	L86
NAVSEA OP 2165	Navy Transport Safety Handbook Vol I and Vol II	HI
SECNAVINST 5216.5B	Navy Correspondence Manual	CM
DA PAM 750-1	Commanders Guide of PM Indicators	IW
DA PAM 750-1-3	Preventive Maintenance Guide for Commanders	SPL
DA PAM 750-30	M16A1 Rifle	SPL

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DA PAM 750-3	4Preventive Maintenance Lead Acid Batteries	IW
SB 3-30	Chemical Materiel (other than Class V) Storage Serv	E
FM 1016	General Repair Tents Canvas Web	E
TM-9-237	Welding Theory and Application	AK/AO/AR
TM-9-243	Use and Care of Handtools and Measuring Tools	BH/SPL
TM-9-244	Use, Care and Maintenance of Electric Motors	SPL
TM-9-500	Data Sheets for Ordnance Type Matter	AA
TM-9-1000-202-14	Evaluation of Cannon Tubes	
TM-10-277	Chem Toxicological and Missile Fuel Hand Protect Cloth	SPL
TM-10-8400 201-23	-General Repair Procedures for Clothing and Individual Equipment	
TM-11-486-11	Comm-Elect System Engineering References and Abbreviations	SPL
MCM, Chapt. 4	Marine Corps Manual 1980	JJ
NAVMAT P-10470	Safety Equipment Manual	EE
NAVMAT P-5100	Safety Precautions for Shore Activities	EE
NAVSO P-1000	Navy Comptrollers Manual Vol IV	GJ
TM-10120-15/1	Uniform Fitting and Alteration Procedures	
OPNAVINST 5530.13	Dept of the Navy Physical Security Instruction for Sensative Conventional Arms Ammunition and Explosives (AA & E)	H/I

MAINTENANCE MANAGEMENT SOP

APPENDIX B

REQUIREMENTS FOR MAINTENANCE MANAGEMENT OFFICERS  
AND STANDING OPERATING PROCEDURES

1. Heads of activities listed below shall appoint a Maintenance Management Officer and publish a Maintenance Management Standing Operating Procedure in accordance with paragraph 1000.3:

Commanding Officer, The Basic School

Director, Communication Officers School

Head, Maintenance Division, Facilities Department

Head, Support Division, Facilities Department

2. The Director, Development Center, is exempt from appointing a Maintenance Management Officer and publishing Standing Operating Procedures, however, compliance with applicable maintenance management programs (e.g., tool control, calibration, etc.) set forth by higher headquarters is required.

3. The Director, Education Center, is exempt from the requirement of appointing a Maintenance Management Officer and publication of Standing Operating Procedures. Heads of activities within the Education Center (i.e., AWS, CSS, SNCO Academy, etc.) will adhere to the policies and procedures established within this SOP. Direct liaison between Education Center activity heads and support and staff officers of this Command is authorized.

4. Units not required to appoint MMOs will designate the commodity manager to perform maintenance management functions and will establish commodity/unit SOPS.

## APPENDIX C

### ANNUAL REPORT OF TEST, MEASURE, AND DIAGNOSTIC EQUIPMENT, INSTRUCTIONS AND FORMAT

1. GENERAL. Annually, during the month of April, activity heads will provide an up-to-date report, utilizing the format of Figure C-1, of all test and measuring equipment, to include radiac equipment, to the Commanding General (Code C 043-5) EMB. All test and measuring equipment on hand in an activity must be included. The current editions of MCO 4733.1 and TI-4733-15/1 list those publications which contain detailed procedures relative to the operation of the Marine Corps Test, Measuring and Diagnostic Equipment Calibration and Maintenance Program. The current edition of TI 473335/9 lists the calibration intervals of radiac equipment. Care should be exercised that TMDE, which are components of other end items, e.g., tool kits, sets, and chests, are included. Figures C-2, C-3, and C-4 of the current edition of TI 4733-35/9 provide sample reports.

#### 2. Instructions for Completing MCDEC Form 4440/5 (LR), Report of Test and Measuring Instructions

- a. Date. Date report is prepared/submitted.
- b. Submitting Activity. Name, address and RUC of activity head preparing/submitting the report.
- c. Measurement Area. Check the appropriate block. A separate sheet must be prepared for each measurement area.
- d. Item Number. Sequential numbers beginning with 1 for each measurement area.
- e. Item Nomenclature. Name of item (see sample sheets for examples).
- f. Model Number. Military designation, AN nomenclature, manufacturer's model number, or military or commercial designation number. Use military designation in preference to commercial numbers.
- g. Serial Number. As marked on item. If item has no serial number, insert "none." If the item has been assigned a locally established serial number for control purposes, enter that number.
  - (1) Calibrated. Insert "Calib."
  - (2) Special Calibration. Insert "Special Calibration."
  - (3) Calibration Not Required. Insert "CNR."

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(4) Inactive. Insert "Inact."

(5) No Label. Insert "none."

h. Label Requested and Specific Requirements. To complete these columns, the use of the equipment in the activity must be evaluated. Paragraph 2004.7 of this Order provides information on determining the type of calibration required. Maximum use should be made of "Special Calibration" and "Calibration Not Required." Make one of the following entries for each instrument:

LABEL REQUIRED

SPECIFIC REQUIREMENTS

SC	List ranges and functions which are used.
INACT	Leave blank.
CNR	State reason for CNR status, i.e., not used for quantitative measurements, not required by current directives, etc.
CALIB	Leave blank (indicates full calibration required).

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INVENTORY OF TEST AND MEASURING INSTRUMENTS  
FORMAT

MCDEC 4440/5 (LR)

COPY TO: CG, MCDEC (C 049)

FIGURE C-1.--INVENTORY OF TEST AND MEASURING INSTRUMENTS.

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## APPENDIX D

### INSTRUCTIONS FOR THE PREPARATION OF THE EQUIPMENT REPAIR ORDER, NAVMC 10245

#### 1. NAVMC Form 10245, Equipment Repair Order (ERO)

a. Instructions for the maintenance and preparation of the ERO are contained in the current edition of TM 4700-15/1. The instructions contained therein must be modified for use at this Command since no Command activities are loaded to the MIMMS Automated Information System (AIS).

b. The purpose of an ERO is to request the performance of equipment maintenance to include modification, calibration and LTIs on all mission essential ground equipment within an activity's organic maintenance capability. It is used for transmitting work to higher echelons for maintenance and for recording and reporting the services performed in its accomplishment. Maintenance personnel will use the ERO in all instances where either repair parts or resources are required in the performance of requested maintenance. This form is not used to request or record either operator maintenance (first echelon) or depot level maintenance (fifth echelon). However, it will be used to evacuate equipment requiring second or higher echelon maintenance when the supporting activity head for second through higher echelon maintenance is other than the owning activity head. It will also be used by first echelon maintenance personnel in conjunction with the Equipment Repair Order Shopping List (EROSL) to order SL-3 components in accordance with prescribed procedures. A second echelon ERO will be opened for induction of TMDE into the calibration control center.

#### (1) Responsibilities

(a) Preparing Activity Head. The preparing activity head may be the equipment owner, the equipment user (e.g., the equipment is on temporary loan), or the equipment custodian as in the case of the maintenance shop personnel evacuating the equipment to the next higher echelon. The preparing activity head is responsible for initial preparation of an ERO, to include completion of the heading and discription of work to be performed. Those items marked with an asterisk (\*) symbol will be completed by the preparing activity head during the initial preparation of the ERO. The "Description of Work" block requires entries by both the preparing and maintenance activity.

(b) Maintenance Activity Head. A maintenance activity head will receipt for the equipment by completing the "Accepted By," "Date," and "ERO Nr." blocks and will complete those other blocks as indicated in subparagraph 1b(2) below. Maintenance activity personnel will enter information on work performed as maintenance actions are completed and will close out the ERO. If

## MAINTENANCE MANAGEMENT SOP

it becomes necessary for a maintenance activity head to evacuate the equipment to the next higher echelon, the maintenance activity personnel will initiate a new ERO, completing those items required of the preparing activity head and using its ERO number as the request number.

(2) ERO Composition. An ERO consists of sheets of self-carbonizing paper of four different colors (white, pink, green and yellow).

(a) The white copy is the original.

(b) The yellow copy, after it is signed by the authorized individual of the maintenance activity, is an owning activity receipt for the equipment while the equipment is at the intermediate maintenance activity (IMA).

(c) The pink copy is the administrative copy and will be attached to the original during the repair cycle.

(d) The green copy is the shop copy. It contains the original signature of the individual drawing the equipment from the maintenance shop and, thus, becomes the shop receipt when the equipment is returned.

(3) Preparation Instructions. An ERO will be completed as indicated below (refer to figure D-1a). The numbers in the blocks of the ERO heading correspond to the 80 card columns (CC) for the "0" card. The printed numbers in the blocks at the bottom of the ERO correspond to the CC's for the "9" card. Entries preceded by an asterisk (\*) symbol are completed by the preparing personnel. (Figure D-1b is a completed sample ERO.)

(a) ERO Number. Enter a five digit ERO number assigned by the maintenance activity personnel performing the repairs.

(b) Serial Number Turned in if Different From Below. This item pertains to category C, D, P, H, and some 0 EROS. Enter the serial number of the item turned in if different from the serial number entered in accordance with subparagraph 1b(3)(k) below. Enter N/A if not applicable.

(c) Accepted By (Signature). Enter the signature of the person accepting the equipment for the maintenance activity performing the repairs. The signature acknowledges the transfer of custody for the equipment. No entry is required for deferred ERO's until the equipment is actually delivered to the maintenance activity. If the individual accepting the equipment for work is also the person having the authority to authorize the work, this entry is optional.

(d) Date Received In Shop (DRIS). Enter the julian date on which the equipment is accepted by the maintenance activity

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performing the repairs. No entry is required for deferred EROs until the equipment is actually accepted by the maintenance activity. This date serves as the DRIS. This date is entered by the maintenance activity.

(e) Operational Readiness Float (ORF). No entry is required.

\* (f) Organization Doing Repairs. Enter the name of the maintenance activity where the repairs are performed to which the equipment is being evacuated for repairs. Entry is optional if the owning activity head is performing repairs. (see figure 2-1.)

\* (g) DEST. AC. Enter the activity code (AC) of the activity entered in the "Organization Doing Repairs" block if equipment is being evacuated to a higher echelon. Otherwise, leave blank.

\* (h) Request Number. Enter the ERO number assigned by the original preparing activity head. If the original preparing activity head is also the maintenance activity head performing repairs, an entry is not required as the "ERO Number" block will be utilized.

\* (i) Deadline Control Date (DCD). Enter the DCD (the julian date on which the equipment was actually deadline). An entry is not required if the equipment is not actually deadline. An entry is required for Category Code M or P EROS.

\* (j) Echelon (ECH). Enter the echelon of maintenance (1, 2, 3, or 4) o indicate which echelon is performing repairs. (A "1" is entered when ordering SL-3 components).

\* (k) Serial Number. Enter the serial number of the equipment, if assigned. The serial number is obtained from the equipment data plate. As an example, the serial number for communication vehicles (AN/MRC ) is taken from the data plate, not the registration number of the vehicle. When the serial number is placed on the ERO, the last ten characters of the serial number will be utilized, including symbols, exactly as on the equipment. The serial number will be right justified (i.e., the last number of the serial number will always appear in CC 35). Spaces, however, will be eliminated. For example, equipment serial number 2109 8A 421-8 would be placed on the ERO as 2109BA421-8. In those cases where a USMC serial number has not been assigned, enter the serial number used for supply accounting. Secondary reparable floats entering components into maintenance activities will enter the serial number of the component. If more than one item is being batch entered for repairs or LTIS, enter a zero (0) in this block; and list the serial numbers for custody control purposes, if applicable, in the "Description of Work" block. For Category Code "C" EROs, the serial number of the end item will be placed in the block marked "Serial Number Turned In if Different than Below." If the item has no serial number, enter a zero (0).

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- \* (l) Job ID. Enter the two character code found in the current edition of the Marine Corps Users Manual, UM 4790-5, which describes the type of repair action and location where the repair is being performed. This entry is required for activities of this Command.
- \* (m) Quantity. Enter the number of items to be repaired under this ERO number. Ensure that the field is filled (e.g., a quantity of "1" is entered as "01" and a quantity of "10" is entered as "10").
- \* (n) Required Delivery Date (RDD). Enter the Julian date the equipment is required by the owning/using activity head.
- \* (o) Owning Organization. If the ERO is being prepared by the using activity, enter the designation (short noun) of the activity (may be the parent organization) who is accountable for the item/equipment (e.g., TBS, OCS, COS). If the ERO is being prepared at the intermediate maintenance activity (IMA), enter the designation of the IMA (e.g., OMB or EMB) in parentheses.
- \* (p) Owner 9 AC. Enter the AC of the activity head accountable for the equipment.
- \* (q) Authorized By (Signature). Enter the signature of the individual authorizing the work. Ensure that the individual has the authority to sign an ERO for the Command, and that the authority extends to the priority assigned. In those cases where the priority is upgraded (e.g., Priority 14 to Priority 07), an additional signature and date will be required if the original signer did not have authority to assign the upgraded priority in accordance with the current edition of MCO 4400.16.
- \* (r) Date. Enter the julian date on which the ERO is signed by the individual authorizing work.
- \* (s) Defect. Enter the defect code found in the current edition of UM 4790-5 which best describes the nature of the required maintenance actions. This entry is required to be completed by MCDEC activities.
- \* (t) PRI (Priority). Enter the priority assigned to the ERO. The priority is established in accordance with the current edition of MCO 4400.16.
- \* (u) ID Number (Item Designator). Enter the system ID number. Ensure the alpha character of the ID number (9653A) is the correct designation for the specific item of equipment. For category code C, 0, F and H EROS, enter the end item ID number. When a category code D ERO is utilized, enter the ID number of the D-coded secondary reparable in this field.

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\* (v) Nomenclature. Enter the short noun nomenclature and/or model number of the equipment being submitted for repair.

\* (w) Category Code. Circle the applicable category code.

<u>Code</u>	<u>Definitions</u>
MReadiness-	reportable equipment, FMF unit, critical repairs.
N	Noncritical maintenance to readiness or nonreadiness reportable end items.
P	Nonreadiness-reportable, critical repairs.
X	Readiness-reportable, requiring critical repairs that do not deadline the item but degrade its operational capability.
C	Component of an end item which deadlines or precludes the end item from operating at its full capacity. Category code C EROs are primarily for intershop use. The status of the end item (deadlined or operational/readiness or nonreadiness-reportable) must be reported through the use of a category code M, N, P or X EROS. Category code C is used to distinguish between repair for return to the end item/user as opposed to return to the supply system of a reparable (maintenance float) as in the case of category code O, F, H and D. There are cases when the category code C will apply to the intershop of end items.
D	Depot reparable.
F,H	Secondary reparable, as indicated by the items recover ability code.
K	Calibration only.
O	Secondary reparable, shop overhead and preexpended bin items.
S	SL-3 components for end items. (A zero (0) must be entered in the first character of the Job ID code.)

1 An ERO must be opened to obtain shop overhead materials to include pre-expended bin items. (Use category code O.)

2 An ERO may be opened by activity heads to obtain SL-3 components. (Use category code S.)

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3 The number of EROs for equipment which may be opened on a specific end item will be:

a When an end item is deadline, a category code M ERO (for readiness-reportable items) or a category code P ERO (for non-readiness-reportable items) will be opened. When the item has been repaired to the extent that it is no longer deadline, the category code will be changed or the ERO will be closed.

b When an item requires critical repairs, but the repairs are of such a nature as to not deadline the item but to degrade its operational capability, a category code X ERO will be opened.

c Only one ERO (category code M, X, or P) can be opened on a specific end item at one time at each echelon of maintenance. When an item is evacuated to a supporting maintenance activity, category code M, X, or P EROs will be opened only on a one for one basis with the category code M, X or P organizational EROs.

d More than one category code ERO, other than category code M, X, or P may be opened on a specific item of equipment within the level of maintenance or for evacuation. However, since an ERO is basically a control document, care should be exercised in opening multiple EROs.

e Under no circumstances will more than one ERO that serves as a receipt for an item be opened to evacuate the equipment.

4 Category code 0 EROs are used for requisition of preexpended bin and shop overhead materials. When such materials are associated with a specific type of equipment, the ID number of the equipment type will be used. When category code 0 EROs are used for shop overhead/preexpended bin materials, the first character of the Job ID code will be "7."

5 Category code S EROs will be used to allow the requisition of operator/crew materials (SL-3 components). When such materials are associated with a specific type of equipment, the ID number and serial number of the equipment end item will be used. When category code S EROs are used for SL-3 components, the first character of the Job ID code will be Zero (0).

6 When critical repairs on a category code X ERO have been completed and the equipment still requires noncritical maintenance, the category code must be changed to reflect the new status.

7 The category code C allows an activity head to evacuate major components of an end item for maintenance to maintenance shops at the same echelon or to a higher echelon for

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maintenance. Additionally, it allows maintenance shop personnel to intershop end items at the same echelon due to the restraint of one category code M, X or P ERO at the same echelon.

8 Equipment is considered deadline if it is not mission capable (i.e., cannot perform its designed combat mission due to the need for critical repairs). Routine modifications, or lack of noncritical repair parts (e.g., fenders and windshields) will not in themselves cause a reportable deadline condition. It is the responsibility of the organization which owns an item to determine its deadline status and to add the item to deadline, if appropriate. It is also the responsibility of the organization which owns an item to delete the item from deadline, if it had previously been in a deadline status. It is the responsibility of the organization which is repairing a deadline item to report any change in the condition of that item (e.g., NMCM to NMCS).

### NOTE

"Critical parts" are defined as those parts or secondary reparable which preclude an item from performing its intended mission of shooting, moving or communicating and which require second through fifth echelon expenditure of maintenance man-hours. "Noncritical parts" are those parts or accessories which affect an item's ability to do its intended mission but does not preclude it from shooting, moving or communicating.

(x) Job Status (STAT). No entry required.

\* (y) Job Order Number (JON). Enter the JON to be charged or the repair parts and maintenance of the equipment.

(z) Shop Section (Sect). No entry required.

\* (aa) Released From Investigation (Signature). Enter the signature of the person authorized to release equipment that has been under investigation. This applies to equipment involved in an accident or other type of event requiring an investigation. This will indicate to the head of the maintenance activity that the equipment is no longer required for investigation and repairs/ disposition procedures may commence. Enter N/A if not applicable.

(bb) Disposition-Reference. Enter the reference documentation if the item has been declared unserviceable. If the ERO has been opened for more than one item (batching)" the reference documentation will be indicated in the "description of work" block by serial number, unless the disposition instructions apply to all of the batched items.

\* (cc) Owner's phone number. Enter the telephone number of the individual to be notified upon completion of requested services.

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\* (dd) Secondary Reparable (Sec Rep) National Stock Number (NSN). Enter the NSN of the item turned in for repair. Enter N/A if not applicable. (An entry is required if the ERO category code is F, H, or D, and if the category code is 0 for a secondary reparable.)

(ee) Remarks. Enter any other information considered appropriate by the originator or head of the maintenance activity. Items to be entered are:

1 Old and new meter readings when odometers or hour meters are replaced.

2 End item ID number for category code D items.

NOTE

Blocks (ff) through (kk) will be left blank.

(ff) Item Number. Enter the item number of each task performed in numerical sequence. This number may correspond to a task number in a Technical Manual (TM). If so, the TM must be referenced in the "Description of work" block. When utilizing task numbers from a TM during the performance of scheduled maintenance, only list those tasks where actual work is performed (i.e., tighten, adjust, test, lubricate, remove, replace, etc.). Do not include tasks such as check, inspect, etc. If during a task which calls for observation, a work task is performed (i.e., replace air filter if unserviceable), this work task should be indicated on the ERO.

(gg) Description of Work. The preparing activity will enter a brief description of each task or symptoms of the failure. The maintenance activity will indicate the tasks as performed. These will correspond to the defects listed in the lower portion of the ERO. When all available parts are placed on the equipment and this does not complete the task, this will be indicated in general terms with labor hours in the appropriate column (e.g., replaced R-1, replaced door handle, etc.). Although procedures for a scheduled maintenance may require actions such as lubricate, replace oil filter, adjust brakes, etc., which may be identified as defects, these actions will be included in the PM defect code. If during the PM an area is found to be defective, such as bad brake linings, these defects will be listed after the PM task, and defect code(s) and labor hours will be indicated.

NOTE

When an entry for PM services is listed in the description of work block on the ERO, and the PM has been completed, the date the PM was performed must be entered. This date is required for completion of the NAVMC 10561.

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(hh) Labor (Hours). Enter the total labor hours to the nearest one-tenth of an hour required to repair each defect listed in the "Description of work" block (e.g., replaced R-22, R-23, and C-12; 9.5, etc.).

(ii) Mechanic (Signature). The mechanic/repairman performing the repair of the defect will affix his/her signature. If more than one mechanic/repairman performs the repair, the senior supervisor will affix his/her signature as the responsible individual.

(jj) Status. Enter changes to equipment and/or ERO status as they occur e.g., short tech., repairs in progress, repairs complete, etc.). This will provide a history of the equipment on the ERO. It is not necessary to indicate all of the changes of status that occur the same day.

(kk) Code. Enter the job status code that corresponds to the job status entered in the status column, as described in subparagraph (oo). Entries in this column are mandatory.

(ll) Status Date. Enter the Julian date the change in status occurred.

(mm) Non-SASSY Parts, Nomen, NSN or Part Number. Enter the NSN, part number, or nomenclature of any repair parts used to perform the work required/requested.

(nn) Qty (Quantity). Enter the quantity of repair parts used.

(oo) Cost. Enter the total cost for the specific repair parts used.

(pp) Civ Labor Chg (Civilian Labor Charge). Enter the total civilian labor charge to the nearest cent. Enter the cents in 18 and 19.

(qq) Non-SASSY Parts Charge. Enter the total cost of all parts obtained from any sources to the nearest cent. Enter the cents in 26 and 27. This is the total of the column described in subparagraph (oo) above.

(rr) Date Closed. Enter the julian date the ERO was returned to the owning activity head.

(ss) Mil Labor Hr (Military Labor Hours). Enter the total military labor hours used during the repair of equipment to the nearest one-tenth of an hour. Enter tenths of an hour in 36. This is the total (minus civilian labor) of the column described in subparagraph (hh) above.

(tt) Close Stat (Status). No entry required.

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(uu) No. Unser. No entry required.

(vv) EOTC (Equipment Operating Time Code). Enter the appropriate EOTC for the equipment repaired. The valid entries are "D" for days, "R" for rounds, "H" for hours and "M" for miles. To use hours, the equipment must have an hour meter from which to get the reading. In order to use miles, the equipment must have an odometer from which to get the reading. The EOTC may be obtained from the ID Standards File or the daily process report. No entry is required for secondary reparables or items not on the ID Standards File. This entry is required for MCDEC activities.

(ww) Primary Meter Reading. Enter the primary meter reading at the time the equipment was repaired. The meter reading must be compatible with the primary EOTC. The meter reading is taken to the nearest whole mile/hour. An entry is required for items with a primary EOTC of "H" or "M." If the primary meter is replaced during the repair cycle, enter the new meter reading and ensure that one of the defect codes reflect the fact that the meter was changed. The old and new meter readings are entered in block (ee).

(xx) Task Data Fields. No entry required.

(yy) Inspected By (Signature) Date. Enter the signature of the individual performing the quality control inspection on the repaired equipment and the julian date the item was inspected.

(zz) Owner Notified-Name Date. Enter the name of the individual in the owning unit who was notified to pick up the equipment/ERO due to work completion. Also, enter the date notified. If the individual is notified more than once, make additional entries under the first entry. If the activity head performing the maintenance actions is also the owner, this entry is optional.

(aaa) Delivered To (Signature) Date. Enter the signature of the individual authorized by the owning activity head to receipt for the equipment upon completion of work. Enter the date of the signature. Since this signature is proof of return of the equipment, the copies of the ERO will be arranged in such a manner as to obtain the original signature on the green copy (shop copy) of the ERO.

(4) Disposition. Upon acceptance of an ERO and equipment by maintenance activity personnel, the yellow copy of the ERO is returned to the originator as a receipt. Upon completion of required maintenance services, the yellow copy is returned to the maintenance activity and the original (white copy) will be returned to the using/owning activity to be filed in the equipment record jacket/folder, where they will be retained for one year. Upon return of the equipment to the owning/using activity, the yellow copy will be destroyed by the maintenance activity personnel. In the case of deferred/activity recall EROS, careful local procedures must be

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established to ensure proper accountability of the equipment and use of the yellow copy as a receipt after the maintenance activity personnel sign the "accepted by" block of the ERO. The green copy of the ERO will be retained in the files of the maintenance activity for a minimum of one year, unless the maintenance activity head and the custodian of the equipment records is the same, in which case retention of the green copy is not mandatory. The pink copy may be disposed of in accordance with local procedures.

(a) When equipment is evacuated to a higher echelon of maintenance, an open ERO must exist in both the evacuating activity and the activity to which the item was evacuated.

(b) An ERO initiated to authorize preventive maintenance (PM) service will normally be closed when the PM has been completed. However, if during the accomplishment of the PM, it is determined that the equipment requires corrective maintenance (CM), the PM service will be completed as far as possible and practical; and CM action will continue on the same ERO. If the nature of the CM action and type of equipment requires an upgraded priority or essential change of mission, changes will be made by crossing through the original entry; entering a new priority, as appropriate; and receiving a new authorization signature from the ERO originator, if required. The authorizer will initial any changes. If the required CM results in a change of category, the category code will be changed as required.

(c) If scheduled PM services requiring an ERO become due while an item is undergoing CM, the PM services accomplished will be recorded on the CM ERO, thus providing a record for updating PM schedules and precluding the necessity for opening another ERO.

(d) Required CM on equipment for which a deferred ERO has been submitted may be performed using the deferred ERO as the authorizing document.

### NOTE

A deferred ERO is one which has been accepted by a maintenance unit to allow it to obtain the necessary parts and/or schedule the equipment for modification, calibration, routine CM and/or PM. When properly used, it allows better scheduling of scarce maintenance resources and utilization/upkeep of equipment items. The use of job status "unit recall" should not be confused and used interchangeably with "short parts."

Procedures to be followed when establishing a "unit recall" job status are:

1 When performance of work by a higher echelon maintenance activity is required, the unit must prepare an ERO and request that it be placed in a "unit recall" status.

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2 When the item is accepted for a "unit recall", all copies of the ERO will be held by the maintenance activity and the operable item will be retained by the requesting unit.

3 Equipment on a "unit recall" will be scheduled into the maintenance activity as soon as possible after receipt of all necessary materials. If the equipment is not available when called for by the higher echelon maintenance activity (i.e., the equipment is currently being utilized and its loss would degrade the user's operational commitments), the job status will be changed at the supporting maintenance activity from "unit recall" to "awaiting equipment." The owning unit will continue to show job status "unit recall" until the item of equipment is delivered to the supporting maintenance activity, at which time the job status will be changed to "evacuated to higher echelon" (EVAC HECH).

(e) An ERO will be prepared for each end item requiring maintenance, except in those instances where equipment is normally submitted in "batched" or large quantities (i.e., 782 gear, brake shoes, rifles, pistols, non-depot secondary reparable, LTIs and prerange fire checks). All items in the batch must have the same ID number. Individual serial numbers, where applicable, of those items submitted in a batch will be listed as set forth in paragraph 1b(3)(k) above. Principle end items (Class VII) of equipment will not be batched for either modification application or PM, nor will mission-essential items (readiness reportable) be batched for PM. Any TAM Type II items may be batched for PM.

(f) Copies of the maintenance forms utilized by other services/fifth echelon (depot) maintenance such as the U.S. Army DA-2407, in the accomplishment of maintenance services under an ISSA (Interservice Support Agreement), or a transcription of an ERO must be filed in the equipment record jacket or folder and maintained there the same length of time as an ERO. The transcription should contain all information available that is required on an ERO/EROSL.

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Figure D-1a.--Equipment Repair Order, NAVMC 10245

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Figure D-1b.--Equipment Repair Order, NAVMC 10245

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APPENDIX E

INSTRUCTIONS FOR THE PREPARATION OF THE ERO  
SHOPPING/TRANSACTION LIST, NAVMC 10925 (REV 12-79)

1. NAVMC Form 10925 (REV 12-79), ERO Shopping/Transaction List (EROSL)

a. Information. Instructions for the maintenance and preparation of the EROSL are contained in the current edition of TM 4700-15/1. The instructions provided are directed primarily at activities supported by the MIMMS Automated Information System (AIS). The instructions contained therein must be modified for use at this and other Commands whose activities are not loaded to the MIMMS AIS.

b. Purpose. The EROSL was designed to be used in conjunction with the ERO to requisition, receipt for, cancel and record partial issues and credits of repair parts and secondary reparable associated with ground equipment undergoing repair. Although the EROSL is primarily for mits supported by the MIMMS AIS, other units are directed to use this form to standardize procedures and to train maintenance/supply personnel in the use of this form.

c. EROSL Composition. The EROSL is configured in a pad of 100 sheets. The form is self-carbonizing to permit its preparation in the desired number of copies. The front and back covers of the pad are printed with the instructions and are to be used as templates for completing the EROSL.

d. Preparation Instructions

(1) The equipment custodian is responsible for the initial preparation of the EROSL, to include the ERO number, unit, date, initials and date on which maintenance personnel prepare the EROSL, shop section and reference source in the blanks provided (see Figure E-1). The custodian will circle the correct material usage code; "6" is for SL-3 components; "7" is for secondary reparable and corrective maintenance; "8" is for modifications; and "9" is for preventive maintenance.

(2) The custodian will prepare an original and a minimum of three copies. Some custodians may wish to prepare additional copies for their "special purposes." Distribution of the three copies will be as follows:

(a) One copy will be annotated with the supply clerk's initials and dated. It will be returned to the custodian immediately.

(b) One copy will be returned to the custodian after submission of the requisitions. This copy will have the document numbers issued by supply personnel.

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(c) One copy will be retained by the supply section as authorization for requisitioning the items.

(d) The original will be retained by supply while requisitions are outstanding. After all items have been received, the original will be returned to the custodian and filed with the associated ERO. The EROSL will be retained for the same length of time as its associated ERO.

(3) Three sets of initials and dates are required on the EROSL. Dates are required as a management tool to assist in identifying requisitioning delays. The first set of initials is that of the technician/mechanic. This should be by a person from the maintenance facility who is performing the repairs and is authorized to requisition parts. The second set of initials ensures that the EROSL has been received by supply. Finally, the third set of initials ensures that all parts have been requisitioned.

(4) The instructions for completing the "4" transaction (requisitioning parts) are detailed below for the card columns required on the EROSL (refer to the "template" for supply requests).

(a) Transaction Code (cc 1). Enter "4."

(b) ERO Number (cc's 2-6). Enter the ERO number to which the EROSL refers.

(c) National Stock Number (NSN) (cc's 11-23). Enter the appropriate NSN of the part(s) to be ordered/issued.

(d) Quantity (cc's 24-26). Enter the quantity of the part(s) to be ordered/issued.

(e) Activity Address Code (AAC) (cc's 28-32). Enter the AAC for the local source at supply.

(f) Date (cc's 33-36). Enter the julian date on which the EROSL is submitted to supply. This will be completed by the supply clerk.

(g) Document Number (cc's 37-40). The document serial number is completed by the supply activity in conjunction with the mechanic/technician. The first digit (cc 37), which represents the material usage code, is obtained from the mechanic/technician at the time the EROSL is presented to supply. The final three digits are completed by supply in accordance with local unit supply SOPS.

(h) Priority (cc's 42-43). Enter the appropriate priority of the part(s) to be ordered. The priority will be the same as the priority of the ERO which it supports.

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(i) Supplementary Address (cc's 44-48). This block is used only to enter locally assigned distribution codes. This block may be left blank.

(j) Unit of Issue (U/I) (cc's 49-50). Enter the U/I of the part(s) to be ordered.

(k) Job Order Number (JON) (cc's 51-64). Enter the assigned JON to which part(s) costs are to be charged.

(l) Demand Code (DMD) (cc 66). Enter the appropriate DMD which reflects whether the demand for the repair part is recurring (R), or nonrecurring (N) (e.g., generally, a repair part is recurring and a modification kit is nonrecurring).

(m) Not Operationally ReadX Supply (NORS) (cc 67). Enter "N" for a NORS requisition or "E" for an ANORS (anticipated NORS) requisition. An "N or "E" entry may be used only with a priority 03 and/or 06 requisition.

(n) Advice Code (cc's 68-69). Enter the proper advice code from the current edition of MCO P4400.126, the template or UM 4790.5, if a special situation exists.

(o) Part Name and Weapons System Code (Wsc) (cc's 70-79). Enter the nomenclature, left justified (first character in cc 70 of the part(s) to be ordered. Units not supported by the FMSS must enter the WSC in the last two digits of the part name block (cc's 78-79). This code, if applicable, is found in the Marine Corps Table of Authorized Material (TAM).

(p) Action Code (A/C) (cc 80). Enter the appropriate A/C for the desired transaction. An "A" will be used for a new demand (entry) and a "C" will indicate a change to an existing demand.

(5) The EROSL will be completed, when required, in accordance with the instructions for receipts, by using the template for supply receipts ("B" card transaction). The receipt entries are made by the supporting supply section and should be made on the original EROSL just below the original "4" transaction. The original may be matched up with the duplicate or any required blank copies in order to put the information on all copies of the same forms.

e. Disposition. Upon completion of the required information by the originator, the EROSL is delivered to the supporting supply activity. One copy is receipted (initialed) and immediately returned to the originator. The supply activity will review the EROSL, assign a document number and any other pertinent supply data required. A second copy of the EROSL containing the document number is returned to the originator. The supply activity retains the original and one

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copy of the EROSL until all transactions have been completed. At that time the original EROSL is returned to the originator and one copy is filed with the supply activity. The original EROSL will be attached to the associated closed ERO and filed in the equipment record jacket/file. The unit supply officer will assign document numbers within two working days after all EROSLs with priorities other than 03 or 03 NORS. Document numbers will be assigned immediately to EROSLs with an 03 or 03 NORS priority and two copies of those EROSLs will be returned to the waiting maintenance activity representatives.

f. Equipment Repair Order parts bins shall be used to store parts waiting to be placed on the equipment. All small parts for the same ERO are kept together in the same ERO bin, identified by the ERO number. Large parts which cannot be stored in the bin will be labeled with the appropriate ERO number. A shop copy of the EROSL will be kept in the ERO bin.

(1) Upon receipt of parts which will not be installed immediately, annotate the shop copy of the EROSL as to the date/quantity of the items received and the ERO bin location.

(2) If parts are removed from the bin for installation, the date/quantity removed will be annotated on the shop's copy of the EROSL.

(3) Annotation will be done by the technician/mechanic initialing in the left margin adjacent to the ERO number.

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LEGEND FOR THE SAMPLE EROSL

Note: Items identified with an asterisk (\*) symbol are optional.

<u>Entry Heading</u>	<u>Remarks</u>
ERO	ERO for which items are requisitioned.
UNIT	Unit requesting items.
DATE	Julian Date of ERO.
MAINT DATE/UNIT	Date Mechanic/Technician prepared the EROSL and initials of preparer.
SUPPLY DATE/INIT	Julian Date EROSL was received at Supply.
DATA CLERK DATE/INIT *	Julian Date items were requisitioned.
MATERIEL USAGE CODE	Circle applicable code.
SHOP SECTION	Section needing items.

LETTERED SPACES

A-I	Reserved for applicable publications from which information was obtained.
J&K*	Source of Supply and Address, if known (for commercial purchases).
M*	Enter the end item application, e.g., LVTP-7, M60 Tank, M60 MG, etc.
N*	Enter the serial number of the end item.
O	As may be required.
p*	Write in the fiscal year, e.g.l. FY-81, FY-82, etc.
Q	Enter the signature of person authorized to approve requests for the unit.
R	Enter the signature of authorized representative receiving completed layettes. A signature here constitutes the receipt of all material on requisition for that ERO. Partial

## MAINTENANCE MANAGEMENT SOP

issue will be initialed on the EROSL by the individual picking up the item(s). Each item must be initialed.

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Figure D-1.--Equipment Repair Order Shopping List (EROSL)

# MAINTENANCE MANAGEMENT SOP

## APPENDIX F

### SUBJECTS ESSENTIAL FOR MAINTENANCE MANAGEMENT TRAINING

1. The subjects listed herein are considered essential to the activity maintenance management program. Included are areas within each subject which should be stressed. Training in each subject should be tailored to the trainees (i.e., operator, technician, direct supervisor, or staff supervisor). The list is not to be considered as all inclusive; additional subjects determined to be necessary by the activity head shall be included in the activity training program.

a. Marine Corps Technical Publications. Includes Technical Manuals, Technical Instructions Modification Instructions, Supply Instructions and Stock Lists. Acquisition, maintenance and use of the publications should be stressed. The activity publications control system should be explained in detail.

b. Lubrication Instructions (LI)/Lubrication Orders (LO). The purpose and use of LI/LOs should be stressed. Proper lubricants and lubrication procedures are a must in any preventive maintenance program.

c. Calibration Program. Purpose of calibration, responsibilities, and documentation required by the activity calibration control program.

d. Modification Program. Requirement and authority for modification of equipment and activity modification control program.

e. Preventive Maintenance. Requirement, scheduling methods, documentation and preventive maintenance indicators.

f. Corrective Maintenance. Program established within the activity for accomplishing required corrective maintenance, evacuation procedures, etc.

g. Echelons of Maintenance. Responsibilities of each echelon and echelon authorized by activity T/O.

h. Equipment Records. Operational and maintenance records and responsibilities and procedures for completing forms.

i. Inspections. Use and types.

j. Safety. Operational and maintenance safety requirements and practices.

k. Quality Deficiency Reports and Quality Reliability Reports. Purpose, proper completion of forms and submission of reports.

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1. Report of Discrepancies in Support Publications. Use of the NAVMC 10772.
  - m. Shop Organization and Management.
  - n. Control of Tools, Support and Test Equipment.
  - o. Load Testing. Policy and procedures for load testing.
  - p. Equipment Preservation Procedures.
  - q. Supply Support. Use of forms, priority designators, urgency of need designators, control of repair parts, preexpended bins, and validation requirements and procedures.
  - r. Maintenance Related Programs. Purpose, use and procedures of those maintenance related programs set forth in Chapter 8 of this Order.
  - s. Financial Management. Budget process and responsibilities within the activity.
  - t. Secondary Reparable Program. Purpose and procedures for use.
  - u. Maintenance SOPs and Desk Top Procedures. Purpose, requirements, preparation and use.

# MAINTENANCE MANAGEMENT SOP

## APPENDIX G

### INSPECTION CHECKLIST

1. Information. Inspection checklists provide specific direction for the preparation and conduct of inspections. Furnished to an activity to be inspected, the checklist becomes a guide for preparation for the inspection. During the inspection, the checklist serves as an organized and comprehensive listing of questions to ensure the completeness of the inspection. Following the inspection, the completed checklist provides the basis for evaluating and determining the maintenance posture of the activity for identifying deficiencies requiring corrective action.

#### 2. Preparation

a. Maintenance inspection checklists should be prepared to support formal Command Inspections. They may also be prepared to assist in informal inspections that are conducted to ensure coverage of all maintenance related areas and functions within an activity on a continuing basis. Either type of checklist should take into consideration the characteristics of the activity to be inspected and be prepared in sufficient detail to ensure the objectives of the inspection are satisfied. Inspection checklists should be evaluated and updated, as necessary, following each inspection.

b. Variations in maintenance organization and operations may exist between individual activities within an activity. Where this occurs, either separate checklists should be prepared for each activity or the checklist should be prepared in parts which are applicable to the designated activity(ies).

c. Checklists should be organized in logical sections composed of questions that address the specified area of maintenance. All questions should be stated in clear, concise language to avoid misunderstanding by either the inspector or the activity being inspected and stated in the order that best facilitates the conduct of the inspection. References, as appropriate, should be made to applicable regulations.

3. Sample Checklist. The checklist is provided, to assist activities in the development of checklists suitable to their own operations. This checklist should be used as a guide only. The detail and scope of individual activity checklists should vary according to the requirements of the activity.

MAINTENANCE MANAGEMENT SOP

MARINE CORPS DEVELOPMENT AND EDUCATION COMMAND  
Inspection Checklist  
for  
Maintenance Management

ORGANIZATION: \_\_\_\_\_

DATE: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

1. This checklist is designed to serve the following purposes:

a. Provide the inspectors with a tool to determine the overall maintenance management program of the unit.

b. Provide the inspector with the necessary information to prepare a formal report.

c. Provide the inspector with ready information to conduct an effective after inspection brief to the Commanding Officer/Activity Head.

d. Provide the Commanding Officer/Activity Head with a detailed document showing the maintenance management posture of the unit, to include recommendations when appropriate.

e. Provide the Commanding Officer/Activity Head with a detailed document which may be used as a training device and/or checklist to assist in maintaining an effective maintenance management program.

2. The unit MMO should file the formal report of the inspection so that it may be used by other agencies in conducting inspections and analysis of the unit.

TEAM MEMBERS:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR:

\_\_\_\_\_

MAINTENANCE MANAGEMENT SOP

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MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
A. MAINTENANCE MANAGEMENT ADMINISTRATION			
A-1. Has a Maintenance Management Officer been assigned in writing? (MCO P4790.2A Par. 1004.3a)	_____	_____	_____
NAME/RANK _____			
DATE ASSIGNED _____			
A-2. Is the unit performing maintenance in accordance with T/O or special authorization? (MCO P4790.2A Par. 1003.1g) (Copy of Letter)	_____	_____	_____
A-3. Have discrepancies noted on previous inspection reports been corrected? (MCO P4790.2A Par. 4008.4c)			
a. Last CG dated _____	_____	_____	_____
b. Last IG dated _____	_____	_____	_____
c. Last FSMAO dated _____	_____	_____	_____
A-4. Is there a current published unit Maintenance Management SOP? (MCO P4790.2A Par. 1004.4a)	_____	_____	_____
Date Published _____			
A-5. Does the SOP state the Commander's maintenance policy? (MCO P4790.2A Appendix A Chap. 2)	_____	_____	_____
A-6. Does the SOP provide Command responsibilities? (MCO P4790.2A Appendix A Chap. 1)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
A-7. Does the SOP delineate responsibilities and establish procedures in the below areas? (MCO P4790.2A Appendix A)			
a. Shop Operations (Par. 2003)	___	___	___
b. Quality Control (Par. 5006)	___	___	___
c. Publication Control (Par. 7000/7001)	___	___	___
d. Modification Control (Par. 2008)	___	___	___
e. Calibration Control (Par. 2009)	___	___	___
f. Quality Deficiency Reports (Par. 5006)	___	___	___
g. Supply Reconciliation Procedures (Par. 3006)	___	___	___
h. Preexpended Bin (PEB) Operations (Par. 3002)	___	___	___
i. Preventive Maintenance (Par. 2000)	___	___	___
j. Support of New Equipment (Par. 3004)	___	___	___
A-8. Is the SOP available to, and understood by, Maintenance Management Personnel? (MCO P4790.2A Appendix A Par. 2b)	___	___	___
A-9. Does the SOP require desk top procedures and turnover files? (MCO P4790.2A Appendix A Par. 1003.1)	___	___	___
A-10. Does the SOP require an effective training program for Maintenance and Maintenance Management Personnel? (MCO P4790.2A Par. 2003.2c)	___	___	___
A-11. Does the SOP establish a consistent and workable program for the upkeep, maintenance, and positive control of tools, sets, kits and chests? (MCO P4790.2A Appendix A Par. 3007)			

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
A-12. Does the SOP establish inspection requirements? (MCO P4790.2A Appendix A Par. 5000)	___	___	___
A-13. Does the SOP define supply in support of equipment maintenance. (MCO P4790.2A Appendix A Par. 3000)	___	___	___

MAINTENANCE MANAGEMENT SOP

YES    NO    N/A

B. MAINTENANCE AND MAINTENANCE MANAGEMENT TRAINING

B-1. Does the unit have an established annual training plan with the number of hours scheduled for the following maintenance, maintenance management and MOS training? (MCO P4790.2A Par. 2003)

\_\_\_\_\_

Maintenance Management

Technical Publications

\_\_\_\_\_

Modification Control

\_\_\_\_\_

Calibration Program

\_\_\_\_\_

Maintenance Related Programs

\_\_\_\_\_

Preventive Maintenance Indicators

\_\_\_\_\_

Use of NAVMC Form 10772

\_\_\_\_\_

Equipment Record Procedures

\_\_\_\_\_

Maintenance

Use of Technical Manuals and other

Technical Publications

\_\_\_\_\_

Tool Care and Control

\_\_\_\_\_

Quality Deficiency Report

\_\_\_\_\_

Conducting Limited Technical Inspections

\_\_\_\_\_

Test and Support Equipment Use

\_\_\_\_\_

Trouble Shooting and Diagnostic

\_\_\_\_\_

Techniques

ERO and EROSL Preparation

\_\_\_\_\_

Safety

\_\_\_\_\_

Shop Procedures

\_\_\_\_\_

Quality Control

\_\_\_\_\_

Use of Pre-expended Bins

\_\_\_\_\_

ERO Parts Bin Procedures

\_\_\_\_\_

Operator

Equipment Records

\_\_\_\_\_

Preventive Maintenance Services

\_\_\_\_\_

Safety

\_\_\_\_\_

B-2. Does the unit have an established training schedule with associated lesson plans to support the MOS training program for Maintenance Personnel? (MCO P4790.2A Par. 2003.2b)

\_\_\_\_\_

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
B-3. Are newly joined and inexperienced personnel teamed with skilled/experienced maintenance personnel in technical duty assignments? (MCO P4790.2A Par. 2003.2f)	_____	_____	_____
B-4. Does the unit conduct maintenance/maintenance management training for supervisors? (MCO P4790.2A Par 2003.2b)	_____	_____	_____
B-5. Are training attendance records maintained and appropriate entries made in the individual's training record for: (MCO P4790.2A for 2003.2d)			
a. Scheduled Classroom Training?	_____	_____	_____
b. On-The-Job Training?	_____	_____	_____
c. Cross Training?	_____	_____	_____
B-6. Are current standard lesson plans used for scheduled training (MCO P4790.2A Par. 2003.2d)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
C. <u>RECORDS AND REPORTS</u>			
C-1. Are EROs properly prepared and maintained? (TM 4700-15/1)	_____	_____	_____
C-2. Are current authorization letters for who may sign EROs by priority, maintained by the MMO and IMA? (MCO 4400.16-TM4700-15/1)	_____	_____	_____
C-3. Are equipment records properly completed and maintained? (TM 4700-15/1)	_____	_____	_____
C-4. Is the unit opening an ERO for all main- tenance actions which consume maintenance resources? (TM 4700-15/1 Chap. 2)	_____	_____	_____
C-5. Is the unit properly completing the ERO? (TM 4700-15/1)	_____	_____	_____
C-6. Does the MMO centrally coordinate the unit's Quality Deficiency Report program? (MCO P4790.2A Par. 1004)	_____	_____	_____
C-7. Do the unit's maintenance personnel under- stand the requirement for QDRs and the procedures for their submission? (TM 4700- 15/1 Chap. 2)			
C-8. Do the unit's maintenance personnel under- stand the requirement for Quality			

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
Reliability Reports and the procedures for their submission? (TM 4700-15/1 Chap. 2)	___	___	___
C-9. Are completed EROs and EROSLs filed in the equipment record jackets for one year? (TM 4700-15/1 Chap. 2)	___	___	___
C-10. Are SROs filed in equipment record jackets? (TM 4700-15/1 Chap. 2)	___	___	___

MAINTENANCE MANAGEMENT SOP

YES      NO      N/A

D. PUBLICATION CONTROL

D-1. Is the Table of Allowance for Publications (TAP) reviewed at least semiannually and changes/corrections submitted as required? (MCO P5600.31F, MCO P4700.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

TAP Number \_\_\_\_\_

Date of TAP \_\_\_\_\_

D-2. Does the unit's TAP provide for adequate technical publications? (MCO P4790.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

D-3. Does the unit's internal distribution (NAVMC 10975) provide for getting required publications to the commodity areas? (MCO P4790.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

D-4. Are procedures established within the unit for effective MMO/S-1/Supply/Commodity Manager publications control? (MCO P4790.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

D-5. Are procedures established for determining the total type and number of publications required? (MCO P4790.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

D-6. Does the unit correctly use inventory control forms to establish allowances and control publications? (MCO P4790.2A Appendix B)      \_\_\_      \_\_\_      \_\_\_

MAINTENANCE MANAGEMENT SOP

- |   | <u>YES</u> | <u>NO</u> | <u>N/A</u> |
|---|------------|-----------|------------|
| D-7. Do cognizant personnel understand:<br>(MCO P5600.31F)  |            |           |            |
| a. Use of the SL 1-2 and SL 1-3?  | ___        | ___       | ___        |
| b. Procedures for requisitioning publications?  | ___        | ___       | ___        |
| c. Requisitioning status follow-up procedures?  | ___        | ___       | ___        |
| d. Review and submission of the backorder?  | ___        | ___       | ___        |
| e. Validation listing?  | ___        | ___       | ___        |
| D-8. Are procedures established for the use of NAVMC 10772 for reporting and recommending changes to publications? (MCO P4790.2A Par 2008.7b) | ___        | ___       | ___        |
| D-9. Does the unit's TAP provide for the below distribution codes/lists? (MCO 5600.45B)   | ___        | ___       | ___        |

<u>CODE</u>	<u>SUPPLY</u>	<u>MMO</u>	<u>C/E</u>	<u>ORD</u>	<u>MT</u>	<u>ENG</u>	<u>NBC</u>	<u>ARM</u>	<u>AUTH</u>	<u>O/H</u>
E		XX	XX	XX	XX	XX	XX	XX		
F	XX		XX	XX	XX	XX	XX	XX		
K			XX	XX	XX	XX	XX	XX		
X			XX	XX	XX	XX	XX	XX		
E		XX	XX	XX	XX	XX	XX	XX		
E2		XX	XX		XX	XX	XX	XX		
E5		XX	XX	XX	XX	XX	XX	XX		
E7		XX	XX	XX	XX	XX	XX	XX		
E8			XX	XX	XX	XX	XX	XX		
E10		XX	XX	XX	XX	XX	XX	XX		
E14							XX			
E15										
E30		XX	XX	XX	XX	XX	XX	XX		
K3		XX	XX	XX	XX	XX	XX	XX		
K1		XX					XX			
K6		XX	XX	XX	XX	XX	XX	XX		
K7		XX	XX	XX	XX	XX	XX	XX		
CM		XX	XX	XX	XX	XX	XX	XX		
CT	XX									
EE	XX		XX	XX	XX	XX	XX	XX		
FX		XX	XX	XX	XX	XX	XX	XX		
GI	XX	XX	XX	XX		XX	XX	XX		

MAINTENANCE MANAGEMENT SOP

<u>CODE</u>	<u>SUPPLY</u>	<u>MMO</u>	<u>C/E</u>	<u>ORD</u>	<u>MT</u>	<u>ENG</u>	<u>NBC</u>	<u>ARM</u>	<u>AUTH O/H</u>
GJ		XX	XX	XX	XX	XX	XX	XX	
HJ		XX	XX	XX	XX	XX	XX	XX	
IN		XX	XX	XX	XX	XX	XX	XX	
IR		XX	XX	XX	XX	XX	XX	XX	
IT		XX	XX	XX	XX	XX	XX	XX	
IV		XX	XX	XX	XX	XX	XX	XX	
IW	XX								
IZ									
JA									
JB									
ZB			XX	XX	XX	XX	XX	XX	
ZB2							XX		
ZB3									
ZB4			XX	XX	XX	XX	XX	XX	
ZB5			XX	XX	XX	XX	XX	XX	
ZB6	XX	XX	XX	XX	XX	XX	XX	XX	
L10		XX	XX	XX	XX	XX	XX	XX	
AB									
AG	XX	XX		XX	XX		XX	XX	
AH		XX	XX	XX	XX	XX	XX	XX	
AJ		XX	XX	XX	XX	XX	XX	XX	
BE	XX	XX	XX			XX	XX		
BL	XX	XX		XX	XX	XX	XX	XX	
BM	XX	XX			XX	XX	XX	XX	
BN	XX	XX	XX		XX	XX	XX		
BL1	XX	XX		XX	XX	XX	XX	XX	
BM1	XX	XX		XX	XX	XX	XX	XX	
BM2	XX	XX		XX	XX	XX	XX	XX	
IE	XX	XX	XX	XX	XX	XX	XX	XX	
L97	XX	XX	XX	XX	XX	XX			
L86									
E13			XX	XX	XX	XX	XX	XX	
E23	XX	XX	XX		XX	XX	XX	XX	

NOTE: "XX" denotes not normally required to have publications on this distribution.

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
D-10. Are there any obsolete technical publications or orders located in the existing libraries? (MCO P4790.2A Appendix B)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
<u>E. MAINTENANCE RESOURCES</u>			
E-1. Has the unit identified Table of Equipment (T/E) deficiencies? (MCO P4400.150 Par. 2001)	_____	_____	_____
E-2. Are T/E deficiencies on order? (MCO P4400.150 Par. 2001)	_____	_____	_____
E-3. Is the unit following maximum maintenance cycle time procedures? (MCO P4790.2A Par. 3003.5)	_____	_____	_____
E-4. Are effective procedures established for the inventory of tool sets, chests and kits? (MCO P4790.2A Appendix D)	_____	_____	_____
E-5. Do the inventories reflect the current condition of the sets, kits and chests? (MCO P4790.2A Appendix D)	_____	_____	_____
E-6. Are shortages of tool kits, sets and chests on order? (MCO P4790.2A Appendix D)	_____	_____	_____
E-7. Are there adequate related resources on hand for performing the maintenance mission of the unit, i.e., personnel, tools, publications, etc.? (MCO P4790.2A Chap. 2)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
F. <u>CALIBRATION</u>			
F-1. Does the unit have an effective calibration control program? (MCO P4790.2A Par. 2005.2)	_____	_____	_____
F-2. Have specific calibration control points been designated within the unit? (MCO P4790.2A Appendix D)	_____	_____	_____
F-3. Has all the unit's equipment requiring calibration been identified and recorded on calibration control cards or charts? (MCO P4790.2A Appendix D)	_____	_____	_____
F-4. Is equipment promptly turned in for calibration when due? (MCO P4790.2A Par. 3005.2)	_____	_____	_____
F-5. Does equipment requiring calibration have current labels affixed? (MCO P4790.2A Appendix D)	_____	_____	_____
F-6. Is "Special Calibration" used whenever possible? (MCO P4790.2A Appendix D)	_____	_____	_____
F-7. Are control cards or charts annotated with the ERO number when equipment is evacuated to the calibration facilities? (MCO P4790.2A Appendix D)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
F-8. Are cards or charts annotated with the date of when next intermediate PM service is required on equipment designated "Inactive" and "Calibration not Required"? (TM 4700-15/1)	___	___	___
F-9. Are the yellow copies of the ERO maintained on equipment that is at the calibration facilities? (MCO P4790.2A Appendix D)	___	___	___

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
G. <u>MODIFICATION</u>			
G-1. Does the MMO monitor the unit's modification control program? (MCO P4790.2A Par. 1004.1)	_____	_____	_____
G-2. Are modification control records properly maintained by both the modification control points and the MMO? (TM 4700-15/1)	_____	_____	_____
G-3. Have specific modification control points been designated within the unit? (MCO P4790.2A Par. 3004)	_____	_____	_____
G-4. Have all applicable modification instructions been identified for each equipment type? (MCO P4790.2A Par. 3004)	_____	_____	_____
G-5. Are EROs and associated supply documents open on equipment requiring modification? (MCO P4790.2A Par. 3004)	_____	_____	_____
G-6. Are modifications being completed in accordance with the "time compliance period" paragraph of the modification instruction? (TM 4700-15/1)	_____	_____	_____
G-7. Is the modification completion information being submitted to the MMO in order to update the number modified on the MMos modification control record? (MCO P4790.2A Par. 3004)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
<u>H. PREVENTIVE AND CORRECTIVE MAINTENANCE</u>			
H-1. Does the unit have a scheduled preventive maintenance program? (MCO P4790.2A Par. 3002)	_____	_____	_____
H-2. Are appropriate records established and maintained to support the scheduled maintenance programs? (MCO P4790.2A Par. 3002)	_____	_____	_____
H-3. Is scheduled preventive maintenance being performed in a timely manner? (MCO P4790.2A Par 3002.1)	_____	_____	_____
H-4. Are required PM services performed on equipment even though it is Deadlined or Evacuated to a supporting maintenance activity? (MCO P4790.2A Par. 3002)	_____	_____	_____
H-5. Do equipment records indicate that scheduled maintenance was performed? (MCO P4790.2A Par. 3003.2, TM 4700-15/1)	_____	_____	_____
H-6. Is equipment being evacuated to a higher echelon of maintenance in a timely manner? (MCO P4790.2A Par. 3003)	_____	_____	_____
H-7. Do LTIs indicate that daily PM services and operation checks are being conducted by the operator or crew? (MCO P4790.2A Par. 3002.3)	_____	_____	_____

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
H-8. Are appropriate technical manuals used to determine PM frequency and requirements? (MCO P4790.2A Par. 3003.3)	___	___	___
H-9. Based upon LTIS, is there equipment in service which requires corrective maintenance?	___	___	___
H-10. Do unit procedures provide for opening an ERO/EROSL in advance of a scheduled PM in order that expendables/parts will be on hand when the PM comes due?	___	___	___
H-11. Do the Job Status Codes on the open EROs correctly reflect the status of the equipment in the maintenance cycle? (TM 4700-15/1)	___	___	___
H-12. Are proper procedures and test equipment being used to isolate the cause of equipment malfunctions? (MCO P4790.2A Par. 3001.3)	___	___	___
H-13. Do maintenance personnel use proper research methods and technical publications to requisition secondary reparable and repair parts? (MCO P4790.2A Par. 3001.3)	___	___	___
H-14. Is there a viable quality control program established within the unit? (MCO P4790.2A Par. 3001.3)	___	___	___

MAINTENANCE MANAGEMENT SOP

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
I. <u>SAFETY</u>			
I-1. Are annual load testing and safety inspections being performed on all load lifting equipment (MCO P4790.2A Par. 3006.4, MCO 5100.8B)	___	___	___
I-2. Are hazardous areas clearly marked? (MCO P4790.2A Par. 2003.7, MCO 5100.B)	___	___	___
I-3. Are designated areas assigned for storage of hazardous materials, i.e., paint, fuel, oil, solvents, gas cylinders, and other flammables? (MCO P4790.2A Par. 2003.7, MCO 5100.B)	___	___	___
I-4. Are there adequate protective clothing and devices available for personnel performing hazardous jobs, i.e., gloves, safety shoes, eye protectors, ventilators, helmets, etc.? (MCO P4790.2A Par. 2003.7, MCO 5100.B)	___	___	___
I-5. Are fire bills posted? (MCO P4790.2A Par. 2003.7, MCO 5100.8B)	___	___	___

MAINTENANCE MANAGEMENT SOP

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
J.	<u>SUPPLY</u>			
J-1.	Are pre-expended bins authorized and managed properly? (MCO P4790.2A Par. 2004.7, UM 4400-15)	___	___	___
J-2.	Are there repair parts on hand that are not associated with an ERO or SRO? (MCO P4790.2A Par. 2004.5, UM 4400-15)	___	___	___
J-3.	Have procedures been established for a biweekly validation of supply requirements between the maintenance activity and its supply source? (MCO P4790.2A Par. 2004.3, UM 4400-15)	___	___	___
J-4.	Is the shop overhead ERO being used to initiate requirements for tools, PEB and other shop supplies? (MCO P4790.2A Par. 2004.8)	___	___	___
J-5.	Are adequate control procedures established for ERO parts bins? (MCO P4790.2A Par. 2004.4)	___	___	___