

BO P4790.1

8 Jun 1983

# MAINTENANCE MANAGEMENT

## STANDING OPERATING PROCEDURE

### M M S O P



MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA







UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

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BASE ORDER P4790.1B

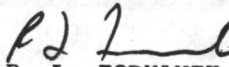
From: Commanding General  
To: Distribution List

Subj: Standing Operating Procedures for Maintenance Management

Ref: (a) MCO P4790.2B (NOTAL)

Encl: (1) LOCATOR SHEET

1. Purpose. To establish maintenance management policy and procedures in accordance with the reference.
2. Cancellation. BO P4790.1A
3. Summary of Revision. This revision contains a substantial number of changes and should be completely reviewed.
4. Recommendations. Recommendations for changes to this Order are invited. Submit via the appropriate chain of command for evaluation.
5. Certification. Reviewed and approved this date.

  
R. L. FORMANEK  
Chief of Staff

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STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Received	Date Entered	Signature of Person Entering Change





STANDING OPERATING PROCEDURES FOR MAINTENANCE MANGEMENT

CONTENTS

CHAPTER

	INTRODUCTION
1	DEFINITIONS, EXEMPTIONS, AUTHORITY, RESPONSIBILITIES AND GENERAL INFORMATION
2	MAINTENANCE OPERATIONS
3	SUPPLY AND FISCAL SUPPORT
4	TRAINING
5	INSPECTIONS AND VISITS
6	FACILITIES
7	PUBLICATIONS AND DIRECTIVES
8	MAINTENANCE RELATED PROGRAMS
	INDEX



# STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

## INTRODUCTION

0001. PURPOSE. This Manual has as its purpose the promulgation of policies, procedures and instructions for the implementation and administration of maintenance management within Marine Corps Base, Camp Lejeune.

0002. STATUS

1. Requirements in this Manual are binding on all Marine Corps Base, Camp Lejeune organizations.

2. Any deviation from instructions contained in this Manual must be authorized by the Commanding General, Marine Corps Base, Camp Lejeune (Assistant Chief of Staff, Logistics).

0003. SCOPE. This Manual contains instructions for the implementation and administration of maintenance management procedures.

0004. RESPONSIBILITY. Commanding Officers of all Base organizations are responsible for implementation of, and adherence to, the policies, procedures and instructions contained in this Manual.

0005. ORGANIZATION

1. This Manual is organized in chapters using Arabic numbers, which are sequentially listed in the overall contents page.

2. Each chapter is organized in paragraphs using four-digit Arabic numbers, which are listed sequentially in the applicable chapter contents page.

3. The index is organized alphabetically, showing the location of subject matter by paragraph.





STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 1

DEFINITIONS, EXEMPTIONS, AUTHORITY, RESPONSIBILITIES  
AND GENERAL INFORMATION

	<u>PARAGRAPH</u>	<u>PAGE</u>
INTRODUCTION TO MAINTENANCE MANAGEMENT . . . . .	1000	1-3
COMMAND RESPONSIBILITIES . . . . .	1001	1-3
STAFF RESPONSIBILITIES . . . . .	1002	1-4
STANDING OPERATING PROCEDURES . . . . .	1003	1-6
DESK-TOP PROCEDURES AND TURNOVER FILES . . . . .	1004	1-7





# STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

## CHAPTER 1

### DEFINITIONS, EXEMPTIONS, AUTHORITY, RESPONSIBILITIES AND GENERAL INFORMATION

#### 1000. INTRODUCTION TO MAINTENANCE MANAGEMENT

##### 1. Marine Corps Integrated Maintenance Management System (MIMMS)

a. The current editions of Marine Corps Order P4790.1, MIMMS Introduction Manual, and Marine Corps Order P4790.2, MIMMS Field Procedures Manual, establishes the policies and procedures for the management of ground equipment maintenance in the Marine Corps. The objective of MIMMS is to establish a uniform maintenance management system for all ground equipment, which includes but is not limited to, wheeled, tracked, and stationary equipment, small arms, crew-served weapons, electronic devices, communications and plant equipment thus enhancing the readiness of the Marine Corps.

b. This Order provides a comprehensive guide for the performance and management of ground equipment maintenance within Marine Corps Base, Camp Lejeune organizations. Command and Staff relationships in the accomplishment of equipment maintenance programs are established. Equipment maintenance and maintenance management functions are identified, procedures provided for their accomplishment, and responsibility assigned the appropriate organization. Relationships between MIMMS and other Marine Corps programs that are maintenance related are identified and explained.

2. For the purpose of implementation of MIMMS at this command, the term "Organization" as used in this Order shall be considered synonymous with "school, department, division, branch, detachment, unit and battalion," and the term "Commander" synonymous with "manager, head, officer in charge, and commanding officer".

##### 3. Applicability

a. Procedures established herein are applicable to all equipment listed in the Table of Authorized Material (TAM), NAVMC 1017, and the garrison mobile equipment listed in the current edition of MCO 4440.27. Also included is commercial type equipment owned by the Government, on which second echelon or higher maintenance is authorized.

b. Specifically excluded from the provisions of this Order are appliances used in government quarters, push-type lawn mowers, field printing equipment, and non-tactical food service equipment.

#### 1001. COMMAND RESPONSIBILITIES

1. The requirement to maintain material in a condition to perform its assigned function is an essential responsibility of the commander. Each commander shall personally ensure that a sound and continuing equipment maintenance program exists within the organization and that proper maintenance procedures are followed in accordance with applicable directives.

2. To ensure that an effective equipment maintenance program is established and implemented, commanders must:

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

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

c. Assign responsibilities to individuals to accomplish or ensure accomplishment of the necessary maintenance.

d. Allocate sufficient time to accomplish required maintenance.

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

f. Provide the impetus for the program through an active, continuing, and visible display of command emphasis and interest.

3. Subordinate organizational commanders shall advise their senior commanders of any equipment maintenance problems which cannot be resolved through normal channels and procedures.

4. Requirement for a Maintenance Management Officer

a. The Marine Corps Base, Camp Lejeune Maintenance Management Officer (MMO) will be assigned as a Special Staff Officer under the cognizance of the Assistant Chief of Staff, Logistics. Assignment of the Base MMO will be made by Base Special Order with a copy of the appointing order retained in the office of the Assistant Chief of Staff, Logistics.

b. Units, to include detached or separate commands, which are authorized second echelon or higher maintenance capability for more than one commodity area, shall assign an Officer or Staff Noncommissioned Officer (SNCO), in writing, as the Maintenance Management Officer (MMO) to provide supervision over equipment maintenance. In units that do not meet the above criteria, the individual designated as the commodity manager shall perform the maintenance management functions and need not be assigned as the MMO.

c. Assignment of MMO's to organizations below the base level will be accomplished in writing by commanders maintaining equipment to which this Order is applicable. A copy of the appointing order/letter shall be submitted to the Assistant Chief of Staff, Logistics (Attn: MMO) upon initial appointment and on each occasion when a new MMO is appointed. The Base MMO will maintain a file of appointment orders/letters on all current organizational MMO's.

1002. STAFF RESPONSIBILITIES

1. Assistant Chief of Staff, Manpower. Serves as the principal Base Staff Officer on matters pertaining to personnel management, including the assignment and replacement of maintenance personnel.

2. Assistant Chief of Staff, Training

a. Serves as the principal Base Staff Officer on matters pertaining to training, including equipment maintenance training.

b. Coordinates with the Base MMO and the Civilian Personnel Officer (CPO) on the training of maintenance personnel.

3. Assistant Chief of Staff, Logistics

a. Serves as the principal Base Staff Officer on matters pertaining to logistics including those matters relating to equipment maintenance.

b. Coordinates the logistics functions, inclusive of all commodity areas of all Base organizations.

c. Exercise staff cognizance over the Base Maintenance Management Program.

4. Assistant Chief of Staff, Comptroller

a. Serves as the principal Base Staff Officer on matters pertaining to internal control, guidance and management of appropriated funds.

b. Periodically evaluates direction over budgeting, accounting, and expenditures of funds; provides technical guidance, coordination, and advice on matters pertaining to efficient utilization of appropriated funds.

5. Base Adjutant

a. Assists the MMO to ensure correct administrative procedures are used within commodity area directive systems.



b. In conjunction with the MMO, reviews the Table of Allowance for Publication to ensure technical publications, orders, and directives are received by the Base in sufficient quantity to maintain an effective maintenance effort within each commodity area.

6. Civilian Personnel Officer (CPO)

a. Serves as a special staff assistant to the Commanding General under the cognizance of the Assistant Chief of Staff, Manpower with respect to civilian personnel matters.

b. Advises and gives direct assistance in obtaining available training for equipment maintenance personnel for both on-the-job (OJT) training, and for off station training classes for updating skills.

c. Provides supervisory training classes for managerial personnel.

d. Coordinates the training requirements of management and provides advice regarding travel and related funds for civilian employees.

7. Base Safety Officer (BSafO)

a. Serves as a special staff officer to the Commanding General under the staff cognizance of the Assistant Chief of Staff, Manpower with respect to matters dealing with safety.

b. Coordinates with the Base MMO on all safety aspects of equipment maintenance operations.

8. Base Maintenance Management Officer (MMO)

a. Serves as a special staff officer to the Commanding General, under the staff cognizance of the Assistant Chief of Staff, Logistics, on all matters pertaining to organizational and support equipment maintenance management.

b. Advises the Commanding General on all matters related to equipment maintenance and the impact of the Base Maintenance effort on equipment readiness.

c. Plans, organizes, and coordinates the use of all equipment maintenance activities and resources.

d. Prepares the Base's Maintenance Management Standing Operating Procedures (MMSOP).

e. Coordinates and assists commodity maintenance officers in establishing maintenance production and quality control programs, and centrally coordinates the Base Quality Deficiency Report (QDR) program.

f. Initiates action to correct or change technical publications in accordance with current directives, and ensures that required allowances of currently effective technical publications are on hand and properly distributed and that personnel are trained in their use.

g. Monitors the MIMMS Logistics Program to ensure timely and accurate maintenance-related report submission.

h. Plans and implements inspections for the Commanding General to ensure effectiveness of the maintenance effort.

i. Ensures proper recording and upkeep of maintenance information in maintenance records.

j. Coordinates the overall conduct of the Base's equipment maintenance program.

### 9. Maintenance Officer/Commodity Manager

- a. Prepares Standing Operating Procedures for the maintenance operation within the commodity.
- b. Serves as technical advisor to the Commanding Officer on all commodity/maintenance functions.
- c. Plans maintenance work based on the maintenance level authorized, priority, availability of parts, tools, equipment, level of personnel experience, and operational situation.
- d. Schedules, directs, and supervises the care, inspection, and maintenance of assigned equipment.
- e. Inspects equipment periodically, and ensures that the required records are maintained properly and performed maintenance conforms to established standards.
- f. Has the staff responsibility for the operation and functioning of MIMMS within the respective areas of responsibility.
- g. Plans and coordinates a program of resources management, to include:
  - (1) Training and use of maintenance personnel.
  - (2) Availability of tools and support equipment.
  - (3) Availability and use of technical data and maintenance facilities.
  - (4) Maintenance funding and contract maintenance.
  - (5) Use of spares and repair parts.
  - (6) Accurate submission of equipment and resource data.
- h. Uses the maintenance data to evaluate equipment performance and maintenance production.
- i. Acts as liaison with internal and external agencies on maintenance related programs.
- j. Establishes maintenance production and quality control programs.
- k. Carries out the commodity area's calibration, preventive and corrective maintenance, modification, and publication control programs.

### 1003. STANDING OPERATING PROCEDURES (SOP)

1. Need for Uniform Procedures. Maintenance and maintenance management SOP's are required to establish the Commander's policy, assign responsibility for certain tasks, and document standardized procedures to be followed in those areas where standardization is possible. SOP's provide for the orderly accomplishment of assigned tasks and ensure continuity of operations. Organizational SOP's should expand, as necessary, on the general guidelines established in publications and directives issued by higher authority and adapt those guidelines to the peculiarities of the activity.

#### 2. Requirement for SOP's

a. Organizations which perform organic 1st and 2nd echelon and/or supporting maintenance in a centralized maintenance facility will publish a shop maintenance SOP, setting forth procedures to be used to facilitate the flow of work in the shop and instructions on the accomplishment of maintenance management as it relates to the organization. Appendix A of the current edition of MCO P4790.2 sets forth the minimum requirement which must be addressed in the shop maintenance SOP.

b. Commanders of those organizations which possess ground equipment on their organic property accounts, or are assigned selected equipment for their use from



another Base organization but are not authorized maintenance beyond 1st echelon, will prepare an SOP which addresses the command's policy and procedures for preventive maintenance, modification records, and procedures for evacuating the equipment to a supporting maintenance organization aboard the Base.

c. A current copy of each organization's SOP will be forwarded to the Base MMO.

#### 1004. DESK-TOP PROCEDURES AND TURNOVER FILES

##### 1. Requirement

a. Standing Operating Procedures (SOP's) assign responsibilities for certain tasks and provide guidance for their accomplishment. However, SOP's do not provide the detailed information necessary for day-to-day accomplishment of the tasks. Desk-top procedures and turnover files provide the who, what, where, when, why, and how information required to perform the assigned function. Proper use of desk-top procedures and turnover files will alleviate the adverse results which are caused by the temporary absence or the transfer of personnel, i.e., lack of expertise and continuity in day-to-day operations.

b. Desk-top procedures will be prepared for each billet involving administrative and management functions within the equipment maintenance program, to include:

(1) All personnel tasked with completing the records prescribed by the current edition of TM 4700-15/1.

(2) Training NCO's.

(3) Technical publications librarians.

(4) All personnel involved in Blanket Purchase Agreements.

(5) Shop supply personnel.

(6) Personnel tasked with input to the Equipment Status Report.

(7) Toolroom personnel.

(8) Dispatchers.

(9) Shop shipping and receiving personnel.

(10) Quality control inspectors.

c. Turnover files will be maintained by all commodity managers and subordinate supervisory personnel.

d. Desk-top procedures/turnover files will be continuously reviewed for completeness and updated as required. The following minimum requirements must be accomplished by organizational commanders or their designated representatives:

(1) All desk-top procedures/turnovers files will be reviewed and certified as current at least once each twelve months.

(2) When practical, desk-top procedures/turnover files for personnel scheduled for transfer/reassignment will be reviewed and certified as current within 30 days prior to the transfer/reassignment.

e. SOP's will specify billets for which desk-top procedures and turnover files are required.

##### 2. Items to be Included in Desk-Top Procedures

a. Job assignment.

b. List of current reference material pertaining to the assigned function.

- c. Procedures for carrying out required duties.
- d. Telephone numbers of individuals who might need to be contacted.
- e. Reports required.
- f. Examples of properly completed forms used in assigned functions.

3. Items to be Included in Turnover Files

- a. Title of the billet.
- b. To whom the individual occupying the billet reports and incumbent billets subordinate thereto.
- c. Mission of the billet (broad billet responsibilities).
- d. Functions involved in accomplishing the mission (principal action taken).
- e. Tasks and basic operations regularly performed in accomplishing specific functions.
- f. Publications and directives which are pertinent to the billet.
- g. List of required reports and dates of submission.
- h. Relationship with activities both in and outside the official chain of command, including official liaison and coordinating functions. Brief statement concerning the type of matters on which these agencies are consulted.
- i. Personnel contacts within or outside the command, listing telephone numbers and/or addresses. The purpose served by contact will be included.
- j. Miscellaneous information should be included, e.g., administrative or operational procedures peculiar to the billet, such as dual responsibility for certain functions or limitations in responsibility or authority within particular functions.
- k. Short resume's of past projects considered unusually important, a status report of each pending project, and a brief outline of projects considered for future implementation.

STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 2

MAINTENANCE OPERATIONS

	<u>PARAGRAPH</u>	<u>PAGE</u>
MAINTENANCE POLICY . . . . .	2000	2-3
ASSIGNMENT OF OPERATIONS . . . . .	2001	2-3
ALLOCATION OF MAINTENANCE TRAINING/PERFORMANCE TIME . . . . .	2002	2-3
SHOP OPERATIONS . . . . .	2003	2-3
EQUIPMENT THAT EXCEEDS MAINTENANCE CAPABILITIES . . . . .	2004	2-4
PREVENTIVE MAINTENANCE (PM) . . . . .	2005	2-4
EQUIPMENT MODIFICATION . . . . .	2006	2-5
MODIFICATION CONTROL PROGRAM . . . . .	2007	2-5
GARRISON MOBILE EQUIPMENT (GME) MODIFICATION CONTROL . . . . .	2008	2-6
EQUIPMENT CALIBRATION . . . . .	2009	2-6
CALIBRATION CONTROL PROGRAM . . . . .	2010	2-7
RECORDS AND REPORTS . . . . .	2011	2-8
CONTACT TEAM MAINTENANCE . . . . .	2012	2-11
SAFETY . . . . .	2013	2-11







# STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

## CHAPTER 2

### MAINTENANCE OPERATIONS

#### 2000. MAINTENANCE POLICY

1. The organization shall accomplish required maintenance on assigned equipment within authorized echelons of maintenance in accordance with applicable orders and technical publications.
2. Equipment requiring maintenance beyond the organizational echelon of maintenance shall be evacuated to the supporting maintenance facility expeditiously.
3. The maintenance process and the relationship of maintenance production to information flow as it pertains to equipment status reporting will be standard among all Base Organizations performing 2nd echelon or higher maintenance. Appendix F, of the current edition of MCO P4790.2, will be used as standard procedure for shop supervision/commodity managers.
4. A detailed inspection of equipment entered into the maintenance cycle and requisition of known faulty repair parts and components shall be accomplished within 10 days from the date the equipment enters the maintenance facility for repair.
5. Shop Maintenance SOP's will address the maintenance phases and ensure that the functions outlined in paragraph 3001, of MCO P4790.2 are accomplished.

#### 2001. ASSIGNMENT OF OPERATORS

1. A specific operator/crew will be assigned to principle end items of equipment for the performance of operator maintenance on such equipment. Where necessary, operators may be assigned responsibility for more than one piece of equipment to accomplish this requirement. When responsibility for equipment cannot be assigned to a specific operator, the organizational commander must consider placing that equipment on administrative deadline.
2. Conditions under which operators can operate equipment other than equipment specifically assigned must be designated within the organizations maintenance SOP, additionally, operator maintenance requirements for such assignments must be specific.

#### 2002. ALLOCATION OF MAINTENANCE TRAINING/PERFORMANCE TIME

1. The importance of maintenance training is such that this training must be afforded the same priority as that of other training requirements.
2. Commanders of those organizations which provide support to and/or are tasked with accomplishing specific base functions such as motor transport, comm-elect, facilities repair, telephone repair, and warehouse operations must ensure that the work day/week is scheduled to permit adequate time for operator maintenance of the equipment.

#### 2003. SHOP OPERATIONS

1. Internal shop operations will be established in accordance with paragraph 2001 and 5003 of this Order. Additionally, designation of shop space and key personnel within each maintenance shop will be addressed in the shop SOP by title, authority, and responsibilities.
2. The maintenance shop supervisor/chief will assign the priority of work for each shop. For those organizations using the Equipment Repair Order, the maintenance shop supervisor/chief will ensure that the priority work is scheduled in accordance with the guidelines established in the unit shop MSOP.
3. Organizational commanders must ensure that the provisions of paragraph 4002.2 of this Order are set forth as a mandatory policy during the active maintenance phase.

4. The procedures for changing the ERO priority and the category codes as outlined in UM-4790-5 will be addressed in the unit's MMSOP and included in the unit's shop maintenance SOP.

#### 2004. EQUIPMENT THAT EXCEEDS MAINTENANCE CAPABILITIES

1. Equipment that exceeds a unit's capabilities or authorized echelon of maintenance stated in the mission statement on the cover page of the unit's T/O will be evacuated to the nearest supporting maintenance facility.
2. The evacuated equipment will be accompanied by the supporting equipment documents, i.e., Record Jacket, ERO filled out properly and with a reimbursable JON in the appropriate Block (63-76 on line 3 of the ERO).
3. Maintenance of commercial equipment shall be in accordance with manufacturers' procedures. In case of conflict with this SOP, the manufacturers' procedures shall apply. Unit capabilities to repair assigned commercial equipment shall be evaluated by the responsible commander in terms of personnel, test equipment, tools and facilities assigned. Commercial contracts may be accomplished to support assigned commercial equipment.

2005. 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.

1. PM services, also referred to as scheduled maintenance, are cyclic in nature and include:
  - a. Services performed by the user, operator, driver, or crew on a daily, weekly, or monthly basis.
  - b. Services performed by organizational maintenance personnel, assisted by the operator or crew, on a calendar, mileage, rounds fired, or hours of operational basis.
  - c. Special PM services performed by operational and maintenance personnel.
  - d. Physical examination of equipment records, the SL 1-2 which lists all modification instructions (MI's) that apply to specific equipment, and TI 5600 which lists new MI's not yet listed in the SL 1-2.
  - e. Changing the frequency of scheduled PM serves to interface with other operational requirements.
2. PM 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 a technical publication or by the manufacturer, the organizational commander will establish and publish a PM schedule for the equipment. The interval will not be greater than semiannually.
3. Accomplishment of required PM's is the responsibility of the commander of the organization to which the equipment is assigned. Accordingly, organizational SOP's will establish policies and procedures for that organization's preventive maintenance program. In this regard, Chapter 3 of the current edition of MCO P4790.2, provides specific guidance for the conduct of preventive maintenance.
  - a. All required PM services shall be performed, if practical, prior to evacuating the equipment to a higher echelon for maintenance. Common sense and good judgement 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 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.



b. PM services coming due on equipment which has been evacuated for higher echelon maintenance remains the responsibility of the owning organization. Accomplishment will be coordinated with the supporting maintenance organization. PM services will be completed as far as is possible without interfering with the required corrective maintenance. Again, common sense and good judgement will be used to preclude the accomplishment of unnecessary PM functions.

4. The foundation of the preventive maintenance program is the operator on the lowest level of maintenance. No one is more familiar with equipment than the individual who uses it. With proper command 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 1st echelon maintenance procedures are to be continuous.

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

6. Accomplishment of PM services will be recorded in equipment records in accordance with the current edition of TM 4700-15/1.

7. The unit will establish procedures for opening, processing and closing equipment in the maintenance process in accordance with Chapter 3 of MCO P4790.2.

#### 2006. EQUIPMENT MODIFICATION

1. 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's). Modification Instructions are classified as "Urgent" or "Normal".

(1) Urgent - A modification required to prevent death or serious injury to personnel, prevent damage to equipment, or to make changes that are considered so essential that their accomplishment must be completed at the earliest possible time. Urgent MI's 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 within a planned/scheduled basis. If modifications are not completed within one year of the date on the modification instruction, the unit requesting the modification will be required to fund for the labor and parts required to complete the modification.

c. The owning organization is responsible for ensuring that all modifications required on equipment are accomplished and properly recorded in equipment records.

d. Equipment requiring modifications that exceed the maintenance capability of the owning organization will be reported to the supporting maintenance organization. The maintenance organization, if capable of performing the modification, will determine the total requirement for all supported units, 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. For example, normal modification should be performed at the next scheduled quarterly preventive maintenance or during corrective maintenance.

2007. MODIFICATION CONTROL PROGRAM. The current edition of MCO P4790.2 and the current edition of MCO P4400.84 require each unit/section which is accountable for

equipment, regardless of the echelon of maintenance authorized, to establish a modification control program. Accordingly, the following policies and procedures are set forth for Base organizations:

1. Establish a modification control point by billet in the organization's maintenance SOP and outline its responsibilities.
2. Conduct a manual modification control program in accordance with the current edition of MCO P4790.2 (This information should be reproduced and provided to the commodity modification control point for use as desk-top procedures).
3. Evacuate equipment requiring a modification which exceeds the organization's maintenance capability in accordance with paragraph 2005.(4).
4. Maintain modification control records in accordance with the current edition of TM 4700-15/1.
5. Quarterly, as the new SL 1-2 is published or upon receipt of an applicable TI 5600, update the commodity managers and MMO modification control records with all applicable MI's.

2008. GARRISON MOBILE EQUIPMENT (GME) MODIFICATION CONTROL. All tactical configured equipment held as substitute items will be considered commercial (G-TAM) and only urgent modifications affecting the safe operation of the vehicle will be accomplished. Base Commodity Managers (Base MTO/Base MaintO) may authorize modification of garrison mobile equipment on an as required basis when such modification to the equipment is of a temporary nature and the intent is the eventual return to the basic design of the vehicle. When completed, modifications will be entered on the form NAVMC 696D. All other required modifications of an extensive nature will be forwarded to the Commandant of the Marine Corps (Code LME), via the Commanding General (Attn: Assistant Chief of Staff, Logistics (MMO)), Marine Corps Base for approval prior to completion. If approved, a copy of the approval will be retained on file and an entry made on the form NAVMC 696D. When modification requirements are received from the manufacturer, the number of the service bulletin will be entered when modification is completed. Chapter 9 of the current edition TM 4700-15/1 refers.

## 2009. EQUIPMENT CALIBRATION

### 1. General

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

b. Test, measuring, and diagnostic equipment used in the maintenance of other Marine Corps equipment must be periodically calibrated to ensure that 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 and measuring equipment.

### 2. Definitions

a. Test, Measuring, and Diagnostic Equipment (TMDE). Test, measuring and diagnostic equipment includes all electrical and electronic test instruments, radiac instruments, mechanical instruments, mechanics tools and equipment, ordnance gauges and instruments, engine analyzers, and any other item of equipment used to test equipment, measure equipment parameters, or diagnose equipment faults.

b. Full Calibration. A classification assigned to those items which must be accurate across their full range of measurements.

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

- (1) Item is listed in current calibration manuals/directives as CNR.



(2) An administrative decision, made by the organizational commander, that the item is used for qualitative (relative) measurements only.

d. Inactive Calibration. A classification assigned to items not in current use which are not calibrated to conserve fiscal resources. Items bearing an inactive sticker must be calibrated prior to being used.

e. Rejected Calibration. A classification assigned to test or measuring equipment that has been returned to the user uncalibrated because it fails to meet the acceptance standards of the calibration laboratory. Such equipment may require corrective maintenance or the replacement of accessories prior to calibration.

f. Special Calibration. Formerly referred to "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, meters or signal generators which are calibrated on one or a portion of the scales (ranges) available.

g. Quantitative Measurement. The performance of accurate measurements at a specific value within established tolerances. A measuring device used for quantitative measurement. Items used for quantitative measurements do require calibration.

h. 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 measurement. Items used for qualitative measurement do not require calibration.

2010. CALIBRATION CONTROL PROGRAM. The Marine Corps Calibration Program is described in the current editions of MCO P4790.2 and MCO P4733.1, and amplified in 4733 series TI's.

1. Calibration Control. The Unit will establish a calibration control program and coordinate the calibration control effort as follows:

a. Establish a calibration control system, either centralized or decentralized as outlined in the current edition of TM-4700-15/1.

b. Annually, evaluate all TMDE held at calibration control points to ensure that it is in the correct calibration category consistent with its function and to determine if an item is required/not required.

c. Coordinate with the supporting calibration facility on those items for which commodity managers cannot determine calibration requirements.

## 2. Organizational Responsibilities

a. Identify all Test, Measuring and Diagnostic Equipment (TMDE) within the unit, including individual items and those items which are part of chests, sets and kits. When a tool set does not require calibration, an item within the set, which does require calibration, may easily be overlooked. Normally, Marine Corps equipment with an Operational Test Code (OTC) of 3 on the Marine Corps Management Data List (ML-MC) will require calibration. Similar commercial equipment will also normally require calibration. Commercial equipment and some Marine Corps equipment requiring calibration will not be so identified in the ML-MC. This information is provided only for assistance in identifying calibration requirements. The calibration facility is the final local authority to determine calibration requirements and intervals.

b. Submit for calibration all TMDE that has been purchased new, received from another organization without a current label, on regular recall, or removed from inactive status.

c. Request special calibration for TMDE which is used in only a specific portion of its complete range.

d. Request "calibration not required" labels from the calibration lab for those instruments which are used for qualitative measurements only.

- e. Request "inactive" labels from the calibration lab for TMDE not expected to be used during the next full calibration cycle.
- f. Ensure current labels are affixed to all TMDE.
- g. Establish a calibration control point within the maintenance shop.
- h. Upon return of TMDE from calibration, the calibration control point must update the card with the calibration due date from the label on the equipment and telephonically notify the unit's MMO of the following information:
  - (1) The date which the item was received from TMO.
  - (2) The date calibrated.
  - (3) The next due date.
- i. Annually, during the month of October, perform an inventory of all TMDE available in the organization. Special care must be exercised in this inventory to ensure that test and measuring equipment which are components of other end items, such as tool kits or chests, are included. Concurrent with this inventory, the commander will determine the calibration requirement, i.e., full calibration, special, calibration not required, inactive, for each item possessed. Maximum use will be made of the calibration not required, inactive, and special calibration classifications.
- j. Maintain a list, updated at least annually of all TMDE by type, quantity and location.
- k. TMDE designated as "CNR" or "INACTIVE" require organizational PM's at six and twelve month intervals, respectively, between intermediate PM's. These PM's must be scheduled and recorded on the calibration control records. Details are contained in the current edition of TM-4700-15/1.

## 2011. RECORDS AND REPORTS

### 1. General

- a. Maintenance records and reports provide the basis for the management of the organization's equipment maintenance program. Their proper completion makes possible the analysis and evaluation of individual equipment performance and of the organization'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. 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 4700-15/1 will be maintained on equipment held by Base organizations. Records for equipment for which no records are specified in 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, commanders will establish records that require 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. Commanders will establish procedures to ensure that individual equipment records reflect all maintenance actions performed by the owning or the supporting maintenance activity.
- c. Maintenance Resource Records. Maintenance resource records are those maintained in conjunction with individual resources. For example, completion of technical schools is 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 creation of separate maintenance records by the maintenance organization which has duplicate records maintained elsewhere within the unit, will be held to the minimum required for effective management.

(1) Use of Equipment Repair Order (ERO)

(a) An ERO, NAVMC 10245, will be used by all commodities.

(b) All entries on the ERO will be completed in accordance with TM 4700-15/1. Organizational commanders desiring to use entries which are reflected as optional for nonfield maintenance subsystem uses will indicate the specific entries required in the unit's maintenance SOP.

(c) The same ERO number will not be assigned more than once during a calendar year.

(2) Use of the Shop Repair Order (SRO)

(a) An SRO, NAVMC 9-11200/3A, will be used by the following equipment commodities: engineer garrison mobile equipment (GME), automotive GME, and material handling GME.

(b) An SRO will also be opened when maintenance is performed on non-appropriated funds equipment (Special Services, Marine Corps Exchange or Club systems equipment) and on Resident Officer-in-Charge of Construction's (ROICC) equipment.

(c) All entries on the SRO will be completed in accordance with TM 4700-15/1.

(d) The same SRO number will not be assigned more than once a calendar year.

(3) Use of the Equipment Repair Order Shopping List (EROSL)

(a) The EROSL (NAVMC 10925) is designed to be used in conjunction with the ERO to requisition, receipt for, cancel, record partial issues and credits of repair parts, and secondary reparable associated with ground equipment undergoing repair. The EROSL has been designated primarily for units supported by the FMMS (Field Maintenance Subsystem) of the MIMMS AIS.

(b) The EROSL is authorized for use by units not supported by MIMMS AIS; therefore, for the purpose of continuity, the ERO Shopping List will be used by Base organizations required to complete the Equipment Repair Order. This procedure will preclude retraining Marines assigned to Base who have been trained in its use at other units and will be in keeping with intention of MIMMS which is to standardize records, reports, and procedures in equipment maintenance throughout the Marine Corps.

(c) Those organizations using the EROSL will use only the "4" card (Parts Requisition). Instructions for completion of the EROSL are contained on the template, which is attached to the EROSL pad and in the current edition of TM 4700-15/1.

(d) Though the EROSL is not the control document for the actual requisitioning of repair parts, the organization's maintenance and supply section can use it as an effective management tool during the internal validation and reconciliation described in Chapter 3.

d. Local Records. Local records are those maintained by a unit 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 unit. Such records will be established only when it can be demonstrated that a unit record would be beneficial to other activities, organizational commanders shall submit copies of all forms used and an explanation of the record keeping system/requirement to the Base MMO for review. Local records are not authorized when Marine Corps standard records that do the job are available.

e. Dragon/Tow Weapon System Records

(1) An equipment logbook shall be established and maintained on each component of the Dragon/Tow weapon system, except for the Pedestal, Infrared Transmitter, Guided Missile, M-5. Records for the pedestal will be incorporated into the logbook of the Transmitting Set, Infrared, M89E1.

(2) The equipment logbook shall be a hardcover logbook similar to the book, memorandum, ruled, side opening, 8 inch by 5 1/2 inch, NSN 7530-00-222-3521.

(3) Each logbook shall have six parts, incorporating the following equipment information:

(a) Part 1 - Nomenclature, model, Serial Number, date placed in service.

(b) Part 2 - Date/Time checked out, date/time turned in, actual time operated, date/time of malfunction or deadline, type of malfunction or reason for deadline, PM performed, operator's signature.

(c) Part 3 - ERO Number, date received for maintenance, date maintenance completed, repair results, adjustments performed, date and results of 90-day test, any further required maintenance.

(d) Part 4 - List of all pertinent MI's, TI's, SI's, LO's, and TB's, unit performing required individual tasks.

(e) Part 5 - Date of inspection, type of inspection, name and organization of the technician or operator conducting the inspection, inspection results.

(f) Part 6 - Date of logbook audit, name of Officer/SNCO conducting the audit, remarks.

f. Records Review. Organizational commanders 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. Recommendations submitted to Headquarters Marine Corps shall be submitted via the Commanding General (Attn: Assistant Chief of Staff, Logistics (MMO)).

g. Records Responsibilities. Organizational maintenance SOP's must designate the types of records required for the organization and by billet, the responsibility for the preparation, care, and handling of maintenance records.

3. Reports

a. Maintenance reports provide data and information for use in determining policy; planning, controlling, and evaluating operations and performance; and preparing reports for higher authority. Format and frequency of reports are determined by the specific requirements of the requiring organization.

b. Commanders 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. Organizational SOP's will address those reports required by higher headquarters and specify the responsibility by section or billet for report preparation. Within maintenance management, reports required by higher headquarters are found in various directives. Most often they are required in maintenance-related programs as discussed in Chapter 8 of this Order. Moreover, reporting requirements within maintenance management and related programs are not always on a scheduled basis; consequently, this type report is often overlooked.

d. Recommendations for improving reports will be submitted via the chain of command to the Headquarters requiring the report. Recommendations concerning reports



required by Headquarters Marine Corps will be submitted via the Commanding General (Attn: Assistant Chief of Staff, Logistics (MMO)).

#### 2012. CONTACT TEAM MAINTENANCE

1. There are times when it is not practical or possible to deliver equipment requiring repair to the supporting maintenance organization. Such is the case when equipment is permanently installed in a fixed location or when a quantity of the type equipment in an organization 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 organization after considering such factors as transportation costs, the feasibility of moving the equipment, work space in the shop, and the specific situation. Requests for a contact team will be made to the commander of the supporting maintenance organization in writing. Documentation (use of an ERO) is required where the support is provided.

#### 2013. SAFETY

1. Commanders are responsible for the prevention of accidents involving personnel, equipment, and property within their organization. They will incorporate safe practices into all operations and will initiate corrective action to eliminate safety hazards. Supervisory personnel at all levels shall ensure that all personnel in their charge are instructed in safe measures applicable to their respective areas of operation and that all safety regulations are strictly observed and enforced.
2. The Base Safety Officer is responsible for the establishment and function of the Command's safety program. The Maintenance Safety Officer, acting in conjunction with the Base Safety Officer, MMO, and the maintenance officers, will ensure safe practices and procedures are developed and followed in all maintenance operations.
3. Standing operating procedures for safety within this Command are set forth in the current edition of BO P5100.3. The Marine Corps Safety Program is established by the current edition of MCO 5100.8. A comprehensive treatment of safety precautions is contained in the current edition of NAVMAT P5100.
4. General Safety Precautions Applicable to All Maintenance Areas
  - a. All maintenance areas shall be continuously inspected for safety hazards.
  - b. Personnel shall immediately report all potential hazardous situations to their immediate maintenance supervisors.
  - c. Horseplay shall not be allowed within any maintenance facility.
  - d. All equipment shall be operated in accordance with existing regulations.
  - e. Only authorized cleaning agents will be used for cleaning. Gasoline is not authorized for cleaning.
  - f. Fire bills, fire alarms, fire extinguishers, and fire status assignments shall be clearly marked. The "fire" and "medical" emergency telephone numbers shall be posted near each fire station and telephone location.
  - g. Spilled POL shall be cleaned up immediately.
  - h. All working areas shall be constantly policed and kept free of debris.
  - i. Tools shall be properly stored when not in use.
  - j. Shop areas shall be well ventilated.

k. Personnel shall wear appropriate safety equipment at all times. This equipment includes, but is not limited to: safety shoes, eye shields, ear protectors, gloves and protective suits.

l. While performing maintenance, personnel shall not wear loose-fitting clothing or jewelry. When working with electrical sources, no metal, jewelry or dog tags will be worn.

m. All tools shall be used properly and only in jobs for which they are designed.

n. Handles shall be kept secure and mushroomed or burred heads shall be dressed down on hammers, chisels, etc.

o. Sharp tools shall be stored in a safe place when not in use.

p. When using tools, the working force shall be applied in a direction away from the body.

5. The preservation of human life and government property is of primary interest to the Command. It is not sufficient to treat personnel after they have been injured or to reclaim/rebuild damaged property. Safety consciousness cannot be assumed; it must be developed. Supervisory personnel must continually strive to identify and impress upon their personnel the dangers inherent in their particular MOS, as well as their prevention and cure. Personnel must be trained to provide immediate and appropriate first aid in the event of an accident.

6. Load testing, as required by the current edition of BO 11262.1, will be accomplished by all base organizations.

STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 3

SUPPLY AND FISCAL SUPPORT

	<u>PARAGRAPH</u>	<u>PAGE</u>
SUPPLY SUPPORT . . . . .	3000	3-3
REPAIR PARTS REQUEST SYSTEM . . . . .	3001	3-3
REPAIR PARTS CONTROL . . . . .	3002	3-4
DIRECT EXCHANGE . . . . .	3003	3-6
NEW EQUIPMENT . . . . .	3004	3-7
VALIDATION AND RECONCILIATION . . . . .	3005	3-7
TOOL, SETS, CHEST, AND KITS . . . . .	3006	3-9
FISCAL SUPPORT . . . . .	3007	3-10





## CHAPTER 3

## SUPPLY AND FISCAL SUPPORT

3000. SUPPLY SUPPORT1. General

a. Effective maintenance cannot be accomplished without effective 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 should not be allowed to deteriorate to the point where trouble has become compounded; this will increase the parts requirements proportionately and increase 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 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 PM's should be spread over the entire quarter. This not only aids maintenance by providing an even workload, it 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 not being able 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 active communication channels must exist between maintenance units 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 frequently to validate the continued need for the material.

3001. REPAIR PARTS REQUEST SYSTEM

1. Sources of Supply. There are three sources of supply repair parts for Base Organizations: Supply System Stocked Items, Supply System Nonstocked Items, and Non-System Items procured from local vendors.

a. Stocked Items

(1) The maintenance effort of the Base is primarily supported by the Shop Stores Branch/Self Service of the Direct Support Stock Control section. Issue points are established to position this supply support near the point of use.

(2) The Marine Corps Unified Material Management System (MUMMS) Direct Stock Control (DSSC) Manual (MCO P4400.76A) requires objective evaluation of all items stocked in Base Shop Stores and concludes that only items which meet specific criteria with respect to cost, frequency of demand, and suitability for stockage be considered. Procedures for requesting new items in Shop Stores are contained in MCO P4400.76A.

(3) Commanders of those organizations which require repair parts support should familiarize themselves with Chapters 1, 3, 7, and 8 of MCO P4400.76A.

b. Nonstocked Items. System items that are not stocked in the Shop Stores Section because of lack of usage will be requisitioned on DD 1348 MILSTRIP document through the DSSC Office. Specific instructions for the procurement of Nonstocked System Items are contained in Chapter 36, of BO P4400.5D (Logistics Manual).

c. Non-System Items

(1) Repair parts not stocked in the Supply System (Non-System Items) may be purchased by authorized maintenance organizations on Blanket Purchase Agreements (BPA's) from local vendors where the unit price is less than \$500.00.

(2) Organizations authorized to place calls against the established BPA are identified by separate correspondence directly to that organization.

(3) Organizational commanders possessing this authority must establish internal control procedures to ensure the following is accomplished.

(a) Repair parts numbers are checked in the Shop Stores catalog for stockage.

(b) Repair parts numbers not listed in the catalog are verified with the Operations Section, Stock Management Branch, of the Supply Department as Non-System Item.

(c) Non-System repair parts which exceed \$500.00 are submitted to the Base Contracting and Purchasing Officer on DD Form 1149.

2. Source, Maintenance Recoverability Codes

a. Repair parts will not be ordered for any echelon of maintenance that exceeds the authorized capability of the unit. The echelon authorized to remove, replace, and repair a part/component is indicated by the third and fourth digits of the Source, Maintenance, and Recoverability (SMR) code. The third digit identifies the echelon that may remove and replace the part/component. SMR codes are listed in SL-4's and repair parts list.

b. 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.

3. Requisition Priority Designators

a. Priorities will be assigned to repair part requisitions in accordance with the instructions contained in the current editions of MCO 4400.16 and/or UM 4400.15, Appendix V-I. The proper priority is determined by combining the Force/Activity Designator, with the urgency of need. In most cases, the requisition priority will be the same as the priority assigned the ERO it supports.

b. If an ERO/SRO is opened on an item of mission-essential equipment which is deadlined and it is determined that additional parts are required above those needed to remove the item from deadline, requisitions for those parts will be assigned a lower priority.

3002. REPAIR PARTS CONTROL

1. Pre-Expended Bins

a. Items under consideration for PEB's must meet the following criteria:



(1) If an item's unit of issue is other than pair or each, the dollar value of the stockage price may not exceed \$50.00.

(2) If the unit of issue is pair or each, the dollar value of the standard unit price may not exceed \$25.00; a quantity up to a dollar value of \$50.00 may be stocked.

b. Letters from the Commanding Officer authorizing PEB's will contain the following information at a minimum:

(1) National Stock Number/Part Number.

(2) Nomenclature.

(3) Unit of Issue.

(4) Unit of Cost.

(5) Total Cost.

(6) Quantity Authorized.

(7) Re-Order Point.

(8) Bin Location #. (Entries under this column may be left untyped and subsequently entered in pencil or grease pencil by the section maintaining the PEB.)

c. Once a PEB is authorized each bin must be established with the following annotated on the bin; bin #, NSN, nomenclature, quantity authorized, and re-order point. When a unit deals with small parts, the re-order point quantity is placed in a bag in the bin. When the parts personnel have to open the bag to get a part, they know it is time to reorder more parts.

d. All items that bins are prepared for must be authorized by the Commanding Officer. If an item is not on a shop's PEB letter, it is not authorized to be in the bin.

e. PEB items on hand that exceed the established dollar value or authorized quantity will be indicated on the request with a note stating that the item will not be replenished until current stock levels reach the authorized dollar value or quantity.

f. PEB items on hand that exceed the established usage criteria set forth in paragraph 1a above will be indicated on the request with a note that the item will be maintained on hand until current stocks are depleted and not re-ordered.

g. PEB's will be re-evaluated at least semi-annually during the months of April and October of each year.

h. The cost of pre-expend bins will be deducted from the authorized maintenance operating funds in all cost account groups as appropriate.

i. Pre-Expend Bins will be replenished as required in standard unit of issue quantities.

2. Excess Parts. 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. Repair parts will not be stockpiled in maintenance sections. "Goody Boxes" will not be condoned.

3. Maintenance by Cannibalization. Maintenance by cannibalization is defined as the removal of a serviceable part or component from one item of equipment for use in repairing another item of equipment. Selective interchange is cannibalization.

a. Cannibalization of mission-essential equipment is not authorized.

b. Cannibalization for commercial-type items of station property will not be employed except:

(1) When the original acquisition cost is \$1,000.00 or less, and,

(2) When, in the opinion of the organizational commander, such an item is no longer usable in its present condition and could not 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. Decisions on a case-by-case basis as to whether cannibalization will be accomplished on tactical equipment will be made by the Commanding General. Request for authority to cannibalize will be submitted to the Commanding General, (Attn: Assistant Chief of Staff, Logistics (MMO)). Emergency requests may be made telephonically (2535), backed up by written submission. If authorized, cannibalization will generally be accomplished at the lowest maintenance echelon authorized to remove and replace the part/component.

#### 4. ERO/SRO Bins

a. 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, an ERO/SRO bin will be established either by the organization's supply section or in the maintenance shop.

b. Organizational commanders must specify procedures for the use and control of ERO/SRO Bins and the responsibility for the maintenance and control thereof. Minimum procedures which must be established are as follows:

(1) Designate by billet who has responsibility for the operation of the bin.

(2) A copy of the EROSL be maintained with the parts that are placed in the bin.

(3) Each part listed on the ERO Shopping List or Shop Repair Order will be circled as the part is received. The quantity will be circled if the total quantity is received or indicated if the total quantity is not received. The date of receipt of the part will also be annotated.

(4) Each part listed on the ERO Shopping List or Shop Repair Order is annotated with a checkmark when the part is applied to the equipment.

(5) When all parts have been received, the maintenance supervisor will be informed so that the equipment may be placed on the work schedule.

(6) Access to the area where parts are stored will be controlled to eliminate the possibility of parts being used on equipment other than for which they were ordered.

(7) Each item must be tagged/marked with the applicable ERO/SRO number.

(8) Each item on requisition must be validated biweekly.

#### 3003. DIRECT EXCHANGE

1. Secondary repairable items requiring repair or exchange will be sent to Second Maintenance Battalion, Second Force Service Support Group. These items will have an Inspection Form (NAVMC 1018) affixed, and will be accompanied by a properly completed ERO.

2. Second Force Service Support Group Order 4400.20A sets forth the policy and procedures concerning secondary reparables.

3. Units that are authorized sub-floats will be guided in their operation by MCO P4400.82E, MCO P4400.125 and 2nd FSSGO 4400.20A.



3004. NEW EQUIPMENT1. Policy for Using/Serviceing Organizations

a. New items of equipment will be placed on administrative deadline and will not be put into service until all of the following standards, as applicable, have been met by the using/serviceing organization:

(1) All authorized stock levels/allowances of peculiar support items (repair parts, components, collateral equipment, kits, test equipment, tools, and technical manuals) are on hand.

(2) Adequate stocks of common support items are on hand.

(3) Sufficient trained operators are on board.

(4) Sufficient trained technicians/mechanics are available at all repair echelons.

(5) Adequate funds have been requested in the appropriate fiscal year budget.

b. Quality Reliability Reports will be submitted, as applicable, in accordance with current edition of TM 4700-15/1.

2. Activation of New Equipment

a. Upon activation of new equipment, organizational commanders will notify the Base Maintenance Management Officer.

b. Ensure that supervisory personnel are familiar with the contents of the current editions of MCO 4400.32 and MCO 4440.27.

3005. VALIDATION AND RECONCILIATION1. Definitions

a. Validation. This is the process by which requirements are confirmed. It involves confirmation of requirements which are still needed, cancellations, receipts, scrounges, and current status. When confirming needed requirements, the customer must ensure that they still exist, have been made known, and are resident in the supply system.

b. Reconciliation. The process by which an organization ensures that validated requirements are properly logged within the supply system.

2. Requirements. Validation and reconciliation must be conducted for the three sources of supply addressed in paragraph 3001.1. Accordingly, the following procedures are established:

a. DSSC Stocked Items

(1) Daily Validation. The shop/records clerk will accomplish the following:

(a) Ensure that the EROSL, or the material record of the SRO has been completed for all ERO's/SRO's opened the previous day requiring parts.

(b) Ensure that all material received from the organization's supply section has been issued to a mechanic or stored in an ERO/SRO bin.

(c) For all ERO's/SRO's requiring back-order of parts, ensure that the Shop Stores item manager has issued a demand card to the organization's supply system.

(2) Biweekly Validation. Once every two weeks, the shop/maintenance officer/supervisor or chief will accomplish the following:

(a) Review the daily validation procedures to ensure that they are being accomplished properly.



(b) Ensure that all ERO's/SRO's cite the actual condition and that the status is correctly reported on the Equipment Status Report.

(c) Inventory the contents of all ERO bins by comparing the appropriate EROSL, shopping list, or SRO to the quantity on hand. Annotate the EROSL, shopping list, or SRO with an asterisk where there are changes and report any requirements to the organization's supply section.

(3) Biweekly Reconciliation Between the Organization's Shop Maintenance and Shop Supply. Upon completion of the bimonthly validation, reconcile each EROSL/shopping list/material record section of the SRO with the outstanding demand cards held by the organization's supply section.

(a) Identify those parts no longer required and destroy the demand card.

(b) Identify those parts received but not shown as received by the organization's supply section, and destroy the demand card.

(c) Identify those parts not received but shown as received, and have the organization's supply section obtain a demand card (if the item is still NIS) from the Shop Stores item manager.

(4) Biweekly Reconciliation Between the Organization's Shop Supply Section and the Item Manager at Shop Stores. Check the status for each demand card and request the Shop Stores item manager to take action as follows:

(a) Priority 7, 9, and 14 requisitions for which no status has been received and a demand has been in the system for 15 days or longer need follow-up with source of supply.

(b) Priority 7 requisitions for which the most recent status received has been over 15 days need follow-up with the source of supply.

(c) Priority 7 and 9 requisitions for which the most recent status received has been over 30 days need follow-up with the source of supply.

b. Nonstocked Items

(1) Daily Validation. The shop/records clerk will accomplish the same procedure established for DSSC stocked items.

(2) Validation. The shop/maintenance officer/supervisor or chief will accomplish the same procedures established for DSSC stocked item.

c. Non-System Items

(1) Daily Validation. The shop/records clerk will accomplish the following:

(a) Ensure that a Material Requirements/Issue Document NAVFAC 9-11014/8 and the material record of the SRO have been completed for all SRO's opened the previous day requiring parts.

(b) Ensure that all material received from the designated shop buyer has been issued to a mechanic or stored in an SRO bin.

(c) Ensure that a valid call number/document number can be identified to each NAVFAC 9-11014/8. The shop/records clerk should obtain this from the shop buyer and annotate the shop copy of the NAVFAC 9-11014/8.

(2) Biweekly Validation. Once every two weeks, the shop/maintenance officer/supervisor or chief will accomplish the following:

(a) Review the daily validation procedures to ensure that they are being accomplished properly.

(b) Ensure that all SRO's cite the actual condition of the equipment and the status is correctly reported on the equipment status report.

(c) Inventory the contents of all SRO bins by comparing the appropriate SRO and NAVFAC 9-11014/8 to the quantity on hand. Annotate the SRO with an asterisk for any changes and report any requirements to the designated buyer/section supply as applicable.

(3) Biweekly Reconciliation between the Organization's Shop Maintenance and the Designated Buyer

(a) Each document number assigned to all outstanding NAVFAC 9-11014/8's will be checked to see if they appear on the Unfilled Orders Status Report.

(b) In the event that the buyer has not received the repair part within 15 days of the date the demand was placed on the local vendor, the organizational commander should be made aware of the situation. If the estimated response time of those vendors with whom the buyer is authorized to make purchase is determined unacceptable, the request will be cancelled and a DD Form 1149 will be submitted to the Base Contracting and Purchasing Office.

3006. TOOLS, SETS, CHESTS, AND KITS

1. Identification. With the exception of Comm-Elect, toolsets, chests, and kits will not appear on the Base table of equipment. Each organizational commander must ensure that all equipment within this category is identified on the organization's Consolidated Memorandum Receipt.

2. Location. Each toolset, chest and kit within the organization will be located, and responsibility for accounting and maintaining the toolset, chest, or kit will be specified by billet in the organization's shop maintenance SOP.

3. Inventory

a. A complete inventory of all toolsets, chests, and kits will be made using the appropriate SL-3, SL-3 extract, or U.S. Army supply catalog for those items resident in the supply system.

b. For toolsets, chests, and kits procured commercially, a local stock list inventory will be prepared from the accompanying commercial manual.

c. All common or special tools will be consolidated for the purpose of preparing a local stock list for inventory purposes.

d. The four categories of toolsets, chests, or kits and the required intervals are as follows:

(1) Individual tools stored by the section toolroom for check-out to maintenance personnel will be inventoried monthly using a locally prepared stock list.

(2) Those securely stored by the section toolroom for use by an individual/crew on an "as required" basis will be inventoried when issued, upon return, and monthly.

(3) Those issued to individuals with locks and secured in a storage area provided for the exclusive use of that individual will be inventoried upon issue, quarterly, and upon turn-in.

(4) Those securely stored by the organization's supply section and not in use will be inventoried annually.

4. Control

a. The current edition of MCO P4790.2 provides an inventory control record. This format will be used by Base Organizations for recording monthly, quarterly, and annual inventories. When a set, chest, or kit does not have an SL-3, organizational commanders will ensure locally procured inventory forms in this format are used.



b. Toolsets, chests, or kits issued to individuals will be secured when not in the custody of the individual. A duplicate key or a copy of the lock's combination should, when practical, be maintained by the responsible officer.

c. Toolsets, chests, or kits held by an organization for issue to individuals will be maintained in an area secure against pilferage.

d. Daily issue and receipts for toolsets, chests and kits will be recorded in a log book. Minimum entries to be recorded are as follows: date, description, time out, check-out inventory completed, time in, check-in inventory completed, and signature. The inventory columns will be initialed by the individual checking the toolkit, set or chest in or out respectively.

e. The remarks section of the inventory form will be annotated with the document number for items which are missing or unserviceable. Each organizational commander must ensure that each missing/unserviceable component is placed on requisition and that the section supply maintains current validation of these documents.

f. Toolkits, sets, and chests held in toolrooms from which tools are issued temporarily to mechanics on a recurring basis will be inventoried monthly by an individual, other than the toolroom custodian, designated by the Responsible Officer.

g. Annual inventories of sets, chests, or kits not currently in use will be conducted during the regular annual physical inventory of property. The original of the inventory will be retained in the organization's 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.

h. Inventories will be maintained on hand for one year and contain the date of the inventory, the signature of the individual conducting the inventory and the individual supervising the inventory. Personnel supervising the inventory will ensure that during the inventory the tools are inspected for serviceability and safety hazards and that required maintenance is conducted.

5. Journeyman Tools. The requirement for journeyman civilians to provide the basic tools of their trade is explained in the current edition of MCO P12000.7.

### 3007. 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 maintenance precludes the accomplishment of required preventive and corrective maintenance services resulting in increased dead line of equipment and, ultimately, the inability of the activity to accomplish its assigned mission.

2. Budgeting of Maintenance. Annually, Base organizations are required to develop their budget estimates for their organization for the current fiscal year, the coming budget year, and the year plus one. Maintenance Managers will participate in the development of the budget and ensure 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 unit mission and the equipment to be supported (increased age of old equipment, 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 their 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. Ensuring compliance with the current edition of Base Order P4700.1 SOP for Financial Management.



STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 4

TRAINING

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL INFORMATION . . . . .	4000	4-3
TRAINING REQUIREMENTS . . . . .	4001	4-3
TRAINING METHODS . . . . .	4002	4-3
TECHNICAL TRAINING . . . . .	4003	4-4
MAINTENANCE MANAGEMENT TRAINING . . . . .	4004	4-4
CIVILIAN EMPLOYEE TRAINING AND DEVELOPMENT PROGRAM . . . . .	4005	4-5
SUBJECTS ESSENTIAL FOR MAINTENANCE MANAGEMENT TRAINING . . . . .	4006	4-5





## CHAPTER 4

## TRAINING

4000. GENERAL INFORMATION

1. Effective maintenance cannot be accomplished by untrained personnel. Although the majority of maintenance personnel receive formal school training and are assigned an MOS/Job Classification upon completion of the school, this does not, in itself, make them instantly qualified as experts in their respective fields. The instruction received provides the basis for developing to qualified mechanics/technicians. Expertise is gained through experience, 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 techniques, use of technical publications, and supply and maintenance procedures. Similarly, mechanics/technicians must receive training on equipment operation, proper maintenance techniques, use of technical manuals, 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 instruction on the maintenance related programs explained in Chapter 8.

4001. TRAINING REQUIREMENTS

1. MCO 1500.40 sets forth the training requirement for Military Occupational Specialty (MOS), Mission Essential Training (MET), and Skill Progression Training (SPT). Accordingly, commanders will ensure that required training is included in the unit's annual training plan and the minimum hours per quarter for each subject. The accomplishment of this training will be recorded in the training records of individual Marines.
2. Commanders will be responsible for the selection of topics, preparation of lesson plans/training aids, and the assignment of instructors for maintenance operator training. Figure 2-2, of the current edition of MCO P4790.2, provides training topics which may be used for the selection of topics.
3. The Base Maintenance Management Officer will hold quarterly seminars, with all unit MMO's/MMC's attending to discuss mutual problem areas and new programs being adopted.

4002. TRAINING METHODS. Various methods are available to accomplish required training. These include formal schools, On-The-Job Training (OJT), cross training, and correspondence courses.

1. Formal Schools

- a. Formal schools are those courses of instruction established by the Marine Corps, other services, the Department of Defense, 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.
- b. Commodity managers and maintenance managers shall continually review available courses of instruction in the current edition of MCO P1500.12 and request quotas as needed to ensure assigned personnel receive the benefits which can be gained by this type of instruction. Requests for quotas should be based on the current and planned needs of the organization and preparation of individuals to fill positions of higher grade and increased responsibility.
- c. Nominations to formal schools will be based on an individual's qualifications.
- d. Organizational commanders and the Base Maintenance Management Officer will coordinate with the Assistant Chief of Staff, Training, in requesting and assigning quotas.

e. Quotas, when produced, must be met unless an exception is granted by the Assistant Chief of Staff, Logistics.

2. On-the-Job Training. On-the-Job Training (OJT) is probably the easiest and least expensive method of improving the qualifications of individual maintenance personnel. It is also the most abused method of training. OJT cannot be accomplished by handing an inexperienced individual a manual or set of instructions and telling them to learn how to do a certain task or function. For OJT to be effective an inexperienced individual shall be assigned to work with an experienced individual, who knows how and accomplishes the assigned task in the proper manner. The trainee observes the experienced individual doing the job and is then allowed to do it under the supervision of the experienced person. Allowing an inexperienced individual to learn alone, by trial and error, is harmful to the individual and often results in damage to the equipment being repaired. Therefore, commanders will ensure that OJT is scheduled and recorded in the individual's training record. Moreover, all OJT trainees must be tested periodically to determine their progress and to evaluate the quality of training being conducted.

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

4. 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 shall be afforded the opportunity to participate in all types of training available to enhance their proficiency. Quotas for formal schools will be requested and, if made available, filled with qualified personnel. Commanders will include technical training on the unit training schedule, provide necessary on-the-job training, and encourage enrollment in available correspondence courses.

2. The following minimum requirements in the area of technical training are required to be accomplished.

a. Technical training will be conducted whenever new equipment is introduced or new maintenance personnel are introduced to the unit's equipment.

b. Technical training will be conducted in the use and care of various tools, test, measuring, and diagnostic equipment.

c. The adequacy of unit training shall be determined by the administration of skill tests upon completion of the training.

d. Refresher training will be conducted as determined by the condition of equipment and/or the results of inspections.

#### 4004. MAINTENANCE MANAGEMENT TRAINING

1. Maintenance management training is required to provide instruction on current managerial techniques 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 must be disseminated to all personnel.

2. The Marine Corps has established a Maintenance Management Officers/Staff Noncommissioned Officers School at Landing Force Training Command, Little Creek, Virginia. This course is available to all ground officers (WO to LtCol) and SNCO's. Requests for quotas to this course will be coordinated with the Base MMO.



**4005. CIVILIAN EMPLOYEE TRAINING AND DEVELOPMENT PROGRAM**

1. Training Policy. The Civilian Personnel Division is responsible, in conjunction with the appropriate Base unit/section head, for the training of civil service employees aboard Base. This responsibility includes the training necessary for the maintenance of journeyman skills, and the training required to introduce maintenance personnel of all Base organizations to new equipment and procedures.
2. Training Program. The Civilian Personnel Division will include in its annual training program that training necessary to ensure that civilian employees are prepared to discharge the maintenance responsibilities.
3. Requests for Training. Requests for formal training will be submitted in accordance with Base Order 12410.3G (Civilian Employee Training and Development Program).

**4006. SUBJECTS ESSENTIAL FOR MAINTENANCE MANAGEMENT TRAINING**. The subjects listed herein are considered essential to the organization's maintenance 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 organizational commander shall be included in the organization's training program.

1. Marine Corps Technical Publications. (I.e., technical manuals, technical instructions, modification instructions, supply instructions, stock lists, etc.) Acquisition, maintenance, and use of the publications should be stressed. The activity publications control will be explained in detail.
2. Calibration Program. Purpose of calibration, responsibilities, and documentation required by the activity calibration control program.
3. Modification Program. Requirement and authority for modification of equipment and the modification control program.
4. Preventive Maintenance. Requirement, scheduling methods, documentation, preventive maintenance indicators.
5. Corrective Maintenance. Program established within the organization for accomplishing required corrective maintenance, evacuation procedures, etc.
6. Echelons of Maintenance. Responsibilities of each echelon. Echelon authority by Table of Organization.
7. Equipment Records. Operational and maintenance records. Responsibilities and procedures for completing forms.
8. Inspections. Use and types.
9. Safety. Operational and maintenance safety requirements and practices.
10. Quality Deficiency Reports. Purpose, proper completion of forms, submission of reports.
11. Report of Discrepancies in Support Publications. Use of the NAVMC 10772.
12. Shop Organization and Management
13. Control of Tools, Support and Test Equipment
14. Equipment Preservation Procedures
15. Supply Support. Use of forms, priority designators, urgency of need designators, control of repair parts, and pre-expended bins. Validation requirements and procedures.

16. Maintenance Related Programs. Purpose, use and procedures of those maintenance related programs are set forth in Chapter 8 of this Order.
17. Financial Management. Budget process and responsibilities within the activity.
18. Secondary Repairable Program. Purpose and procedures for use.
19. Maintenance SOP's and Desk Top Procedures. Purpose, requirements, preparation and use.
20. Marine Integrated Maintenance Management System's Automated Information Sub-program (MIMMSAIS). FMF versus post and station application.

STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 5

INSPECTIONS AND VISITS

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL . . . . .	5000	5-3
INSPECTIONS . . . . .	5001	5-3
VISITS . . . . .	5002	5-4
QUALITY CONTROL . . . . .	5003	5-5
MAINTENANCE MANAGEMENT ASSISTANCE TEAM . . . . .	5004	5-5





CHAPTER 5

INSPECTIONS AND VISITS

5000. GENERAL

1. To supplement information received on equipment status, commanders at all levels must ensure that proper operating and maintenance procedures are being utilized in their organizations. This is achieved by inspections and visits conducted by the commander, or members of the staff. Inspections and visits not only provide the commander with the means of evaluating the performance of the unit 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 of operations of the visible display of command interest demonstrated by frequent visits to the maintenance area by the commander and the staff. Not only will the commander be better informed but the recognition afforded the maintenance effort will emphasize the importance placed on maintenance by the commander. 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 a commander by which the commander can ascertain whether the planning and organization are sound, the staff is functioning effectively, and if the directives are clear, understood, and being effected by subordinates. Inspections promote efficiency and economy of operations by identifying procedural deficiencies, equipment defects and improper utilization of maintenance resources.

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

a. 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 unit to prepare for the inspection. During the period allocated, the formal inspection is the primary activity of the inspected unit and personnel and equipment are made available to the maximum extent possible. Formal command inspections will be conducted semi-annually.

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

c. Specific instructions for the conduct and submission of inspection reports are contained in the current edition of Base Order 5041.15, Command Evaluation Program.

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. Outstanding 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 measurable standards. Judgements 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 organization 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.

## 5. Reports

a. Maintenance inspection reports will be prepared and submitted by the individual inspector in accordance with the format prescribed in Base Order 5041.15B. Reports will be factual and concise. Remedial action required will be readily discernable. 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 organizational commander immediately following the completion of the inspection.

b. Formal written reports will be prepared at the conclusion of all scheduled inspections and as specifically directed for other inspections. Inspection reports will be consolidated by the Base MMO for submission to the Base Inspector as required.

## 6. Correction of Discrepancies

a. In many cases, the deficiencies noted in the inspection report are merely symptoms of an 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 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.

7. Reports Retention. Inspection reports will be maintained on file by inspected units for a period of two years.

## 8. Maintenance Management Inspection (MMI)

a. The MMI program will be established and conducted by the Base MMO in accordance with BO 5041.15B. The inspection will encompass all areas of maintenance and maintenance management under the cognizance of the MMO.

b. Organizational commanders who have equipment assigned to other Base organizations will establish inspection schedules to evaluate maintenance management as it pertains to user maintenance (e.g., ordnance, motor transport, training aids, engineer, material handling, and comm-elect equipment). If the organization does not own the equipment but is tasked with supporting maintenance, an inspection will be scheduled to evaluate 1st echelon maintenance of those units which it supports (e.g., commercial type communications-electronics equipment).

c. Reports of the inspection will be distributed to the commander of the organization inspected, the Base Inspector, and Base MMO.

## 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: command visits, staff visits, and liaison visits.

2. Command Visits. The importance of visits to the operating/maintenance areas by organizational commanders cannot be overemphasized. Periodic unscheduled visits by the commander 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 commander are visible indications of the interest the commander has in maintenance and the emphasis the commander places on it. The information obtained by the commander is not the only benefit of command visits. The impact on morale and the recognition afforded maintenance personnel will result in an increase in the efficiency of the unit maintenance program.



3. 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 organization for a specific purpose. Staff visits are appropriate to investigate troublesome areas and afford the opportunity for immediate feedback. Staff visits are of particular value in providing assistance and instructions to the visited organization.

4. Liaison Visits. Visits for the exchange of information, familiarization, and coordination are frequently necessary, and always beneficial, between organizations where no junior-senior relationship exists. Liaison visits by organizational commodity areas to the support maintenance facility are essential to harmonious operation and the resolution of problem areas. Liaison visits between commodity/maintenance managers of adjacent organizations for the exchange and development of mutual support are beneficial and are encouraged.

#### 5003. QUALITY CONTROL

1. The objective of quality control is to maximize equipment readiness, efficiency, and reliability by ensuring that proper and efficient maintenance and procedures are performed during the maintenance process. Therefore, it is an ongoing inspection process of those procedures depicted in Figure F-1, in the current edition of MCO P4790.2.

2. Each organizational commander tasked with performing equipment maintenance will establish quality control procedures in the shop maintenance SOP. The following must be addressed as a minimum:

- a. Shop inspections will be guided by the procedures outlined in Figure F-1, in the current edition of MCO P4790.2 in the performance of their duties.
- b. Identify by billet those authorized to inspect, accept, and approve work.
- c. Establish the billet within the organization which is responsible for managing the Quality Deficiency Report Program as discussed in Chapter 8 of this Order.
- d. All Quality Deficiency Reports will be routed through the Base Maintenance Management Officer.

#### 5004. MAINTENANCE MANAGEMENT ASSISTANCE TEAM

1. The Maintenance Management Assistance Team (MMAT) is established for the sole purpose of assisting Base organizations in establishing, implementing, and maintaining their maintenance management program and are used as the inspecting agent of the Commanding General for Maintenance Management.

2. The MMAT will be task organized for each commitment. It will consist of the Base MMO, the Base Maintenance Management Chief, and commodity specialists from other organizations as required.

3. The MMAT will respond to requests from commanders/officers in charge to evaluate and/or assist their maintenance management program. Requests may be submitted to the Commanding General (Attn: Assistant Chief of Staff, Logistics (MMO)).



STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 6

FACILITIES

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL . . . . .	6000	6-3
RESPONSIBILITY . . . . .	6001	6-3
MAINTENANCE AREAS . . . . .	6002	6-3





# STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

## 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, ventilation, etc.

#### 6001. RESPONSIBILITY

1. Facility Assignments. The Assistant Chief of Staff, Facilities is responsible for the assignment, reassignment and inspection of all Base facilities, including equipment maintenance and storage facilities. All requests for assignments, additions or improvements of facilities are required to be submitted in writing to the Commanding General (Attn: Assistant Chief of Staff, Facilities). Any proposals for acquisition, expansion, or modification of facilities should be clearly stated and amplified by sketches or outlines, as appropriate, at the time of submission.

2. Organizational commanders 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 organizational commander for the day-to-day utilization of 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, organizational commanders should arrange for the installation and use of space heaters.

b. Lighting. Adequate lighting must be provided to accomplish assigned tasks and without constituting a health hazard to personnel. Lighting requirements have been established by the Occupational Safety and Health Administration for various occupations. Organizational commanders 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 quality and at the desired location required to accomplish the maintenance tasks and to provide necessary drinking and toilet facilities. Additional facilities are required in battery charging areas.

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

e. Ventilation. Proper ventilation is a necessity for the safety of personnel. This is a prime requisite in areas where vehicular equipment is maintained, where equipment is cleaned by 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. Commanders 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 workflow, 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, toolroom supply, publications 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 sections/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 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 shipping/receiving 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. Toolroom, Supply, and Publication 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 from the job underway, thus expediting the maintenance process.



STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 7

PUBLICATIONS AND DIRECTIVES

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL . . . . .	7000	7-3
RESPONSIBILITIES . . . . .	7001	7-3
ALLOWANCE LISTS . . . . .	7002	7-4
CHECKLISTS FOR EFFECTIVE PUBLICATIONS . . . . .	7003	7-5
PUBLICATIONS CONTROL SYSTEM . . . . .	7004	7-5
REQUISITIONING, VALIDATION, AND RECONCILIATION . . . . .	7005	7-8
PUBLICATION LIBRARIES . . . . .	7006	7-8
COMMERCIAL EQUIPMENT PUBLICATIONS . . . . .	7007	7-9
ERRORS AND RECOMMENDATIONS . . . . .	7008	7-9



## 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 the performance of their 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 on how to obtain and maintain publications and directives, nor is this information provided in higher level schools. The required training must be provided by the organizational commander.
2. Publications. 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 Marine Corps, other services, or commercial vendors. The current edition of MCO P5215.17 provides information on the Marine Corps Technical Publications System.
3. Directives. Those 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. Commanders. Commanders 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 Officers
  - a. Exercise primary staff cognizance over the organization's publication control and distribution system.
  - b. In conjunction with the organizational S-4, establish the publication requirements and internal distribution.
3. Maintenance Management Officer
  - a. Exercise staff cognizance over the acquisition, maintenance, and use of technical publications.
  - b. Ensure that organizational training programs include required training on publications.
  - c. Provide technical assistance to the S-1 Officer in determining the publications required and in what quantities, and in establishing the internal distribution for publications received.
  - d. Meet quarterly with the Unit commodity managers to hold instructions, inspect, review the T/A for publications, update libraries, and to ensure commodity managers supervise the inventory and maintenance of their publications.
  - e. Ensure that commodity managers are familiar with the provisions of MCO P5600.31E and that a sufficient quantity of NAVMC 10772, Recommended Changes to Technical Publications, is available within each commodity area.
  - f. Ensure that commodity managers establish technical publication control procedures.



#### 4. Commodity Managers

- a. Establish required technical libraries within their areas of responsibility.
- b. Provide required training in the acquisition, use, and maintenance of publications.
- c. Establish a publications inventory and control system.
- d. Provide input to the unit MMO on publications required from automatic distribution.
- e. Requisition publications, maintain requisition files, and validate and clear documentation when requisitions are received.
- f. Ensure that sufficient quantities of NAVMC 10772 are available to maintenance personnel.
- g. Upon receipt of the TI 4700, TI 5600 and SI 5600 series, ensure that required publications referenced in the TI's are placed on requisition and that publications cancelled by the SI are properly disposed of.
- h. Upon receipt of Marine Corps Bulletin 5215, SL 1-3, and SL 1-2, determine if all publications are on hand and current, ensure that superseded/cancelled publications and directives are disposed of in accordance with current directives, and that requisitions are submitted for new publications authorized but not on hand.
- i. Annually, during the month of August, conduct a wall-to-wall inventory of all publications in accordance with instructions contained in this SOP.
- j. Maintain a consolidated list of publications required in their areas of responsibility.

5. Organizational S-4 Officers. The provisions of paragraph 7004 apply with respect to 1st echelon maintenance manuals (operator's manuals) for TAM or commercial equipment on the organization's property accounts or equipment assigned to the organization on a recurring basis by another organization, e.g., vehicles, M16A1 rifles, public address systems, NBC equipment, commercial electronic equipment.

#### 7002. ALLOWANCE LISTS

##### 1. Table of Allowance (T/A for Publications)

- a. The T/A for Publications is a computer printout published by Headquarters Marine Corps which lists all the distribution code/lists utilized by Headquarters Marine Corps and the allowances for specific codes/lists that an organization rates. It is tailored to an individual organization. The allowances listed therein are based on the requests of the organization concerned and the judgement of the publication sponsors of Headquarters Marine Corps. The T/A for Publications is published upon a request for revision by the organization concerned or semiannually if no changes have been requested.
- b. In establishing the allowances in the T/A for Publications, a senior headquarters must not include publications required by a subordinate organization which has its own T/A. However, it must be determined who will provide publications for commodity areas under the operational control of the organization's staff when administrative functions are performed by a subordinate organization with its own T/A. Publications should be provided through only one organization to preclude wasteful duplication.
- c. The T/A for Publications shall be reviewed and certified within 20 days after receipt of a new printout and/or semiannually. The review shall be coordinated by the S-1 Officer with assistance from all executive and special staff officers and sections.

2. Commands/Organizations. All commands/organizations below the Headquarters Marine Corps level that issue directives are required to establish a distribution and allowance system for those directives issued. 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 organizations which receive them. Subordinate commanders are responsible for further distribution of these directives within their organizations.

#### 7003. CHECKLISTS FOR EFFECTIVE PUBLICATIONS

1. Bulletins. A checklist of effective directives is published quarterly by Headquarters Marine Corps and semiannually by all other organizations that issue directives. Normally, these checklists are bulletins in the 5215 series. They must be used in conjunction with the allowances established to ensure that the organizations receiving directives have on hand the current edition of all required directives.

2. SL 1-2, Index of Authorized Publications for Equipment Support. The SL 1-2, published quarterly by Headquarters Marine Corps, provides a listing of all publications authorized by the Marine Corps 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 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.

3. SL 1-3, Index of Publications Authorized and Stocked by the Marine Corps (PASMC). The SL 1-3, published quarterly by Headquarters Marine Corps, provides listings by prefix control number a (PCN) and short title of all publications stocked by the Marine Corps Logistics Base, Albany, Georgia. 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 publications libraries will determine if all the steps are required. The program is laid out so that organizations can begin at any point, omitting any steps previously accomplished.

2. Determining Requirements. In determining the organization's requirements for publications and 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 organization's requirements for publications it is necessary to ascertain the types of equipment to be supported, the echelon of support provided, and the quantity of publications required and in what locations. This is accomplished by using the Table of Equipment (T/E), allowance list, the Table of Organization (T/O) cover page, the SL 1-2 and SL 1-3. Subordinate elements in an organization receiving publications through the organization's internal distribution should accomplish the following:

(1) Using the T/E (or allowance list), prepare an Inventory Control Card, in accordance with the current edition of MCO P4790.2, for each type of equipment rated/supported. At this time only the equipment nomenclature, ID number, TAM number, and quantity rated/supported need be completed.

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

(b) ID and TAM numbers for tactical equipment can be found in the Table of Authorized Material the NAVMC 1017. TAM numbers for GME are contained in the current edition of MCO 4440.27.



(2) Refer to the 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 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 the 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 number of copies in each library, 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 a set of publications pertaining to an item of equipment for each item possessed. The actual determination of requirements will be made by the organizational commander, unless dictated by other higher headquarters' publications. TI-8005-15/21, for instance, dictates the quantity of operator manuals to be maintained for certain ordnance items.

(5) Technical publications of a general nature, e.g., TM 4700-15/1, Equipment Record Procedures, and those Technical Manuals, Technical Instructions, etc., 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 publications being referenced in other publications, directives, and checklists. The determination of requirements is accomplished in the same manner as the equipment oriented publications and should be recorded on the Inventory Control Card except that no equipment identification data is recorded.

b. **Directives.** The procedures used in determining the requirements for directives is similar to that used for publications except that the control publications are different and there is no publication to indicate what is needed at a given echelon.

(1) Control publications used in determining requirements for directives are the effective directive checklists bulletins in the 5215 series of the organizations, 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 organization. The basic criteria which should be met is an affirmative answer to the question, "Does this directive contain information necessary for the accomplishment of the assigned mission/duties?" Figure B-1, of the current edition of MCO P4790.2 provides minimum publication requirements for a unit's Maintenance Management Program.

(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 organization is accomplished through a careful analysis of the distribution codes and quantities required of individual publications recorded on the inventory control cards. A list of the distribution codes and quantities required will be prepared for each source of publications (Headquarters Marine Corps, MCB, 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 section's 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 the same code, or if a lesser number will suffice.



d. After all the subordinate elements have compiled their lists of requirements, the Units S-1 Officer, and the MMO/Unit S-4 should jointly chair a meeting where all the requirements of the organization 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 organization. Multiple aspects which must be considered are: Is it necessary to have specific publications available in all locations? Are these publications used on a recurring basis or just periodically by the various sections? Could their 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 Form.

e. Once the consolidation is complete, the S-1/Administrative Officer and the MMO/Unit S-4 can compare the NAVMC 10975 with the current T/A for publications and allowances established by other senior headquarters for their publications. The S-1 Officer should then prepare the necessary correspondence to Headquarters Marine Corps and other senior headquarters to request changes to the established allowances.

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

a. Directives received on automatic distribution will normally be processed and distributed by the S-1 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 by the organization's central files, mail room, or administrative section. Publications received by requisitioning should be forwarded to the organization'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. Since the normal procedure to send publications to commodity areas which are on the Unit T/A for distribution is via guard mail, commodity managers should ensure that one central point for receipt of these publications is designated with their shops. This will facilitate validation and reconciliation procedures and ensure accurate inventory control procedures.

#### 4. Inventory Control

a. Inventory control is the means used to ensure that the publications received are properly maintained. This area of the organization's maintenance SOP pertaining to publications should be the most detailed since the instructions provided will be used daily by the publications librarian in the subordinate elements of the organization.

b. Organizations listed under the Unit T/A will ensure the following actions are completed:

(1) That upon receipt of the most recent ST. 1-2, all additions are recorded on the Inventory Control Card.

(2) That additions to the ST. 1-2 are placed on order if not received by automatic distribution.

(3) That all deletions noted on the ST. 1-2 are appropriately taken off the Inventory Control Card.

(4) That an Inventory Control Card is prepared for all new publications pertaining to maintenance/maintenance management as they are received.

(5) That the TI 4700 and TI 5600 series is reviewed upon receipt and an Inventory Control Card is prepared on pertinent publications.

(6) That upon receipt of publications which have been requisitioned, the Inventory Control Card is adjusted to reflect the current status of quantity on hand, quantity on order, and location.

7005. REQUISITIONING, VALIDATION, AND RECONCILIATION. The following procedures are established for organizations which receive distribution under the Unit's Table of Allowance:

1. Requisitioning

a. Once a need for a specific publication is identified, the requesting organization will fill out and submit, in duplicate, an 80 card column work sheet prepared in accordance with the current edition of MCO P5600.31 with all details except the document number, to the Unit Supply Officer via the S-1 Officer.

b. Upon requesting the publications, the Supply Officer will return the original copy of the 80 card column worksheet to the requesting organization with the document numbers which have been assigned to the requisitions appropriately annotated.

2. Validation

a. Upon receipt of the requested publication, the Supply Officer will forward the publication to the requesting organization.

b. Upon receipt, the requesting organization will delete the publications received from the original memorandum which was used to request the publication.

3. Reconciliation

a. Reconciliation will be conducted monthly between the requesting organization and the Supply Officer.

b. Reconciliation should be directed at ensuring publications received since the last reconciliation are not still on order, and that tracer action is submitted on publications which have not been received within 30 days of the requisition date.

c. The date of the reconciliation will be annotated and initialed by the Supply Officer on the original memorandum.

4. Back Order Validation. Semiannually on 1 March and 1 September, a listing of all backorder requisitions held for each activity will be furnished for review from MCLB Albany, Georgia. The requisitioning activity should review and annotate their listing with either DIC AEl for publication still required or DIC AC1 for desired cancellations. The annotated listing should be returned to the Commanding General (Code A875M), MCLB, Albany, Georgia 31704 prior to 14 April and 15 October, respectively. Failure to respond will result in the cancellation of all requisitions contained on the listings. Any activity that has backordered publications and fails to receive a backorder validation listing within 21 days of 1 March or 1 September, as appropriate, should notify the Commanding General (Code A875M), MCLB, Albany, Georgia 31704 (Autovon 460-5818/5819).

7006. PUBLICATION LIBRARIES

1. A technical library will be maintained in locations deemed necessary by the unit commanders and this Order as well as other directives from higher headquarters.

2. The location of all technical libraries within the organizations required to have a technical library must be identified within the organization's SOP.

3. Publications may be arranged in numerical order by publication number, or grouped by equipment type in numerical order. When determining which method to use, organizational commanders should remember that publication inventories, and the SL 1-2, provide the mechanic/technician/armorer with a ready reference to all publications pertaining to an item of equipment.

**7007. COMMERCIAL EQUIPMENT PUBLICATIONS**

1. Publications prepared by commercial contractors which the Marine Corps has adopted and authorized for use are listed in the Marine Corps SL 1-3. Requisitions for required publications of this type shall be prepared and submitted in accordance with the provisions of this SOP. Other commercial publications are normally provided at the time of procurement. Publications of this type must be funded and requisitioned by the using organization from the appropriate manufacturer or vendor source.
2. Publications for commercial equipment will be managed and controlled in accordance with the provisions of this Chapter and the current edition of MCO P5600.31.
3. Organizational commanders possessing commercial equipment will ensure that the most current operator's manual, parts manual, and technical manual for maintenance are maintained for each item of equipment.

**7008. ERRORS AND RECOMMENDATIONS**

1. The primary means by which technical publications are changed is through input from the various armorers, technicians, mechanics, and maintenance management personnel in the field.
2. The Marine Corps' Recommended Changes to Technical Publications (NAVMC 10772), as established by the current edition of MCO P5215.17, provides a medium for accelerated information feedback to the prospective agency to immediately cause the necessary corrections, changes, and/or revisions, as appropriate, to the Marine Corps equipment support publications concerned.
3. Recommended changes to the SL 1-2 will be submitted in accordance with the current edition of MCO P5215.17.
4. Commanders of those organizations which use the technical publications will accomplish the following:
  - a. Ensure all maintenance/maintenance management personnel are indoctrinated on the purpose and use of the NAVMC 10772.
  - b. Provide take-one boxes in all areas where publications are actively used, e.g., shop offices, central maintenance activities.
  - c. Ensure that the NAVMC 10772 is submitted by the individual detecting the need for the change and that submission of the NAVMC 10772 is not delayed for administrative processing or review.





STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

CHAPTER 8

MAINTENANCE RELATED PROGRAMS

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL . . . . .	8000	8-3
MODIFICATION CONTROL PROGRAM . . . . .	8001	8-3
CALIBRATION CONTROL PROGRAM . . . . .	8002	8-3
QUALITY DEFICIENCY REPORT . . . . .	8003	8-3
DETERMINATION OF ECONOMICAL REPAIR . . . . .	8004	8-4
QUALITY CONTROL AND QUALITY ASSURANCE . . . . .	8005	8-4
ENGINEER EQUIPMENT REPAIR CRITERIA . . . . .	8006	8-5
RECOVERABLE ITEMS PROGRAM . . . . .	8007	8-5
REPLACEMENT AND EVACUATION PROGRAM . . . . .	8008	8-5
GARRISON MOBILE (ENGINEER) EQUIPMENT PROGRAM . . . . .	8009	8-5
GARRISON MOBILE (MATERIAL HANDLING AND AUTOMOTIVE) EQUIPMENT PROGRAM . . . . .	8010	8-6





STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

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 designed 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 affect the majority of Base organizations and provide the necessary reference(s) where more detailed explanation may be found. Provisions of the implementing directive will be strictly adhered to by all Base organizations.

8001. MODIFICATION CONTROL PROGRAM. The modification of Base equipment and the elements responsible for input are discussed in Chapter 2.

8002. CALIBRATION CONTROL PROGRAM. The Marine Corps Calibration Control Program and procedures to be followed by Base organizations are set forth in Chapter 2.

8003. QUALITY DEFICIENCY REPORT

1. The current edition of MCO 4855.10 establishes the criteria and provides instruction for the submission of Quality Deficiency Reports (QDR).

2. The purpose of the QDR is to provide information to activities responsible for development, procurement, or management of equipment concerning deficiencies in design, material, or procurement so that action may be taken to correct the reported deficiency. QDR's shall be prepared and submitted by the individual who discovers the deficiency. They will not be delayed administratively to correct grammar or spelling.

3. Organizational responsibilities are as follows:

a. Ensure all maintenance/maintenance management personnel are familiar with the contents of MCO 4855.10.

b. Provide an adequate and readily accessible supply of SF 368 QDR in all maintenance shops.

c. Ensure the following procedures are accomplished during submission:

(1) For a Category I ODR. Suspend the use of such material and notify the Commandant of the Marine Corps (Code LMA-1) and the Commanding General (Code P840), Marine Corps Logistics Base (MCLB), Albany, Georgia, directly by message. The message will be prepared for release by the Assistant Chief of Staff, Logistics. The message shall be completed in accordance with MCO 4855.10. The notification shall include the reasons for the suspension of use and other pertinent details. This action shall be followed with the submission of an SF 368 QDR within 48 hours of the message transmittal. The SF 368 shall be prepared in accordance with MCO 4855.10 and shall contain the message date time group (DTG), the same report control number as used on the message, a complete explanation of the circumstances that necessitated the suspension, a request for disposition instructions, and a statement of location of the exhibit.

(2) For a Category II (Urgent) ODR

(a) Suspend the use of the item or material, as necessary; submit a QDR using the SF 368 form as outlined in MCO 4855.10.

(b) Forward the QDR in triplicate to the Commanding General (Code P840), MCLB, Albany, Georgia 31704 (screening point), with a copy to the Assistant Chief of Staff, Logistics, (Attn: MMO), Marine Corps Base, Camp Lejeune, North Carolina 28542.

(c) Forward the QDR within 15 days after discovery of the deficiency.

(d) Hold defective material as an exhibit for possible use in the investigation of failure.

(3) For Category II (Routine) ODR

(a) Suspend the use of the item or material, as necessary; submit a QDR, using the SF 368 form as outlined in MCO 4855.10.

(b) Forward the QDR in triplicate to the Commanding General (Code P840), MCLB, Albany, Georgia 31704 (screening point) with a copy to the Assistant Chief of Staff, Logistics, (Attn: MMO) Marine Corps Base, Camp Lejeune, North Carolina 28542.

(c) Forward the QDR within 30 days after discovery of the deficiency.

(4) For All ODR Categories

(a) Maintain all backup/supporting documentation and/or exhibits until the screening point calls for the data or for 45 days from receipt of the control number from the screening point.

(b) Upon notification from the screening point or after the 45-day holding period for supporting data, return items to stock, using the appropriate condition code or make disposition in the best interest of the Government.

(c) Use the appropriate priority designator of Military Standard Requisitioning and Issue Procedures (MILSTRIP) requisitioning procedures when forwarding documentation, exhibits or samples.

(d) When material deficiencies cannot be appropriately analyzed at a given user/maintenance level, the maintenance activity supporting that level shall assist in the analysis and failure documentation prior to submission of the QDR.

4. The Base Maintenance Management Officer's responsibilities are as follows:

a. Report any deficient QDR responses to the Commanding General (Code P840), MCLB, Albany, Georgia 31704 (screening point), for corrective action. If the subsequent corrective action is still deficient, report it to the Commandant of the Marine Corps (Code LMA-11), Headquarters, U. S. Marine Corps, Washington, DC 20380.

b. Maintain a status log on all QDR's submitted through final action, noting final action taken.

8004. DETERMINATION OF ECONOMICAL REPAIR

1. The current edition of MCO 4710.8, Uniform Criteria for Repair Cost Estimates Used in Determination of Economical Repair, provides the instructions to be followed in determining the eligibility of an item of equipment, except for commercial-use vehicles, for repair. 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 Base organizations 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 (estimated cost of repairs 10 percent or less of the standard unit price or one-time expenditure limit of engineer equipment) 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 (estimated repair cost 10 percent of the standard unit price of 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, the Marine Corps has instituted programs at both Logistics Support Bases to ensure the

quality of the equipment issued to field activities. The current edition of MCO 4855.2, Marine Corps Supply Center Quality Control Program, describes the established program. To provide the necessary information from units on the quality of equipment received, the Quality/Reliability Report was developed. Information on this report is contained in the current edition of MCO 4855.6, Quality and Reliability Reporting.

2. A quality control program will be established in all Base organizations performing equipment maintenance. Specific guidelines are established in paragraph 5003 of this Order. 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. ENGINEER EQUIPMENT REPAIR CRITERIA

1. The policy and procedures for the replacement and repair of tactical engineer equipment are contained in the current edition of MCO 4710.8, Uniform Criteria Repair cost estimate used to determine economical repairs. The order provides the criteria to be used in the determination of the economical reparability of equipment to preclude the unnecessary expenditure of maintenance funds when item replacement is more economical.

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

#### 8007. RECOVERABLE ITEMS PROGRAM

1. The purpose of the Recoverable Items Program (RIP) is to ensure recovery and evacuation or disposal of principal repairable items which are excess to an organization's requirements, require repair that is beyond the capability of the activity, or are not economically repairable 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 in the current edition of MCO P4400.82, Controlled Items Management Manual.

2. Determination of the condition of equipment to be reported in the program is the responsibility of maintenance organizations. The Base Maintenance Management Officer is tasked with consolidation and submission of Recoverable Item Report.

3. Maintenance organizations will submit their reports in the format contained in the current edition of BO 4400.8.

#### 8008. REPLACEMENT AND EVACUATION PROGRAM

1. The Replacement and Evacuation (R&E) program is designed to extend the service 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 using activities. The program is explained in Chapter 6 of the current edition of MCO P4400.82, Controlled Item Management Manual.

2. Nomination of equipment assigned to Base organizations will be coordinated by the Base MMO.

#### 8009. 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 assigned to Marine Corps posts and stations costing \$1,000.00 or more, which are used in equipment repair facilities or in the construction, alteration, maintenance or repair of buildings, bridges, roads and other real property are included in the program.

2. The current edition of MCO 11260.3 establishes the program and provides policy and procedures for its management. The order provides guidance on inventory management



procedures, repair/replacement criteria, identification markings and identification listing. The life expectancy in the order is a prime factor in the computation of maximum one-time expenditure limits.

3. Form NAVMC 10560 shall be used for recording discrepancies discovered during preliminary inspections and in determining repair costs. This form will support requests for disposition instruction of items declared as excess and requests to exceed repair cost limitations. Vehicles will be inspected and serviced in accordance with the time interval prescribed by the applicable manufacturer's maintenance, service and repair manuals.

8010. GARRISON MOBILE (MATERIALS HANDLING AND AUTOMOTIVE) EQUIPMENT PROGRAM

1. Management, Acquisition, and Use of Administrative Motor Vehicles are governed by the current edition of MCO 11240.46. This Order provides generalized procedures for the proper operation and maintenance management of administrative-use vehicles and equipment.

2. Current editions of MCO 11240.46, 11240.47, 11240.48 and TM 4700-15/1 establish procedures for the scheduling and performance of safety and maintenance services on administrative use vehicles and equipment. While under warranty, vehicles and equipment will be inspected and serviced in accordance with the intervals (miles/months) prescribed by the applicable manufacturer's maintenance, service, and repair manual. Following expiration of warranty, schedules will be adjusted, if necessary, to adhere to the intervals prescribed in MCO's 11240.46, 11240.47, 11240.48 and TM-4700-15/1.

3. Current editions of MCO's 11240.46, 11240.47 and 11240.75 provide criteria to be used in determining economical repair or replacement of vehicles and equipment. These orders also provide life expectancy of vehicles and equipment.

STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

INDEX

A

Assistance team . . . . . 5004

C

Calibration . . . . . 2009  
Contact teams . . . . . 2012

D

Desk-top procedures . . . . . 1004

E

Economical repair . . . . . 8004

F

Fiscal support . . . . . 3007

G

Garrison mobile equipment . . . . . 2008, 8009

I

Inspections . . . . . 5001  
Introduction to maintenance management . . . . . 1000

M

Maintenance:  
  Capability . . . . . 2004  
  Facilities . . . . . 6000  
  Operator assignment . . . . . 2001  
  Policy . . . . . 2000  
  Preventive . . . . . 2005  
  Related programs . . . . . 8000  
  Shop operations . . . . . 2003

STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

Modification control program . . . . . 2007  
 Modification of equipment . . . . . 2006

N

New equipment . . . . . 3004

P

Publications:

Allowances . . . . . 7002  
 Checklists for effective publications . . . . . 7003  
 Commercial equipment . . . . . 7007  
 Control system . . . . . 7004  
 General . . . . . 7000  
 Libraries . . . . . 7006  
 Requisitioning . . . . . 7005  
 Responsibilities . . . . . 7001

Q

Quality control . . . . . 5003, 8005  
 Quality deficiency report (QDR) . . . . . 8003

R

Reconciliation of requisitions . . . . . 3005, 7005  
 Records . . . . . 2011  
 Recoverable items program . . . . . 8007  
 Repair parts:  
     Control . . . . . 3002  
     Direct exchange . . . . . 3003  
     Requisitioning . . . . . 3001  
 Replacement and evacuation (R&E) program . . . . . 8008  
 Reports . . . . . 2011  
 Responsibilities:  
     Command . . . . . 1001  
     Staff . . . . . 1002

S

Safety . . . . . 2013  
 Standing operating procedures . . . . . 1003  
 Supply support . . . . . 3000



STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT

T

Tool management . . . . .	3006
Training:	
Civilian employee . . . . .	4005
Correspondence . . . . .	4002
Cross training . . . . .	4002
General . . . . .	4000
Maintenance management . . . . .	4004
Methods . . . . .	4002
On-the-job training (OJT) . . . . .	4002
Requirements . . . . .	4001
Technical . . . . .	4003
Time allocation . . . . .	2002
Turnover files . . . . .	1004

V

Validation of requirements . . . . .	3005, 7005
--------------------------------------	------------









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