



UNITED STATES MARINE CORPS
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION
SAN DIEGO, CALIFORNIA 92140-5001

DepO P4790.1C w/ch 1, 2, 3
4
2 NOV 1994

DEPOT ORDER P4790.1C w/ch 1, 2, 3

From: Commanding General
To: Distribution List

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

Ref: (a) MCO P4790.1B
(b) MCO P4790.2C
(c) TM 4700-15/1G

Encl: (1) LOCATOR SHEET

1. Purpose. To promulgate policies and procedures for the conduct of effective equipment maintenance and maintenance management programs within Marine Corps Recruit Depot, San Diego.
2. Cancellation. DepO P4790.1B
3. Information. This Manual is applicable to all maintenance organizations within MCRD. It will serve as a basic document for the conduct of all maintenance management activities except when directives issued by this and higher Headquarters take precedence.
4. Summary of Revision. This revision has been completely reformatted and contains a substantial number of changes and must be completely reviewed.
5. Recommendations. Recommendations regarding the effectiveness of this Manual are invited and should be submitted via the chain of command to the Commanding General (AC/S, G-4/MMO).
6. Certification. Reviewed and approved this date.


G. E. SMITH
Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION
SAN DIEGO, CALIFORNIA 92140-5001

DepO P4790.1C Ch 1

4

25 JAN 1995

DEPOT ORDER P4790.1C Ch 1

From: Commanding General
To: Distribution List

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

Encl: (1) New Page Inserts to DepO P4790.1C

1. Purpose. To transmit new page inserts to the basic Manual.
2. Action. Remove pages 2-1, 2-5 through 2-14, 3-1, 3-5 through 3-8, 7-1, and 7-3 through 7-10 of the basic Manual. Replace with corresponding pages contained in the enclosure.
3. Summary of Change. Redefines preparation of authorization letters, provides PEB stockage criteria, and identifies the MMO as the Directives Control Point for technical publications.
4. Change Notation. Paragraphs denoted by an asterisk (*) symbol contain changes not previously published.
5. Filing Instructions. File this change transmitted immediately behind the signature page of the basic Manual.


G. E. SMITH
Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION
SAN DIEGO, CALIFORNIA 92140-5001

DepO P4790.1C

4

26 OCT 1995

DEPOT ORDER P4790.1C Ch 2

From: Commanding General
To: Distribution List

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

Encl: (1) New Page Inserts to DepO P4790.1C

1. Purpose. To transmit new page inserts and make pen changes to the basic Manual.

2. Action.

a. Remove pages: iii, 2-1, 2-7 through 2-14, 4-1 through 4-10, and 7-1 through 7-11 of the basic Manual. Replace with corresponding pages contained in the enclosure. Remove Appendix A entirely.

b. Make pen changes as follows:

(1) On page 1-4 paragraph 1000.2.b(2), delete "(defined in Appendix B)".

(2) On page 1-5 paragraph 1002.2., delete the last sentence.

(3) On page 1-8 delete paragraph f and reletter the remaining paragraphs.

(4) On page 2-5 paragraph 2003.3, delete the last sentence.

(5) On page 2-6 paragraph 2004.2, line 3, after "...Fleet Marine Force," add "and do not use MIMMS AIS,". Same page paragraph 2004.2.a, 4th line, delete "...Fleet Marine Corps" and replace with "...Field Maintenance".

(6) On page 3-5 paragraph 3. delete "The Field Contracting Office, MCRD" and replace it with "PCO...".

(7) On page 3-7 paragraph 5.a. add this sentence "Twelve months worth of usage criteria is required to determine average quantities used to accomodate peak demand periods."

(8) On page 5-4 paragraph 5001.3 add "Maintenance Management" before the word PESV. Delete (Appendix A).

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

(9) Change page 7-13 to read 7-12.

(10) Change page B-1 to read A-1.

3. Summary of Change. Redefines who has authority to sign urgency of need designator 'A'. Reemphasizes procedures to turn in unserviceable items to PCO. Identifies the requirement for COTS ADPE items to be input into the DARMS system. Chapter four specifies that the Depot MMC will provide maintenance supervisors training. Chapter seven identifies the Adjutants (Depot and WFTBn) as the Directives Control Points.

4. Change Notation. Paragraphs denoted by two asterisks (**) contain changes not previously published.

5. Filing Instructions. File this change transmittal immediately behind the signature page of the basic Manual.


J. M. GUERIN
Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION
SAN DIEGO, CALIFORNIA 92140-5001

DepO P4790.1C

4

0 5 DEC 1995

DEPOT ORDER P4790.1C Ch 3

From: Commanding General
To: Distribution List

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

1. Purpose. To make a pen change to the basic Manual.
2. Action. On page 4-4, paragraph 4002.1.d cross out "...on a semi-monthly basis." and replace with "...every other month."
3. Summary of Change. Redefines how often maintenance management supervisors training will be conducted.
4. Filing Instructions. File this change transmittal immediately following change 2 of the basic Manual.

A handwritten signature in cursive script, appearing to read "J. M. Guerin".

J. M. GUERIN
Chief of Staff

DISTRIBUTION: A

Depo P4790.1C
2 NOV 1994

LOCATOR SHEET

Subj: STANDING OPERATING PROCEDURES FOR MAINTENANCE MANAGEMENT
(SHORT TITLE: SOP FOR MAINT MGMT)

Location: _____
(Indicate location(s) of copy(ies) of this Manual)

ENCLOSURE (1)

MMSOP

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Entering Change
1	25 Jun 95	28 Jul 99	<i>M. Wight</i>
2	26 Oct 95	28 Jul 99	<i>M. Wight</i>
3	5 Dec 95	28 Jul 99	<i>M. Wight</i>

MMSOP

TABLE OF CONTENTS

CHAPTER	
1	GENERAL INFORMATION
2	MAINTENANCE OPERATIONS
3	SUPPLY SUPPORT
4	TRAINING
5	INSPECTIONS AND VISITS
6	FACILITIES
7	MARINE CORPS PUBLICATIONS
8	MAINTENANCE RELATED PROGRAMS
APPENDIX	
A	MAINTENANCE REFERENCES

MMSOP

CHAPTER 1

GENERAL INFORMATION

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	1000	1-3
COMMAND RESPONSIBILITIES	1001	1-4
STAFF RESPONSIBILITIES	1002	1-5
DESK TOP PROCEDURES & TURNOVER FOLDERS . . .	1003	1-7
MAINTENANCE MANAGEMENT STANDING OPERATING PROCEDURES (MMSOP)	1004	1-9

MMSOP

CHAPTER 1

GENERAL INFORMATION

1000. GENERAL. This Manual establishes MCRD, San Diego's policies and procedures for the management of tactical and garrison equipment maintenance.

1. Objective

a. To provide a comprehensive guide to the management of equipment maintenance functions.

b. To assist commanders and maintenance personnel in planning, controlling and administering MCRD, San Diego's maintenance management program.

c. To establish command and staff relationships and assign responsibilities in the conduct of MCRD, San Diego's equipment maintenance program.

2. Applicability

a. The policies and procedures set forth in this Manual are applicable to all tactical ground equipment, Garrison Mobile Equipment (GME), commercial Communications-Electronics equipment, Training, Audiovisual and Support Center (TAVSC) equipment, and Automated Data Processing (ADP) equipment maintained and serviced by MCRD organizations.

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

(1) Garrison Mobile Equipment (GME). When guidelines for maintenance management of GME found in the Department of Defense, Department of the Navy or Marine Corps directives, specify procedures for maintenance of GME material different from those prescribed in this Manual; those procedures shall take precedence. Specific procedures are left to the discretion of the GME Fleet Manager (GME Fleet Mgr) based on manufacturer's recommendations, conditions of utilization, and compliance with federal, state, local and departmental laws and regulations. The GME Fleet Mgr will establish local maintenance management procedures that are in compliance with applicable directives. Maintenance management of GME should be accomplished in a manner that is most cost effective without compromising safety.

(2) Industrial Plant Equipment (IPE). When IPE (~~defined in Appendix B~~) does not appear on the unit's tables of equipment (T/E) or in the NAVMC 1017 (Table of Authorized Material (TAM)), it is exempt from the provisions of this Manual. IPE is that part of plant equipment with an acquisition cost of \$15,000 or more.

(3) ADP Equipment. Due to the local work request procedures established in Micro Computer Repair for ADP equipment, the Equipment Repair Order (ERO) is not required.

(4) Other. Miscellaneous items excluded from the provisions of this Manual are the appliances used in quarters; push-type lawn mowers; and non-tactical food service equipment.

3. MCRD Organization. The Depot consists of two types of organizations. They are the functional (training and administrative commands (Weapons Field Training Battalion)) and the service organizations (Facilities, Service and Supply, Motor Transport, TAVSC, etc.). Each is structured according to its purpose. For the implementation of maintenance management both organizations are included within the provisions of this Manual. References to the "commander" should be interpreted to apply equally to the commanding officer, director, commodity manager, or section head in the statement of equipment maintenance requirements and responsibilities. Correspondence requiring Commanding Officer approval/authority (for Depot maintenance sections only) will be forwarded to the Assistant Chief of Staff, G-4 for signature.

1001. COMMAND RESPONSIBILITIES

1. The Commanding General, MCRD, San Diego, is responsible for all aspects of the Depot's maintenance management program.

2. Subordinate commanders are responsible for conducting a safe, effective equipment maintenance program within their unit/commodity. In order to fulfill this responsibility, the commander must be aware of the condition of equipment and the status of maintenance within their organization, to include supporting maintenance programs.

3. Subordinate commanders must be prepared at all times to advise this headquarters (AC/S, G-4) on the status of equipment within their respective unit/commodity, in addition to addressing any maintenance related difficulties which cannot be resolved through normal channels/procedures.

4. The logistics capabilities statement contained in the cover letter of a unit's Table of Organization (T/O) authorizes the performance of specific levels of maintenance. These levels will

not be exceeded except when authorized by this or higher headquarters. Maintenance that is beyond the capabilities of Depot units, will be performed by 1st Maintenance Battalion, 1st Force Service Support Group, Base Motor Transport, Marine Corps Base, Camp Pendleton, and/or commercial manufacturers.

5. Subordinate commanders will be assisted in the discharge of their responsibilities relative to equipment maintenance by the assignment of a Maintenance Management Officer (MMO).

1002. STAFF RESPONSIBILITIES

1. Assistant Chief of Staff, G-1 (AC/S, G-1). Serves as the principal Depot Staff Officer on matters pertaining to personnel management, including the assignment and replacement of maintenance personnel.

2. Depot Adjutant. Has staff responsibility for the Depot's publication allowances, maintenance of publications, internal distribution control and requisition control. The Adjutant will review the command's Publication Listing (PL) and determine the requirements by coordinating with the sections that use and maintain publications. ~~Additionally, the Adjutant will ensure the completion of the annual PL review.~~

3. Assistant Chief of Staff, G-3 (AC/S, G-3)

a. Serves as the principle staff officer on matters pertaining to technical training of maintenance personnel.

b. Informs the MMO of technical and formal maintenance related schools and requests quotas for the same.

c. Exercise staff cognizance over the maintenance management program for the Training and Audio Visual Support Center (TAVSC).

4. Assistant Chief of Staff, G-4 (AC/S, G-4)

a. Serve as the principal Depot Staff Officer on matters pertaining to logistics, equipment maintenance, facilities, supply support, food service, and safety.

b. Exercise staff cognizance over the Maintenance Management Program for Motor Transport, Facilities Maintenance, Ordnance, and the entire Depot Maintenance Management Program.

5. Assistant Chief of Staff, Comptroller (AC/S, Compt). Serve as the principal Depot Staff Officer on matters pertaining to internal control, guidance, and management of appropriated funds.

6. Assistant Chief of Staff, Communications Information Systems Department (AC/S, CISD). Exercise staff cognizance over the Maintenance Management Program for the Communications and Microcomputers commodities.

7. Depot Maintenance Management Officer (MMO). Serves as a Special Staff Officer to the Commanding General, under the staff cognizance of the AC/S, G-4.

a. MMO is responsible for exercising staff supervision over all aspects of the maintenance program. The MMO, in conjunction with the Commodity Managers, will assist the commander by coordinating the Depot's maintenance resources. The MMO will exercise principal staff cognizance over the maintenance management functional areas as listed in chapter 1 of MCO P4790.2.

b. In addition to the above, the MMO will prepare the Depot's Standing Operating Procedures for Maintenance Management.

c. Conduct the Maintenance Management Performance Evaluation Staff Visit (PESV) inspections.

8. Commodity Managers. Commodity managers are those special staff officers assigned duties as managers of special or technical commodity areas. They will work closely with the MMO in maintenance related areas. Specific duties of the commodity managers are listed below, as well as in chapter 1 of MCO P4790.2.

a. Establish and maintain effective Maintenance Management Programs within the commodity.

b. Monitors the deadline rates, aggressively striving to upgrade the unit's equipment readiness.

c. Advises higher headquarters of critical maintenance problems and recommended courses of action to remedy these problems.

d. Coordinates introduction of new equipment and establishes supporting maintenance programs.

e. Implements effective equipment modification, corrosion control, calibration, preventive maintenance, corrective maintenance, and publication control programs.

f. Reviews equipment records for accuracy and ensures prompt submission of all changes of status on deadline equipment.

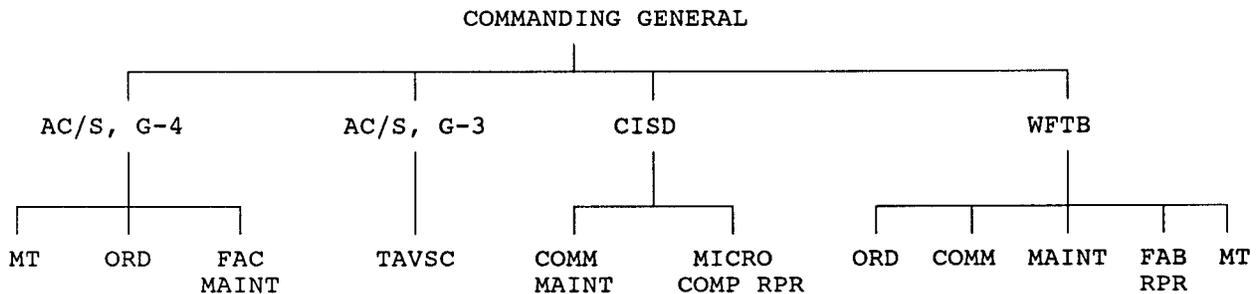
g. Plans maintenance work based on the maintenance level authorized, priority, level of personnel experience, operational schedule, and the availability of parts, tools, and equipment.

h. Inspects equipment and equipment records quarterly. Ensures that the required records are maintained properly and that performed maintenance conforms to established standards.

i. Establishes and conducts a technical training program (MOS/maintenance management) for all personnel under their cognizance.

j. Maintains close liaison with the Military Personnel and Human Resource sections to anticipate and preclude personnel shortage problems.

9. Maintenance Organizations. The following maintenance organizations fall within the cognizance of the G-4 as far as maintenance management is concerned. The chart below specifies where these individual organizations fall within the Depot.



1003. DESKTOP PROCEDURES AND TURNOVER FOLDERS. The frequent changeover of personnel results in a lack of long-term expertise and continuity in many day-to-day operations. The use of desk top procedures and turn-over folders ensures the efficiency of a command's maintenance program.

1. DESKTOP PROCEDURES. Desk top procedures will be established on billets involving administrative and management functions relative to the equipment maintenance program. The information in the desk top procedures should be a simple listing of everyday operations and will include responsibilities, personal contacts, phone numbers, building numbers, required reports, and current references.

2. TURNOVER FOLDERS. Turnover folders are to be maintained by supervisory personnel. They include information about policy, personnel, names, phone numbers, building numbers, status of pending projects, references, management controls, methods of accomplishing routine and infrequent tasks, and information that would be of value to an individual newly assigned to that billet. Turnover folders will contain the following at a minimum:

- a. Title of billet.
- b. Organizational structure.
- c. To whom the individual reports and subordinate billets.
- d. Mission of the billet.
- e. Basic functions involved in accomplishing the billet mission.
- ~~f. Regular tasks and basic functions performed in day-to-day operations.~~
- f. List of orders, directives, technical manuals deemed pertinent to the billet.
- g. List of required reports received and submitted, including dates of receipt/submission.
- h. Internal and external relationships within the organizational chain of command, including unofficial liaison and coordinating instructions, brief statements concerning the type of matters on which the internal and external agencies are consulted.
- i. Personnel contact list, phone numbers, addresses, purpose of contact.
- j. Past, pending, and anticipated projects which should be itemized and continuously kept current.
- k. Miscellaneous information:
 - (1) Administrative procedures.
 - (2) Operational procedures.
 - (3) Additional duties.
 - (4) Coordination of dual responsibilities.

3. Desk top procedures and turnover will be reviewed annually for accuracy and applicability by the commodity manager. The date and signature of the individual reviewing the desktop/turnover file will be included with the manual. Additionally, they will be reviewed 30 days prior to job turnover.

4. Desk top procedures and turnovers folders will be maintained by the billets indicated below. The list is not all encompassing and some sections may not possess all listed billets or may have one individual performing several billets. Therefore, it may be more

practical to have the turnover folder/desk top procedure address each billet separately.

<u>Billet</u>	<u>Desk-top Procedures</u>	<u>Turnover Folder</u>
a. Maintenance Management Officer		X
b. Maintenance Management Chief		X
c. Commodity Manager		X
d. Maintenance Supervisor		X
e. Maintenance Chief/Shop Chief		X
f. EROs Clerk	X	
g. Calibration Control Clerk	X	
h. Publications	X	
i. Modifications Control Clerk	X	
j. Records Clerk	X	
k. Training Clerk	X	
l. Toolroom personnel	X	
m. Supply personnel	X	
n. As designated by commodity managers	X	

1004. MAINTENANCE MANAGEMENT STANDING OPERATING PROCEDURES (MMSOP). The MCO P4790.2 establishes the requirements for unit MMSOPs. The order also states that when instructions published by higher headquarters (to include this Manual) are sufficiently clear, completely applicable at the unit level and sufficiently detailed, such instructions should be referenced in lieu of repeating the contents of the instruction. Therefore, MMSOP's below the Depot level are not required. However, if a subordinate unit/section deems that additional, specific procedures are required and not covered by this Manual, unit/section policy notices may be published.

MMSOP

CHAPTER 2

MAINTENANCE OPERATIONS

	<u>PARAGRAPH</u>	<u>PAGE</u>
MAINTENANCE POLICY	2000	2-3
MAINTENANCE CATEGORIES, ECHELONS, & AUTHORITY	2001	2-3
ASSIGNMENTS OF OPERATORS/CREWS	2002	2-5
ALLOCATION OF MAINTENANCE TRAINING/ PERFORMANCE TIME	2003	2-5
SHOP OPERATIONS	2004	2-6
MARES REPORTABLE EQUIPMENT	2005	2-8
EQUIPMENT THAT EXCEEDS MAINTENANCE CAPABILITIES	2006	2-8
PERFORMANCE OF MAINTENANCE SERVICES	2007	2-9
SAFETY	2008	2-13
LOAD LIFTING DEVICES	2009	2-13
RECOGNITION OF PERFORMANCE	2010	2-14
SAMPLE AUTHORIZATION LETTER FROM COMMODITY TO G-4		2-15
SAMPLE AUTHORIZATION LETTER FROM G-4 TO 1ST FSSG		2-16

MMSOP

CHAPTER 2

MAINTENANCE OPERATIONS

2000. MAINTENANCE POLICY

1. The management of equipment maintenance at all levels of command will be accomplished through the established maintenance management system set forth in the MCOs P4790.1, P4790.2, and other maintenance related directives issued by higher headquarters and as set forth in this Manual.

2. Maintenance operations are directed toward maintaining the highest degree of equipment readiness. The following maintenance actions are required:

- a. Preventive Maintenance (PM).
- b. Corrective Maintenance (CM).
- c. Equipment inspection.
- d. Equipment recovery.
- e. Equipment evacuation.
- f. Equipment modification.
- g. Equipment calibration.
- h. Support equipment/publication control.
- i. Equipment records.
- j. Maintenance training.
- k. Maintenance supervision.
- l. Quality Control (QC) and Quality Assurance (QA).

3. The Depot MMO will ensure that PM and CM programs are established, administered and conducted per appropriate directives and manuals. Commodity Managers will ensure that personnel adhere to proper PM and CM practices.

2001. MAINTENANCE CATEGORIES, ECHELONS AND AUTHORITY

1. Maintenance Categories and Echelons. The Department of Defense (DOD) categories of maintenance are Organizational, Intermediate,

and Depot Maintenance. The Marine Corps further subdivides the maintenance categories into echelons of maintenance (EOM) to more accurately identify capabilities.

a. Organizational Level. Maintenance in this category consists of functions performed in the first and second echelons. Applicable functions and the performing agency at each echelon are:

(1) First Echelon. That maintenance performed by the user or operator of the equipment. It includes the proper care, use, operation, cleaning, preservation, lubrication and such adjustment, minor repair, testing, and parts replacement as may be prescribed by pertinent technical publications, tools and parts allowance.

(2) Second Echelon. Second echelon maintenance is that work performed by specially trained personnel in the activity/organization. Appropriate publications authorize the second echelon of maintenance, additional tools and necessary parts, supplies, test equipment, and skilled personnel to perform maintenance beyond the capabilities and facilities of first echelon.

b. Intermediate Level (Third and Fourth Echelon)

(1) Third Echelon. Third echelon maintenance is that authorized by appropriate publications to be performed by specially trained personnel either in an intermediate or organizational role.

(2) Fourth Echelon. That maintenance normally associated to semifixed or permanent shops of intermediate maintenance activities and frequently associated to organizational shops of units with a commodity peculiar mission.

c. Depot Level (Fifth Echelon). Maintenance requiring major overhaul or complete rebuild of parts, subassemblies, assemblies, or end items. Maintenance will be accomplished through a combination of depot support organic to the Marine Corps, inter-service depot maintenance support agreements, and contractor support, if required.

2. Maintenance Authority. The Table of Organization (T/O) indicates the maintenance authority of each organization within the Depot. The authorized maintenance categories and echelons are contained within the "Logistics Capability" statement of the T/O. Maintenance functions will be performed only within the echelon authorized.

a. Requests for temporary assignments of higher echelons of maintenance can be submitted to the Commanding General, MCRD/WRR, San Diego (Attn AC/S, G-4). If requested, commodity managers must ensure that the necessary resources and maintenance personnel are available.

b. Sections requesting a permanent T/O change will submit the request to the Commandant of the Marine Corps via the AC/S, G-4 and AC/S, G-1 (Attn: Manpower Assistance Division). Requests for T/O changes will be submitted in accordance with MCO P5311.1.

2002. ASSIGNMENT OF OPERATORS/CREWS

1. When possible, a specific operator/crew will be assigned to each item of equipment for the performance of operator maintenance. When responsibility for an item of equipment cannot be assigned to a specific operator, consideration should be given to appointing a responsible individual to oversee the PM of the equipment.

2. For safety reasons, at no time will an operator operate a piece of equipment that they are not properly trained/licensed to operate.

3. All vehicle operators assigned as drivers will be trained, tested, and licensed in accordance of DepO 11240.2.

4. A current listing of equipment requiring the assignment of operators will be included in the commodity manager's turnover folder.

2003. ALLOCATION OF MAINTENANCE TRAINING/PERFORMANCE TIME

1. Commodity managers will ensure that adequate time is allocated for completion of required equipment maintenance and maintenance training. It is essential that technical (MOS and maintenance management), operator, and maintenance supervisor training receive emphasis equal to that given to operations and tactical training. Specific requirements are discussed in Chapter 4 (Training) of this Manual.

2. Commodity Managers are to allocate sufficient time for the performance of all maintenance services while undergoing tactical exercises or unit training.

3. PM services are to be scheduled and completed in accordance with appropriate technical manuals and directives. For guidance on the scheduling and conduct of preventive maintenance services refer to paragraph 2006 of this chapter. ~~Assigned operators will accompany equipment during semi-annual and annual PMs with the exception of GMB.~~

4. Maintenance services will be performed under the control of qualified maintenance supervisors. Personnel who possess only basic skill levels will be provided skilled supervision during maintenance operations.

2004. SHOP OPERATIONS. The Depot MMO and commodity managers are responsible to the Commanding General for the effective operation of maintenance shops. They will ensure that procedures are established which provide for systematic forecasting and scheduling of equipment maintenance, orderly work flow, safe and efficient use of resources and a functional quality control system. Detailed shop operation requirements are provided in this Manual, MCO P4790.2 and the TM 4700-15/1.

1. Shop Supervisors and Key Personnel. Commodity managers will designate, in writing, key supervisory personnel within their shop. This list will include the title, authority, and corresponding responsibility granted each key billet, as well as the location where organizational maintenance shall be performed. Subject list will be maintained in both the commodity manager's and in the key billet's turnover folders.

2. Recording Maintenance. Due to the diversity of each commodity within MCRD San Diego, coupled with the fact that we are not part of the Fleet Marine Force, makes it impossible to use one standard procedure for recording maintenance actions. This, however, is in no way an excuse for not recording maintenance actions. All maintenance on Depot equipment will be recorded using one of the following methods:

a. NAVMC 10245 (Equipment Repair Order (ERO)). All maintenance will be recorded on an ERO with the exceptions as noted on page 2-2-1 in TM 4700-15/1G and as noted below. Since all Depot commodities are classified as non-FMSS (~~Fleet Marine Corps~~ *Field Maintenance* Subsystem) supported, maintenance personnel must familiarize themselves with ERO preparation instructions for non-FMSS units as outlined in TM-4700-15/1G.

b. NAVFAC 9-11200/3A (Shop Repair Order (SRO)). The SRO will be used to authorize maintenance services, to record maintenance services performed, and parts used on Garrison Mobile Equipment (GME).

c. MCRD Armory Automated Storage and Retrieval System (AS/RS). The AS/RS is an automated system capable of recording maintenance very similar to the MIMMS AIS system used in the FMSS. This system will be used to record maintenance actions conducted on the weapons within the Depot Armory. At least one year's worth of maintenance information must be available in the data base at all times.

* d. CISD Work Request: CISD uses the DP Umbrella Program to prepare local work requests to record maintenance performed on the Depot's automated data processing equipment (ADPE). Work requests are generated at the help desk when trouble calls are phoned in. Since the trouble calls may be forwarded to one of

** three maintenance sections which don't all deal with ground equipment (Microcomputer Repair, Telephone Repair, or LAN), this procedure is sufficient for recording maintenance actions for the Microcomputer Repair Unit.

3. Maintenance Recording Procedures. Regardless of which of the above methods are used for recording maintenance on the Depot's equipment, the maintenance management policies and procedures established in MCO P4790.2 and TM-4700-15/1 are equally applicable to all commodities.

a. Priority Assignments. Commodity managers will assign priorities to maintenance and supply requests in accordance with the criteria contained in MCO 4400.16. The Depot maintenance activities/organizations (to include WFTBn) are assigned a Force Activity Designator (F/AD) of IV, and the associated priority designators of 07, 09, and 14.

b. Priority Upgrade. At the organizational level, maintenance and supply priorities may be upgraded to meet operational commitments upon authorization from the appropriate designated personnel. The upgrade of priority designators for equipment that has been evacuated to IMA will be accomplished by letter from the Commanding General/Officer. When the priority of a maintenance request is upgraded, an additional signature and the date will be required if the original signer does not possess the authority to assign a higher priority.

** c. Signature Authority. All maintenance requests will be signed by personnel designated to do so by the Commanding Officer via letter. MCRD maintenance commodities will bring all Urgency of Need Designator A (priority 07) EROs and parts requisitions to the Assistant Chief of Staff, G-4 for approval (paragraph 1000.3 applies).

* d. Authorization Letters. Commodities who utilize the Intermediate Maintenance Activities (IMA) at Camp Pendleton will submit a list to the AC/S, G-4 (MMO) of personnel who are authorized to sign ERO/EROSLs by priority and personnel who are authorized to turn in and receipt for equipment. The AC/S, G-4 (MMO) will consolidate all the commodities into one letter, route it for sample signatures, and forward it to 1st Maintenance Battalion, 1st FSSG. Authorization letters will be renewed on an annual basis (no later than 30 January) or as required. Examples of the authorization letters are contained at the end of this chapter.

e. Deadline Control Date (DCD) with Category Code "P". Proper use of the DCD on category code "P" EROs is essential. If a non-reportable principle end item is deadlined, the DCD block of the ERO will reflect the date the equipment entered this

status. If the item requires critical repairs but is mission capable, no DCD is required.

2005. MARES REPORTABLE EQUIPMENT. Because the Depot is non-FMF and not using the MIMMS AIS, we do not generate an LM2 Report. The AC/S, G-4; however, must be informed of the quantities and status of the Depots MARES reportable equipment. Accordingly, the commodities holding this type of equipment must submit a report to this office on a quarterly basis containing the following information:

<u>TAMCN</u>	<u>NOMENCLATURE</u>	<u>AUTH QTY</u>	<u>O/H QTY</u>	<u>STATUS/REMARKS</u>
--------------	---------------------	-----------------	----------------	-----------------------

(Electronic transmissions will be sufficient).

2006. EQUIPMENT THAT EXCEEDS MAINTENANCE CAPABILITIES

1. General. All equipment exceeding the maintenance capabilities of Depot Sections, as defined in the current T/O, will be evacuated to the intermediate maintenance facility (military or commercial). Equipment awaiting or undergoing CM at the IMA must receive scheduled maintenance services. Sections will make arrangements to accomplish scheduled maintenance services by coordinating with the appropriate IMA facility.

2. Evacuation Criteria for TAM Equipment

a. TAM equipment will be evacuated to the next higher echelon of maintenance when repairs exceed the sections authorized echelon of maintenance. Subject equipment will have:

(1) A 2nd echelon ERO opened which indicates that the equipment is awaiting evacuation.

(2) All 1st and 2nd echelon maintenance completed prior to evacuation.

(3) All 2nd echelon parts identified and requisitioned.

b. Equipment will be evacuated to the next higher echelon of maintenance regardless of the echelon of maintenance when a combat essential item is deadlined for a lack of facilities or required skilled personnel and the deadlined item materially affects the mission of the section.

3. Evacuation procedures for commercial-type equipment will be specified in the owning activities Commodity Manager or Maintenance Supervisors turnover folder.

4. Equipment Being Coded Out. Equipment evacuated to 1st FSSG that requires repairs exceeding 65 percent of the current cost; or determined to be uneconomical to repair; or requiring depot level repair, will be coded out and processed in accordance with MCO P4400.82 and the instructions provided below.

a. All open EROs and outstanding requisitions for repair parts to the end item will be maintained until the Letter of Unserviceable Property (LUP) is received from the maintenance facility.

b. When the LUP is received, the requisitions will be cancelled and ERO's closed. Repair parts that have been received will be redistributed to satisfy demands on other open ERO's. If no other demands exist for that particular repair part, the item will be rolled back.

c. Requisition of a replacement item will be accomplished in accordance with DepO P4400.7.

** d. Commercial items which are determined to be uneconomical to repair will be turned into the commodity supply chief, who will in turn establish a DD Form 1348. The commodity supply chief will turn in the DD Form 1348, along with the unserviceable item to PCO. PCO will process the item for turn in to the Defense Reutilization Marketing Office (DRMO) (DepO P4400.7 applies).

** e. Commercial off the Shelf (COTS) ADPE will be advertised in the Defense Automation Resources Management System (DARMS) for a period of six months (by PCO) prior to turn-in to DRMO.

2007. PERFORMANCE OF MAINTENANCE SERVICES

1. Preventive Maintenance (PM). PM is a systematic program of inspecting, cleaning, servicing, lubricating, and adjusting. An effective PM program will assist in preventing complex and time consuming repairs. The most critical period for proper supervision of PM is upon completion of exercises or operations. Before, during, and after checks and services often are not done in accordance with appropriate TMs. This results in degraded equipment, which consumes additional maintenance resources for restoration. Preventive maintenance services are frequently referred to as scheduled maintenance and they include:

a. PM services performed by the operator or crew on a daily, weekly, or special occurrence basis.

b. PM services performed by organizational maintenance personnel assisted by the operator or crew on a calendar, mileage, rounds, or hours of operation basis.

2. Deferred Preventive Maintenance Services. Deferment of scheduled maintenance due to operational commitment or other reasons requires the written approval of the Commander owning the equipment.

3. Corrective Maintenance (CM)

a. Acceptance Phase. The acceptance phase is when the maintenance shop schedules equipment reported as requiring maintenance into the shop's workload, conducts an initial acceptance inspection, and assigns the equipment to the appropriate section within the shop.

(1) Acceptance Inspection. The purpose of the acceptance inspection is to ensure that the item of equipment is complete and ready for the required maintenance. Acceptance inspection procedures are as follows:

(a) Determine that the equipment is complete and that appropriate operator maintenance, including cleaning, has been performed.

(b) Verify that the ERO/SRO has been properly prepared, to include matching equipment serial numbers and identification number with appropriate records.

(c) Perform an initial diagnostic of the equipment failure or component malfunction.

(d) Determine the course of action to follow to accomplish the required maintenance, whether it is corrective or preventive in nature.

(2) Acceptance Scheduling. The purpose of acceptance scheduling is to have the equipment arrive at the facility when the required maintenance resources are available. Due to the random failure of equipment, acceptance scheduling is not always practical for equipment requiring corrective maintenance. The following factors influence acceptance scheduling:

(a) The nature of the PM or CM.

(b) The equipment requirements of the using section.

(c) Type of equipment.

(d) Availability of maintenance resources.

(e) Performance of maintenance by another facility.

b. Equipment Induction Phase

(1) Induction is the physical commitment of the ERO/SRO and the associated equipment requiring maintenance to the assigned shop section.

(2) The maintenance shop should call for the equipment at the time that the resources are available to perform the required maintenance.

c. Active Maintenance Phase. This phase is performed in a sequence of logical steps, designed to ensure that required maintenance is conducted in an efficient and effective manner. During this phase, a continual emphasis is placed on the quality control of the maintenance actions, and tasks performed. The steps to be followed in conducting active maintenance are:

(1) Inspection of Equipment. Personnel assigned to perform the required maintenance will perform a detailed inspection of the equipment inducted into the shop. This inspection includes:

(a) Locating, identifying, and inventorying the equipment and its components.

(b) Verifying all paperwork associated with the required maintenance for completeness and accuracy.

(c) Checking to determine the status of all required modifications according to all appropriate technical manuals.

(2) Preparation for the Performance of Maintenance Actions. This preparation includes the gathering of the appropriate technical manuals, other technical data, and support and test equipment to perform the maintenance action.

(3) Isolation of the Cause for the Equipment's Malfunction. Isolate the probable cause of the equipment's malfunction using appropriate support and test equipment and proper malfunction procedures as described in the applicable technical manuals.

(4) Procurement of Required Materials and Repair Parts. Maintenance personnel, prior to requisitioning parts and materials, will verify their request through proper technical research procedures.

(5) Fault Correction/Performance of Preventive Maintenance Services. Accomplish required maintenance in accordance with applicable technical manuals and accepted, sound maintenance practices. Those maintenance actions that are completed will be properly recorded on the ERO/SRO to provide information for future management decisions on equipment.

(6) Checking of Completed Maintenance Actions on the ERO. Maintenance personnel will check their completed work by performing the necessary final adjustments to the repaired equipment. Adjustment and calibration procedures in the applicable technical publications will be followed in detail.

(7) Equipment Checking. Quality control requires a complete equipment checkout to ensure that the required maintenance actions have been properly conducted and that the equipment will perform satisfactorily under actual or simulated operational conditions.

(8) Cleanup of Shop Area. Time and resources must be allocated to clean up the maintenance area. Support and test equipment, including tools, must be cleaned, serviced, and inventoried in order to be ready for future use.

d. Maintenance Closeout Phase

(1) The closeout phase commences when the required maintenance has been performed/completed, and the serviceable item is to be returned to the using unit, or further maintenance requirements dictates an evacuation to a higher echelon.

(2) Maintenance managers must ensure that the closeout phase is accurate, complete, and coordinated. Equipment records must be completed correctly in accordance with current directives.

4. Modification Control Program. The purpose of the Commodity Managers Modification Control Program is to provide the unit commodity managers with a readily available means of accurately determining the modification status of assigned equipment. Modification records within the Depot will be reviewed during formal inspections. An automated system is authorized providing the automated system contains the same information required by NAVMC 11053 or 11054.

a. As new MI's are published, they must be entered on the commodity managers modification control records. As MI's are applied, they are entered on the equipment records, and on the modification control records.

b. Quarterly, as the new SL-1-2/1-3 is published, ensure that all MI's listed for the equipment ID number are listed on the modification control record. Add any modifications that have been added to the SL-1-2.

c. TM-4700-15/1 and MCO P4790.2 contain detailed information on modification record keeping.

5. Calibration Control Program. Test Measurement and Diagnostic Equipment (TMDE), and other maintenance related support equipment authorized by the section's CMR or by special allowance. The calibration of TMDE will be accomplished per the guidance provided in MCO P4790.2, TM 4700-15/1, TI 4733/15 and this Manual.

a. Inventories. The annual calibration inventory provides a basis for the unit's calibration program; therefore, it must be accurate and complete. MCO P4790.2 and TM 4700-15/1 provide amplifying guidance for conducting an annual inventory. The following procedures are to be implemented:

(1) Annual TMDE inventories will be conducted no later than 31 October and forwarded to the Assistant Chief of Staff, G-4 (Attn: MMO).

(2) During the inventory, commodity managers should evaluate the calibration category of TMDE and determine if a lesser category (special, inactive, or calibration not required (CNR) is practical.

b. A 2nd echelon ERO is not required for calibration. Prepare a 3d echelon ERO as directed in TM 4700-15/1 and evacuate the TMDE to the supporting maintenance facility.

c. Commodities may use the manual or automated calibration control program as directed by TM 4700-15/1.

d. Commodities requesting to use a calibration facility other than Electronics Maintenance Company, 1st Maintenance Battalion or the Infantry Weapons Gauge Calibration Exchange Program (IWGCEP) will submit requests in writing with adequate justification to the Assistant Chief of Staff, G-4 (Attn: MMO).

2008. SAFETY

1. Safety is Paramount. Conscientious efforts must be made to recognize, eliminate, and warn against safety hazards encountered in maintenance areas. The overall program of safety rests with the Depot Safety Officer.

2. The commodity managers and MMO will work directly with the safety officer to stress safety in all maintenance operations. It is the responsibility of each commander/commodity manager to publish, post and enforce safety regulations peculiar to specific facilities under their authority.

2009. Load Lifting Devices. All load lifting devices will be inspected and load tested as required in accordance with current directives.

2010. Recognition of Performance. Supervisors, assigned staff/officers, and commanders must constantly evaluate, not only the progress of the maintenance program, but the performance of assigned personnel.

1. Recognition. Procedures shall be established to recognize maintenance personnel for significant contributions to the mission of the unit. Maintenance personnel will have the opportunity to compete in all organizational recognition programs on an equal basis with personnel of other specialties.

2. Correction. Supervisors at all levels will take corrective action where evaluation indicates substandard performance. Disciplinary action, if required, is the reward of negligence, indifference, and inadequate performance of assigned maintenance duties.

MMSOP

SAMPLE AUTHORIZATION LETTERS FROM COMMODITY TO AC/S, G-4

Heading

From: (Commodity)
To: Assistant Chief of Staff, G-4 (MMO)
Via: (if applicable)

Subj: PERSONNEL AUTHORIZED TO SIGN EROS/EROSLS AND TURN-IN AND
RECEIPT FOR EQUIPMENT FROM THE IMA

Ref: (a) DepO P4790.1C
(b) MCO P4400.16G

1. Per the reference, the following personnel are authorized to sign EROs/EROSLs (or Work Requests) for the following priorities:

<u>NAME</u>	<u>RANK</u>	<u>SSN</u>	<u>PRIORITY</u>
-------------	-------------	------------	-----------------

2. The following personnel are authorized to turn-in and receipt for equipment from the IMA:

<u>NAME</u>	<u>RANK</u>	<u>SSN</u>
-------------	-------------	------------

3. Point of contact is:

Signature

MMSOP

SAMPLE AUTHORIZATION LETTER FROM AC/S, G-4 TO 1ST FSSG

Heading

From: Commanding General
To: Commanding Officer, 1st Maintenance Battalion (MOS)
Via: Commanding General, 1st FSSG (G-4/MMO)
Subj: PERSONNEL AUTHORIZED TO SIGN EROS/EROSLS BY PRIORITY
AND TURN IN AND RECEIPT FOR EQUIPMENT FROM THE IMA
Ref: (a) MCO P4790.2B
(b) MCO P4400.16G
(c) DepO P4790.1C

1. Per the references, the following personnel are authorized to sign EROs/EROSLs for the priorities listed.

<u>NAME</u>	<u>RANK</u>	<u>SSN</u>	<u>PRI</u>	<u>SIGNATURE</u>
a. ARMORY				
b. MOTOR TRANSPORT				
c. CISD				
d. FACILITIES MAINTENANCE				

2. The following personnel are authorized to turn-in and receipt for equipment from the IMA for the commodities listed below.

<u>NAME</u>	<u>RANK</u>	<u>SSN</u>	<u>SIGNATURE</u>
a. ARMORY			
b. MOTOR TRANSPORT			
c. CISD			
d. FACILITIES MAINTENANCE			

3. Point of contact at MCRD is SSgt Pearce at 524-1268 ext 1355.

XXXXXXXXXXXXX
By direction

MMSOP

CHAPTER 3

SUPPLY SUPPORT

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	3000	3-3
REPAIR PARTS CONTROL	3001	3-3
REPAIR PARTS REQUEST SYSTEM	3002	3-4
PRE-EXPENDED BINS (PEB)	3003	3-5
VALIDATION AND RECONCILIATION	3004	3-7
TOOL SETS, CHESTS, AND KITS	3005	3-8
NEW EQUIPMENT	3006	3-9
CANNIBALIZATION & SELECTIVE INTERCHANGE	3007	3-9
SAMPLE NAVMC 708 FOR RECORDING PEB USAGE		3-11

however, the documentation, storage, and issue of repair parts will remain the same.

3. Commercial Sources of Supply: In addition to the support provided by DSSC, commercial sources of supply may be used for obtaining services and supplies not in the Marine Corps Supply System. ~~The Field Contracting Office,~~^{PLA} MCRD will provide the necessary guidance in obtaining commercial support. DepO 4200.6 applies.

3003. PRE-EXPENDED BINS (PEB). PEBS provide the advantage of having selected repair parts prepositioned at a maintenance activity to facilitate the timely completion of routine repair work. The primary reason for maintaining PEB items is to enhance maintenance operations and economical management of low-cost, fast moving, expendable items.

1. Pre-expended bins (PEB) may be established in maintenance activities in strict accordance with MCO P4790.2, MCO P4400.150, and this Manual. The decision to authorize PEBs and approve their contents on the Depot rests with the Assistant Chief of Staff, G-4 and with the Commanding Officer for commodities at Weapons Field Training Battalion.

2. Per MCO P4400.150, PEB stockage criteria is based on U/P and item usage.

* a. The U/P criteria for PEB stockage must be less than or equal to \$100.00 per unit of issue.

* b. The usage criteria are as follows:

* (1) For those items applied/consumed as a full U/I, the usage criteria is six unit of issues applied/consumed in six months (six hits in 12 months for Reserve units).

* (2) For those items applied/consumed as less than a full U/I, the usage criteria is one unit of issue applied/consumed in 6 months (those items applied/consumed as less than a full U/I may be stocked based on usage or at a fixed level -- see paragraph 5022.5d, following).

* (3) When the total dollar value of a PEB item applied is less than \$25. it is not mandatory to capture usage data via Class I systems. Usage can be compiled using the most logical method deemed appropriate by the unit commander. Examples include manual records, local data base, or MIMMS/SASSY usage data.

* c. Consumables approved for stockage as PEB items will not exceed 30 days of supply for each using unit based on average demand over the previous 12 months.

* d. Those consumables applied in quantities less than a full U/I (e.g., box, hundred, mix, etc.) are authorized to be stocked in quantities not to exceed two full U/I's or 30 days of supply based on usage, whichever is greater.

* e. To accommodate peak demand periods for units supporting intermediate/depot level (fourth and fifth echelon) maintenance, the highest 2 month's usage of the previous 12 month's history may be averaged to establish 30 days of supply for the line item. Further, additional exceptions are authorized for these same units that identify specific, peculiar usage patterns for any U/I. These exceptions must be justified in writing during a scheduled review and will not exceed the U/P limitation.

* f. Broken U/I's (i.e., 98 washers left over from a U/I of 100) which are ordered against a corrective maintenance ERO that do not meet PEB criteria are authorized to be retained as a PEB item until exhausted or for a period not to exceed 1 year. These items will be added to the authorized PEB list. They must be identified, on the list, as broken U/I's and reflect the date they were added to the list. These items will not be reordered as PEB items when exhausted.

3. When PEB items have been selected, prepare and submit a request for PEB authorization to the appropriate commander. Requests will contain the following usage information concerning the items authorized for storage:

- a. Nomenclature
- b. NSN/Part Number
- c. Quantity Authorized
- d. Reorder Point (ROP)
- e. Unit of Issue
- f. Unit Price

4. Once approved and established, a PEB requires close and continuous management. PEBs will be conservatively established and carefully reviewed in each organization/commodity on a quarterly basis in order to make timely adjustments to items and/or inventory levels authorized. PEBs will be reviewed/approved by the Depot MMO annually.

5. Documenting PEB Usage. As parts are used, usage must be recorded. Usage will be compiled using the most logical method deemed appropriate by the Commander or Commodity OIC. Examples include manual records or a local data base. Stock Record and Inventory Control Cards (NAVMC 708) are highly recommended for documenting PEB usage. An example is contained at the end of this chapter.

a. PEB usage must be maintained for at least six months in order to determine criteria. *Twelve months worth of usage criteria is required to determine average quantities used to accommodate peak demand periods.*

b. Copies of usage data will be provided to the approving authority when the PEB letter is submitted for approval. The usage data is essential for determining whether or not a part meets PEB stockage requirements.

6. Broken units of issues may be added to the PEB authorization letter as stated in MCO P4400.150. These items must be identified, on the list, as broken U/I's and reflect the date they were added to the list. These items will not be reordered as PEB items when exhausted.

7. Rollback action is required for those items which fail to meet the PEB criteria.

3004. VALIDATION AND RECONCILIATION

1. General

a. Validation: The process by which requirements are confirmed, to include verification of receipts, cancellations, and update of status.

b. Reconciliation: The process by which a maintenance activity ensures that validated requirements are properly lodged in the supply system.

c. Equipment Repair Parts (ERO) Bin. Referred to as "layettes", these bins contain the repair parts, following their receipt, until they can be applied to a specific piece of equipment. Normally, layettes will be located in either the maintenance or supply sections.

2. Validation Requirements

a. Daily. A shop/records clerk will accomplish the following:

(1) Ensure that any required parts requisitions are filled out for ERO's/SRO's opened the previous day which require parts.

(2) Ensure that all material received from the supply source has been issued to a mechanic or stored in a layette.

(3) For all ERO's/SRO's requiring parts, ensure that valid requisitions are held by the unit/section supply clerk.

b. Biweekly. After completion of the daily validation, once each two weeks, the shop/maintenance officer/chief will accomplish the following:

(1) Review the daily validation procedures to ensure that they are being done properly.

(2) Ensure that all ERO's/SRO's cite the actual condition and status of the equipment.

(3) Inventory the contents of all layettes by comparing the appropriate parts requisition form or SRO to the quantity on hand. Annotate the parts requisition or SRO with any changes and report any requirements to the unit/section supply.

(4) Reconcile each parts requisition with the outstanding requisitions held by DSSC.

(a) Identify those parts no longer required and cancel requisitions.

(b) Identify those parts received but not shown as received by DSSC.

(c) Identify those parts not received but shown as received by DSSC.

(d) Follow up on the status of each requisition. Request that the supply officer initiate action on those requisitions which are past due or require follow up actions.

3. Reconciliation. Reconciliation procedures with DSSC are contained in DepO P4400.10.

3005. TOOL SETS, CHESTS, AND KITS. Accountability of tool sets, chests and kits will be in accordance with MCO P4790.2.

1. Identification. Most tool sets, chests, and kits will not appear on the Depot T/E. Each commodity manager must ensure that

all special allowance tools are properly approved and, if applicable, appear on the units Consolidated Memorandum Receipt (CMR).

2. Inventory. A complete inventory of all tool sets, chests, and kits will be made using the appropriate SL-3, Sl-3 extracts, or local inventory sheet.

a. Inventories will be conducted by the supervisor, individual to whom the equipment is issued, or by an individual designated by the responsible officer. Discrepancies noted during either a monthly, quarterly, or annual inventory (i.e., missing or damaged components) will be resolved in accordance with MCO P4400.150, UM 4400-124, and/or the Manual of the Judge Advocate General (JAG Manual).

b. Inventory control forms will be in accordance with MCO P4790.2, will be maintained on hand for one year, will contain the signatures of the individual conducting the inventory, the supervisor and the date of the inventory, and the date of the SL-3 extract which was used to create the inventory sheet.

3. Journeyman Tools. The requirement for journeyman civilians to provide the basic tools of their trade is explained in the current negotiated Master Labor Agreement.

3006. NEW EQUIPMENT. Upon activation of new equipment, ensure that some degree of operator training, training of maintenance personnel, and required repair parts and supporting and test equipment are available.

3007. CANNIBALIZATION & SELECTIVE INTERCHANGE. Cannibalization is the removal of serviceable parts from one item of equipment to install them on another item of equipment. Selective interchange is the exchange of selected serviceable repair parts/components from a deadlined item of equipment for unserviceable repair parts or components from a like item.

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

2. Cannibalization or selective interchange for commercial type items or station property will not be employed except:

a. When the original acquisition cost of the end-item is \$1,000 or less.

b. When 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.

3. Decisions to use selective interchange/cannibalization will be made by the Commanding General or his representative. Requests will be submitted to the Commanding General (Attn: AC/S, G-4). If authorized, cannibalization/selective interchange will generally be accomplished at the lowest maintenance echelon authorized to remove and replace the part/component.

MMSOP

CHAPTER 4

TRAINING

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	4000	4-3
RESPONSIBILITIES.	4001	4-3
TRAINING REQUIREMENTS	4002	4-4
ON-THE-JOB-TRAINING (OJT)	4003	4-6
TECHNICAL TRAINING.	4004	4-6
CROSS TRAINING.	4005	4-7
CIVILIAN EMPLOYEE TRAINING AND DEVELOPMENT PROGRAM	4006	4-7
TRAINING RECORDS.	4007	4-7
TRAINING DOCUMENTS.	4008	4-8

FIGURES

4-1	SAMPLE FORMAT OF A LETTER REQUESTING 1ST FSSG TRAINING SUPPORT	4-10
4-2	SAMPLE FORMAT OF A CLASS REVIEW SHEET	4-11
4-3	SAMPLE FORMAT OF AN ESSENTIAL DATA SHEET	4-12
4-4	SAMPLE FORMAT OF A LESSON PLAN	4-13
4-5	SAMPLE FORMAT OF A STUDENT OUTLINE	4-14
4-6	SAMPLE FORMAT OF A CLASS ATTENDANCE ROSTER.	4-15
4-7	SAMPLE FORMAT OF A CLASS CRITIQUE	4-16

MMSOP

CHAPTER 4

TRAINING

4000. GENERAL

1. Maintenance training is a command responsibility. MCO 1510 series (Individual Training Standards for Enlisted Marines) establishes MOS training standards to be achieved in order to remain MOS proficient. Commodity managers must possess a copy of the ITS for those Marines under the cognizance. Managers must continually evaluate the training of maintenance personnel to ensure MOS skill progression is being accomplished and that personnel are able to sufficiently accomplish the maintenance mission as outlined in the unit's T/O logistics capability statement.

2. Four areas of maintenance related training require emphasis: operator training, technician training, maintenance supervisor training, and maintenance management functional area training. Operator and technician training requirements may be determined by a review of MCO P1200.7 (MOS Manual), applicable technical manuals, and an inventory testing of operator and technician knowledge levels. Maintenance supervisory and maintenance management functional area training programs should be aimed at isolating trouble spots and implementing corrective actions to upgrade procedures. Functional area training should be aimed at clerk level personnel who operate functional area programs in the commodity area.

4001. RESPONSIBILITIES

1. In those areas where capabilities are inadequate, commodity managers will identify the requirements for and ensure the establishment of appropriate training programs to eliminate the deficiencies. While it is recognized that commodities may require assistance in the conduct of technical training, the ultimate responsibility for identifying the requirements, allotting for time, and ensuring classes are conducted rests with the unit commander.

2. The AC/S, G-3 is assigned overall responsibility for the training program for the Depot.

3. The Depot MMO will ensure that maintenance and maintenance management training requirements are addressed within the Depot's annual plans. In addition, the Depot MMO will assist as required to ensure that effective, viable maintenance training programs are established.

4. Commodity managers will assist and supervise all technical training of mechanics/technicians to ensure that required training is conducted.

4002. TRAINING REQUIREMENTS

1. Commanders will ensure that a minimum of three (3) hours per quarter are scheduled for maintenance related training. Maintenance related training consists of Maintenance Management Training, Maintenance Training, and Operator Training. At least one class from one of these three categories will be taught a month, and at least one of each of the three categories will be taught per quarter. The following are just a few examples of the different types of training:

a. Maintenance Management

Publication Maintenance and Control
 Modification Control
 Calibration Control
 Maintenance Related Programs
 Preventive Maintenance Indicators
 Use of NAVMC 10772
 Equipment Record Procedures
 Product Quality Deficiency Reports
 Preparing EROs, SROs, Work Requests
 Management & use of Pre-Expended Bins (PEB)

b. Maintenance

Use of Technical Manuals & other Technical Publications
 Tool Care and Control
 Conducting a Limited Technical Inspection (LTI)
 Test Equipment Use
 Microcomputer Repair, PA System Maintenance
 Shop Procedures
 ITV or VCR Repair

c. Operator

Preventive Maintenance Procedures
 PA System Operation
 Safety

** d. Supervisory. This training may address the same topics as mentioned above, with emphasis placed on the implementation, direction, control, and review of the maintenance program. Maintenance supervisory training will be provided by the Depot MMC on a ~~semi-monthly~~ *every other month.*

2. In addition to eliminating deficiencies, the training must be designed to satisfy both the current and planned needs of the section. It also should prepare individual Marines to fill positions of higher grade and increased responsibility.

3. Maintenance/maintenance management training may be accomplished in a number of different ways. The methods that can be utilized include: formal schools, organizational training, on-the-job (OJT) training, correspondence courses, training at intermediate maintenance facilities, and civilian courses. The methods selected are dependent on the skill level of the maintenance personnel, the resources available, and the operational commitments.

a. Maintenance Management. Maintenance management training will be conducted for military personnel performing any maintenance management function. Training will be conducted at the organizational and Depot levels, under the direction of the Depot MMC.

b. MOS/Training. MOS training will be conducted under the supervision of the appropriate commodity manager. The commodity manager will be responsible to ensure that all scheduled training is adequate and will recommend changes to the training policy as required. When assigning personnel to conduct periods of instruction, care should be taken to ensure those individuals identified are qualified to conduct the period of instruction. Training of maintenance personnel will include, but is not limited to:

(1) Refresher. Mechanics and technicians will be provided the level and degree of instructions to enable them to perform maintenance duties commensurate with their rank and MOS.

(2) Qualification. Unskilled mechanics and technicians will be placed on a planned schedule of directed training which will qualify them for assignment of a primary MOS per MCO P1000.6.

(3) Clerk. To provide quality leaders for tomorrow, it is important that proper training and guidance be afforded to all Marines. Training should be available to all maintenance personnel regardless of job description.

c. Special Technical Training. This training is directed at a specific MOS or item of equipment. It may be used to upgrade or refresh maintenance knowledge or to provide instructions on new items of equipment.

4. Formal Schools. Service schools will be utilized to the fullest extent possible. All quotas, procedures for application,

and prerequisites for such schools are published annually by the AC/S, G-3. Commanders will ensure that only qualified Marines are nominated for service schools and that quotas granted are met.

4003. ON-THE-JOB-TRAINING (OJT)

1. On-the-Job Training (OJT) may be used as a program leading to the assignment of an MOS or as refresher training on new or unfamiliar procedures and equipment. Personnel undergoing OJT must be teamed with experienced and qualified personnel to ensure that only proper methods and procedures are highlighted to trainees. Subject training should be formally scheduled, documented, and recorded in the section's training records.

2. On-the-Job training is often done on an opportune basis, particularly when a new or unfamiliar method, problem, or procedure is encountered during normal maintenance production. All maintenance personnel are assembled and an on-the-spot class is conducted covering the subject area. When applied properly, OJT can be used to effectively accomplish MOS training, maintenance cross training, and new equipment training. Supervision and instruction of OJT must stress the application of approved maintenance procedures and techniques to instill sound maintenance practices and habits in the personnel being trained. Personnel undergoing OJT will be tested at least semiannually to determine their progress. Results of the testing will be documented.

3. Training assistance from 1st FSSG maintenance activities is often available for inclusion in unit OJT programs. Requests for such training should be addressed to 1st FSSG via this Headquarters (AC/S, G-4) (see Figure 4-1). Training support from IMAs will be dependent on commitments and availability of FSSG personnel.

4. The Marine Corps Institute (MCI), the Department of the Army, and other services, offer a wide range of maintenance related correspondence courses. Commodity managers are strongly encouraged to coordinate with MMOs and Training Officers to determine the content and availability of such courses for unit maintenance personnel. Supervisory personnel should pay close attention to the series of maintenance and maintenance management related courses developed by MCI.

4004. TECHNICAL TRAINING

1. Technical training (skill progression MOS training) is required for all technicians and maintenance supervisors and will be provided the level and degree of instruction necessary to perform maintenance duties per rank and MOS. Specific technical training classes will be scheduled and conducted when new types of equipment

are introduced or new maintenance personnel are introduced to unit equipment.

2. Periodic testing of technician knowledge will be conducted upon completion of technical training using the Individual Training Standards as a guide. Refresher training will be conducted for noted deficiencies. Additionally, specific classes will be scheduled and conducted regarding the use and maintenance of all support and test equipment (e.g., use and care of tools, use and care of TMDE, etc.).

4005. CROSS-TRAINING

1. While the cross-training of maintenance personnel is not directed by this or higher headquarters, it is encouraged as a management tool to be used at the organizational level to assist in the overall maintenance efforts. Additionally, cross-training provides the shop/maintenance officer with increased flexibility in maintenance operations.

2. When cross-training is used, commodity managers will ensure that:

a. Cross-training is normally confined to personnel within the same or related occupational fields.

b. Cross-training of personnel from different occupational fields is being accomplished only to fill valid requirements.

c. Maintenance shops keep a record of all unit personnel who have been cross-trained.

4006. CIVILIAN EMPLOYEE TRAINING AND DEVELOPMENT PROGRAM

1. Training Policy. The Human Resource Officer is responsible, in conjunction with the appropriate Depot section head, for the training of civil service employees aboard the Depot. This responsibility includes the training necessary for maintenance of journeyman skills and training required to introduce maintenance personnel of all Depot sections to new equipment and procedures.

2. Requests for Training. Requests for formal training will be submitted in accordance with DepO 12410.9, Civilian Employee Training and Development.

4007. TRAINING RECORDS

1. Training records provide the manager with the means to administer the unit/shop level training program. Without such

records, the training program may suffer from an inadvertent omission of necessary training.

2. The following training records will be kept by training NCOs:

a. Annual Training Plans. Annual training plans contain information on training planned for the forthcoming calendar year. The training program related to maintenance, maintenance management, and maintenance supervisory training will be spelled out in detail in the quarterly training bulletin and will be published in more general terms in the annual training plan.

b. Quarterly Training Directives. If published, the quarterly training directive delineates, specifically, what classes will be conducted during the quarter. It may or may not schedule classes specifically as to time and place, at the unit's option, but should, as a minimum, state what training will be conducted.

c. Monthly Training Bulletins. These bulletins will indicate, specifically, where a period of instruction will take place, who will deliver the period of instruction, who will attend, and when the period of instruction will take place.

d. Attendance Roster. Attendance rosters will be maintained for each period of instruction held. A recommended format for attendance rosters is figure 4-6.

e. Critique Sheets. Evaluation of maintenance training will be conducted. Records of such evaluations will be maintained by the sponsor of the training. A recommended format for monitor evaluation is figure 4-7.

f. Lesson Plans. A file of lesson plans will be maintained by the sponsor of that training. If these lesson plans are prepared for use more than once, they must be reviewed prior to re-use and certified as current or revised, prior to the conduct of training. A recommended format for monitor evaluation is figure 4-4.

4008. TRAINING DOCUMENTS

1. The following document descriptions are provided to assist section training programs (all are not required).

a. Review Sheet. (Optional) A sheet of paper attached to the overall lesson plan which allows the reviewer to sign as approved or make remarks directed to the lesson content.

b. Essential Data Sheet. (Optional) A preview of the overall information required by an instructor prior to class.

c. Lesson Plan. (Optional) That part of the course which provides the instructor ready reference to the information to be taught in class.

(1) Introduction. An area of the lesson plan which provides the instructor the ability to gain attention and motivate the class prior to the purpose and main ideas.

(2) Purpose and Main Ideas. Presents the overall purpose and requirements to the students.

(3) Transition. A smooth flow from the course introduction to the body of the subject.

(4) Body. The main content of information to be delivered to the class.

(5) Summary and Review. Re-emphasis of information presented in class. This information is not intended to re-teach the subject.

(6) Closing Statement. A sharp statement which will emphasize the main points of the subject to each student.

d. Student Outline. (Required) A prearranged handout to enable the student to reinforce learning objectives. Handouts may have fill-in-the-blank areas either filled in prior to class or left blank for completion during class.

2. Assembly and Filing. Each lesson plan package should be filed for future use. The information contained in each lesson will reduce time consuming research and revision. Recommend the following assembly be utilized:

a. Highlighted extract of the scheduled class from the unit training schedule.

b. Class Review Sheet (Figure 4-2).

c. Essential Data Sheet (Figure 4-3).

d. Lesson Plan (Figure 4-4).

e. Student Outline (Figure 4-5).

f. Class Attendance Roster (Figure 4-6).

g. Class Critique (Figure 4-7).

3. Formats. Figures 4-2 through 4-7 are recommended formats provided for the training NCOs to use.

MMSOP

Heading

4790
Code
Date

From: Commanding General, MCRD/WRR, San Diego
To: Commanding General, 1st Force Service Support Group (MSU)
Via: Commanding General, 1st Force Service Support Group
(AC/S, G-4/MMO)

Subj: 1ST FORCE SERVICE SUPPORT GROUP (1ST FSSG) TRAINING
SUPPORT

Ref: (a) GruO P4790.3C

1. Per the reference, it is requested that below listed class be conducted by the Intermediate Maintenance Activity.

<u>TYPE OF TRAINING</u>	<u>NUMBER OF INSTRUCTORS</u>	<u>DATE/TIME</u>	<u>LOCATION</u>
-------------------------	------------------------------	------------------	-----------------

2. Point of contact is I. M. Marine, G-4/MMO, 524-1354.

Signature
By direction

NOTE 1: Forward this request at least 30 days prior to class.

NOTE 2: Type of training must be explicit for the instructor to develop the right type of lesson plan covering the topic of instruction.

Figure 4-1. -- Sample Format of a Letter Requesting 1st FSSG Training Support.

MMSOP

CLASS REVIEW SHEET

TITLE:

DATE:

PREPARED BY:

REVIEW DATE

SIGNATURE

Figure 4-2. -- Sample Format of a Class Review Sheet.

MMSOP

ESSENTIAL DATA SHEET

SUBJECT	CLASS TITLE
DATE PREPARED	19 August 1994
CLASS ROOM REQUIREMENTS	Chalkboard, Seating for twenty, Good lighting, Electricity
STUDENT REQUIREMENTS	Paper, Student Outlines, TM 4700-15/1, UM 4790-5
PURPOSE AND MAIN IDEAS	The purpose of this period of instruction is to enable each student to review and submit quality reports and records by requirements outlined in Chapter 4.

Figure 4-3. -- Sample Format of an Essential Data Sheet

MMSOP

CLASS TITLE

LESSON PLAN

A.	INTRODUCTION	(2) MINUTES
	1. GAIN ATTENTION:	
	2. MOTIVATE:	
B.	PURPOSE AND MAIN IDEAS	(2) MINUTES
C.	TRANSITION	(1) MINUTE
D.	BODY	(40) MINUTES
E.	QUESTION AND ANSWER PERIOD	(5) MINUTES
F.	SUMMARY AND REVIEW	(5) MINUTES
G.	CLOSING STATEMENT	(2) MINUTES

Figure 4-4. -- Sample Format of a Lesson Plan.

MMSOP

STUDENT OUTLINE

PURPOSE:

STUDENT REFERENCES:

ENABLING LEARNING OBJECTIVES:

TERMINAL LEARNING OBJECTIVES:

OUTLINE:

Figure 4-5. -- Sample format of a Student Outline.

MMSOP

CLASS ATTENDANCE ROSTER

CLASS TITLE _____

INSTRUCTOR _____

LOCATION/SECTION _____

DATE _____

RANK	NAME	SECTION	RANK	NAME	SECTION
1.	_____	_____	18.	_____	_____
2.	_____	_____	19.	_____	_____
3.	_____	_____	20.	_____	_____
4.	_____	_____	21.	_____	_____
5.	_____	_____	22.	_____	_____
6.	_____	_____	23.	_____	_____
7.	_____	_____	24.	_____	_____
8.	_____	_____	25.	_____	_____
9.	_____	_____	26.	_____	_____
10.	_____	_____	27.	_____	_____
11.	_____	_____	28.	_____	_____
12.	_____	_____	29.	_____	_____
13.	_____	_____	30.	_____	_____
14.	_____	_____	31.	_____	_____
15.	_____	_____	32.	_____	_____
16.	_____	_____	33.	_____	_____
17.	_____	_____	34.	_____	_____

Figure 4-6. -- Sample Format of a Class Attendance Roster.

MMSOP

CLASS CRITIQUE

CLASS TITLE _____

DATE/TIME _____

INSTRUCTOR _____

REVIEWER _____

1. Did the instructor present the learning objectives prior to the class?

YES NO

2. Was the period of instruction presented in a manner which was easy to follow?

YES NO

3. Were training aids used?

YES NO

4. Did the instructor provide detailed answers to questions?

YES NO

5. General comments:

Figure 4-7. --Sample Format of a Class Critique.

MMSOP

CHAPTER 5

INSPECTIONS AND VISITS

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	5000	5-3
FORMAL INSPECTIONS	5001	5-3
INFORMAL INSPECTIONS	5002	5-4
INSPECTION REPORTS	5003	5-5
CORRECTION OF DISCREPANCIES	5004	5-5

MMSOP

CHAPTER 5

INSPECTIONS AND VISITS

5000. GENERAL. Inspections and visits are the principle means available to commanders by which they can ascertain whether their planning and organizations are sound, their staffs are functioning effectively and if their directives are clear, well understood and being effected by their subordinates. Inspections and visits also enable commanders to evaluate their unit's effectiveness in using maintenance resources. Inspections and visits are divided into two categories, formal and informal.

1. Policy. Inspections/visits will be constructive, based on realistic and measurable inspection standards, and conducted by competent inspectors.

2. Inspection Requirements

a. The Depot MMO/MMC will conduct one formal and one informal maintenance management inspection (PESV) annually.

b. Commodity managers will conduct (informal) internal inspections at least once each quarter.

5001. FORMAL INSPECTIONS. Formal inspections include those conducted by the Field Supply and Maintenance Analysis Office (FSMAO), Inspector General of the Marine Corps (IGMC), and the Commanding General's Performance Evaluation Staff Visit (PESV). Subject inspections are usually announced in advance and a standard procedure for the conduct of the inspection promulgated. Reports of these inspections shall be retained by each maintenance section for a period of two years. This headquarters will schedule and/or conduct formal inspections of Depot units. Inspection schedules will be published by the Depot Inspector's office.

1. Field Supply and Maintenance Analysis Office (FSMAO)

a. FSMAO visits are established to provide the Commandant of the Marine Corps with direct field representation at the unit level by analyzing the effectiveness of supply and maintenance management procedures. The purpose of a FSMAO is to analyze the effectiveness of unit supply and maintenance procedures, to determine the efficiency of the units being analyzed, and to furnish assistance and guidance in supply and maintenance operations and procedures.

b. FSMAO visits will be conducted every two years or upon command request. Analysis visits are announced at least 30 days

prior to the inspection by correspondence. Analysis visits conducted by the FSMAO teams are detailed and normally last between one and two weeks.

c. FSMAO prepares two written reports, the checklist and the formal report. The checklist provides comments on all discrepancies noted during the analysis visit and serves as an excellent tool to monitor progress on corrective actions. Approximately 30 days after the analysis visit, FSMAO submits a formal written report, containing significant findings and recommendations. The report is provided to the Commanding General via the chain of command.

d. The analyzed unit will endorse the report within 30 days and forward it to this headquarters (Attn: AC/S, G-4) via the chain of command. The checklists will be retained as a working checklist during the interval between analyses. Each via addressee will review the FSMAO report, take appropriate action, and endorse the report within 15 days. Analysis report endorsement formats are contained in MCO P4400.160.

2. Performance Evaluation Staff Visit. The PESV of maintenance management functional areas is a technical inspection conducted by the Depot MMO/MMC at least once a year or upon request.

3. Checklists. There are several checklist available; the checklist found in MCO P4790.2, the FSMAO checklist, and the PESV checklist (Appendix A). *Maintenance Management*

5002. INFORMAL INSPECTIONS

1. Informal inspections are used to obtain first hand information about a unit and its operating procedures. One feature which distinguishes a visit from an inspection is the absence of a senior commander or officer designated as an inspector.

a. Staff/Assistance Visits. The most common type of a visit is the staff visit, whereby one or more staff officers of a senior headquarters visit a subordinate unit for a specific purpose. Staff visits are performed to investigate troublesome areas and to exchange information.

b. Liaison Visits. Visits between maintenance managers of units operating adjacent to each other and between supported units and their support maintenance activity are strongly encouraged.

2. Commodity managers will continually observe their administrative, maintenance and training efforts to ensure that they are prepared at all times for inspection from higher authority.

5003. INSPECTION REPORTS

1. The purpose of written reports is to inform the appropriate chain of command of inspection results.
2. After an inspection by an external agency the consolidated report received from the agency will be subdivided for dissemination to the individual commodities. Inspection results will be maintained on file for a period of two years.

5004. CORRECTION OF DISCREPANCIES

1. Maintenance sections will take immediate action to correct discrepancies. Per DepO P5041.22, a written report of the corrective action taken is submitted to this headquarters (Attn: Dep Insp) within 30 days of the inspection.
2. Follow-up inspections are conducted within six months to ensure all discrepancies are corrected and new procedures implemented.

MMSOP

CHAPTER 6

FACILITIES

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	6000	6-3
CONSIDERATIONS FOR MAINTENANCE FACILITIES . .	6001	6-3
FACILITIES MAINTENANCE OFFICER	6002	6-4
STORAGE AND CONTROL	6003	6-4

MMSOP

CHAPTER 6

FACILITIES

6000. GENERAL. The Depot MMO will assist commanders in determining the assignment priorities for available facilities. In determining facility assignments, consideration should be given to mutually supporting shop locations and essential comfort of assigned personnel. Drainage should be a primary consideration when establishing maintenance facilities in an unimproved maintenance area.

6001. CONSIDERATIONS FOR MAINTENANCE FACILITIES. In addition to the foregoing, the following considerations should also be given careful evaluation prior to the allocation of maintenance facilities.

1. Shop Layout. Shop layout should provide for efficient work flow, safety to personnel and economical use of support and test equipment. MCO P4790.2 provides guidance for basic shop layout and location requirements for specific situations.
2. Utilities. When possible, utilities should be located for mutual support of all commodity technical operations (wash racks, lube racks, etc.).
3. Supply Issue Points. When possible, a common issue point should be established to service all commodities' customers.
4. Protected Storage. Protected storage areas must be established and provided for storage of flammable supplies (fuel, oils and lubricants, paint, etc.) in accordance with current safety directives.
5. Fire Protection. A fire fighting plan will be established and fire fighting equipment positioned prior to any shop operation.
6. Hazardous Areas. Hazardous areas will be clearly marked in accordance with current safety directives. Noise protective equipment will be provided to all assigned personnel.
7. Controlled Movement. Points of entrance/exit will be established and marked. Traffic will be regulated.
8. Inspection and Holding Areas. Inspection areas will be organized to provide an orderly flow into the shop, initial and final inspections, and holding spaces for equipment awaiting pickup.

9. Shop Office. The shop office should be located adjacent to the inspection area for the ease of processing administrative maintenance management support provided by the shop office. Office personnel must have access to all shop spaces.

10. Joint Use Areas. Joint use areas must be located to provide shop personnel access to:

- (1) Required tool kits, sets, and chests.
- (2) A technical library.
- (3) Shop store/pre-expended bins.
- (4) Scrap collection points.
- (5) Active maintenance areas.

6003. FACILITIES MAINTENANCE OFFICER. The facilities maintenance officer should be informed of any deficiency in facilities regarding maintenance, so that corrective action may be initiated. Once identified, requests for the assignment of additional facilities or improvements to existing maintenance facilities should be made directly to Facilities (Attn: FacsMaintO) via the AC/S, G-4.

6004. STORAGE AND CONTROL. MCO P4790.2 should be reviewed concerning the assignment, responsibilities, use, upkeep, and control of maintenance facilities and storage areas.

MMSOP

CHAPTER 7

MARINE CORPS PUBLICATIONS

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	7000	7-3
RESPONSIBILITIES	7001	7-3
ALLOWANCE CONTROL	7002	7-4
INTERNAL DISTRIBUTION CONTROL	7003	7-7
INVENTORY CONTROL	7004	7-7
REQUISITION CONTROL	7005	7-8
COMMERCIAL PUBLICATIONS	7006	7-9
ERRORS IN TECHNICAL PUBLICATIONS (NAVMC FORM 10772)	7007	7-9
SAMPLE LETTER REQUESTING PL UPDATE OR REQUISITIONING PUBLICATIONS		7-11
SAMPLE PUBLICATION REQUISITION RECEIPT FROM MCPDS		7-12

MMSOP

CHAPTER 7

MARINE CORPS PUBLICATIONS

7000. GENERAL

1. One of the essential resources contributing to an effective equipment maintenance program is an up-to-date library of maintenance related publications. MCO P5600.31 and MCO P4790.2 require commanders to ensure that a full allowance of authorized maintenance related publications are on hand, effective internal distribution control procedures are established, that publications are maintained and up to date, and that prompt action is taken to adjust inventories as requirements change. Insufficient reference material will impede upon the maintenance effort.

2. The term "publication" used throughout this manual includes both directives (orders, bulletins, etc.) and technical publications. There are three categories of publications in the Marine Corps system; technical publications (equipment associated), technical publications (non-equipment associated), and non-technical publications (directives). The different types of publications will be covered in more detail later on in this chapter.

3. Due to the Depot's employment concept, only one publications library is required by each maintenance activity within the maintenance shop. This library will include all publications required to fulfill the organization's maintenance mission. Publications beyond the unit's echelon of maintenance may be maintained based on the need to know.

a. In setting up a technical library, it is necessary to consider both technical publications (TMs, SLs, LOs, etc.) and orders, bulletins, etc., since both are contained in the library.

b. The technical library is dynamic in the sense that it is constantly changing (new publications, changes to old publications, publications that get lost or worn out have to be replaced). Therefore, setting up the library is only half of the task. It is necessary to set up a system to support continuing operation of the technical publications library.

7001. RESPONSIBILITIES. The publication control system operations are managed by the Depot Adjutant, Depot MMC, and each commodity section head. There are four inter-related functional areas of the system: publications allowance control (which publications are required), internal distribution control (how publications are handled to ensure that the right publications get to the right

place in the right quantity), inventory control, (how publications are maintained once they are in the library), and requisition control (how publications shortfalls are replaced).

7002. ALLOWANCE CONTROL. Publications allowances are managed via the individual activity's code (IAC) Publication Listing (PL). The PL is a computerized printout of authorized publications which are automatically distributed by the publications stock control point at the Marine Corps Logistics Base, Albany, Georgia.

1. It is the responsibility of the Depot Adjutant and the Depot MMC, with the assistance of each section head to maintain the PL and ensure all required allowances are properly established. Left untouched, the PL often becomes outdated due to the revision and promulgation of publications by Headquarters Marine Corps (HQMC). An outdated PL may very well force a section to go without essential information and will often cause the section to receive publications that are no longer required.

** a. The **Depot Adjutant** is the Directives Control Point (DCP) for MCRD maintenance commodities, and the **Battalion Adjutant** is the DCP for WFTBn maintenance commodities.

* b. The Depot Maintenance Management Chief manages the technical publications for the maintenance commodities aboard the Depot. This includes all TMs, TIs, SLs, MIs, etc., which are found in the SL-1-2.

2. PL Management. In order for the Directives Control Point (DCP) to effectively manage the Depot's PL, it is the responsibility of each section to ensure that their PL is current. A reconciliation will be conducted quarterly when the SL-1-2/1-3 is updated and published.

a. All Depot Maintenance commodities (to include WFTBn) will utilize the Publication Library Management System (PLMS) to manage their PL and IDL. This program is updated with the new SL-1-2/1-3 on a quarterly basis and has proven to be an asset for publication management. The Depot MMC will ensure the program is distributed on a quarterly basis.

b. When additions, deletions, or changes in allowance quantities are required, submit a letter to the DCP requesting the desired changes. The DCP will make the appropriate adjustments and generate a new PL to the section. A sample letter is contained at the end of this chapter.

3. The publications allowance control system consists of step-by-step procedures, beginning with which and how many publications are required, and ending with a PL update. There are three categories of publications involved: Technical publications, which are

associated with specific items of equipment (TM for the M16A2 rifle); technical publications which are not associated with specific equipment (TM 4700-15/1, SL-1-2); and non-technical publications or directives (orders and bulletins). These three categories of publications will be taken through a series of six steps which will culminate in an updated PL.

a. Technical Publications - Equipment Associated. The types of publications in this category include TMs, MIs, TIs, SL-3s, SL-4s, etc. The SL-1-2 microfiche will be used to locate each type of equipment and identify publications associated with that equipment. A separate control form will be completed for each ID number.

(1) Step One: Determine Equipment

(a) Verify equipment allowances using the T/E, T/O, Special Allowances, etc. Remember to include equipment which your section supports, not just that which you own.

(b) Prepare control forms per each equipment item.

(2) Step Two: Determine Publications

(a) Determine authorized echelons of maintenance using the T/O cover page or special authorization letters.

(b) Using the SL-1-2 microfiche, determine the publications associated with each equipment ID number. Include all publications applicable to your echelon of maintenance. Include all MI's regardless of the echelon of maintenance.

(3) Step Three: Determine Copies

(a) This is a judgement call based on the number of equipment supported and number of technicians or mechanics who may be using the publication at one time.

(b) Consider the working conditions; is the publication going to be used in a clean shop or around grease or oil?

(4) Step Four: Determine Prefix Control Numbers

(a) To determine PCNs refer to NAVMC 2761, SL-1-2/1-3 and current PL.

(b) Record the PCN on the inventory control form.

(5) Step Five: Analyze Requirements

(a) Now that you have decided what publications you need, how many, and recorded that information along with the PCN on the publication control forms, it is time to analyze and refine the requirements for the PL.

(b) You may need to change the quantity you originally entered on the publication control form.

(c) Bounce the listing against the section's IDL published by the Depot Adjutant.

(6) Step Six: Update the PL if required, by submitting a letter to the Directives Control Point.

b. Technical Publications Non-Equipment Associated. The types of publications in this category include NAVMCs, UMs, FMs, SLs, TIs, etc. The identification of these publications is not as easy as it is with equipment associated publications.

(1) Step One: Not applicable.

(2) Step Two: Determine publications using the following resources:

(a) MCOs, Command Orders, SOPs.

(b) FSMAO/IG/PESV reports/checklists.

(c) Personal knowledge/experience.

(d) Thorough review of the SL-1-3.

(3) Steps Three - Six: Same as above for technical equipment associated publications.

c. Non-Technical Publications. These types of publications are Marine Corps Order/Bulletins, Depot Orders, etc. The requirement to hold these publications is primarily based on judgement. The existence and use of these publications are made known by references used in orders and SOPs, inspection reports, and a thorough review of NAVMC 2761 (for MCO and MCBul) or Bulletin 5215 series checklists for all other levels in the chain of command. To decide whether or not a publication is required, ask the question "Does this publication contain information I need to accomplish the mission of my section?". Non-technical publications will be grouped on control forms by SSIC.

(1) Step One: Not applicable.

(2) Step Two: Determine publications using the following resources:

- (a) NAVMC 2761.
- (b) Command 5215s, adjacent/higher command 5215s.
- (c) References in SOPs/Orders.
- (d) Inspection reports/checklists.

(3) Step Three: Same as Technical Equipment Associated publications.

(4) Steps Four - Six: Same as Non-Technical Equipment Associated publications.

7003. INTERNAL DISTRIBUTION CONTROL. The publications internal distribution control system ensures that automatically distributed publications are properly routed to the sections who need them. The internal distribution control system is managed by the DCP; however, each Commodity Manager must designate a Publication Clerk who will maintain an Internal Distribution Listing (IDL) for that commodity. Commodity Managers must be well aware of the Internal Distribution Control System in order to properly manage publications on hand and recommend changes to update the PL.

1. The key document throughout this system is the IDL. The IDL is a listing that identifies a section's current established allowances, in addition to providing a graphic display and location of all publications received on automatic distribution. It is important to keep in mind that the total number on automatic distribution listed on the IDL must match the corresponding quantity found on the unit's most up-to-date PL.

2. As mentioned earlier in this chapter, maintenance commodities throughout the Depot will utilize PLMS to maintain their IDL.

3. All publications will be distributed by the DCP regardless of whether the publications are on automatic distribution or requisitioned. Once a publication is received, the section should validate the publication against their IDL to ensure proper identification and receipt.

7004. INVENTORY CONTROL. The inventory control function consists of procedures for handling publications once they have arrived at the shop/office. The procedures established in the inventory control function area must be thoroughly employed by the publication librarians on a day-to-day basis to ensure that Marines/civilians have up-to-date publications available to them.

1. Publication condition relates to the state of directives and manuals on the library shelf. Publications must be up-to-date with all changes properly entered. On hand quantities in each library

must match the quantities shown in the "Copy Location/Internal Distribution" column of the internal distribution form. If on hand quantities continually fall short of authorized allowances, the cause may be an ineffective internal distribution control system. Other causes may be poor publication checkout procedures or the absence of locator sheets. MCO P4790.2 contains detailed instructions for using other library management tools.

2. Filing Publications. Publications may be filed using one of three methods:

- a. By publication type, based on short title.
- b. By equipment type.
- c. By ID code (SSIC).

When a publication is removed from its file location, locator sheets should be used to indicate the current location.

3. Publication Changes. Publication changes are issued either by message or published document. Changes range from simple pen changes to page replacements. When a change to a publication is received, take the following action:

a. Complete the change in the basic publication as directed, ensuring pen changes are complete, legible and old pages are removed/destroyed.

b. Annotate the cover page of the publication with "W/Ch XX" immediately following the publication short title.

c. Update the "Record of Changes" page in the basic publication.

d. Update the control form, IDL, PL as applicable.

4. Inventories. There are two types of inventory methods that may be employed: the wall-to-wall and update inventories.

a. Wall-to-wall inventories should be conducted when libraries are in extreme disrepair or to initially establish what publications are on hand.

b. Update inventories will be conducted whenever an updated NAVMC 2761 and the SL 1-2/1-3 is received.

7005. REQUISITION CONTROL. The requisition control function consists of procedures designed to ensure that publication

shortages are properly identified and promptly requisitioned, and that pending requisitions are updated in a timely fashion.

1. Once a valid requirement exists, sections shall request missing publications, directives, and changes from the DCP via LAN or letter. At a minimum, the request will contain the publication short title (MCO P4790.2), PCN, and quantity. It is important to remember when a basic publication is ordered, all changes will be furnished automatically regardless if needed. However, if only a specific change is required, order accordingly.

2. The DCP will order the publication(s) via the Marine Corps Publication Distribution System (MCPDS). If the publication(s) is in stock, delivery from the stock point will take approximately 2-4 weeks. However, if the publication(s) is not in stock, it will automatically be placed on backorder and once available mailed accordingly.

3. Once placed on order, the DCP will print a copy of the publication requisition receipt from MCPDS and forward it to the commodity. If the transaction listing is not received a week after the request was submitted, ensure liaison is made with the DCP in order to get it. A sample copy of the MCPDS Receipt is provided at the end of this chapter.

4. Upon receipt, the DCP will distribute the publication(s) to the desired section.

5. The DCP is responsible for the follow-ups, status control procedures, and maintenance of pending files for all publications, directives, and changes that have been requisitioned.

6. An effective requisition control system depends on the regular reconciliation of individual requisitions with the MCPDS pending requisition file. A 14-day reconciliation interval is required to ensure that appropriate receipts, follow-ups, and cancellations are identified. Reconciliation with the directives control point may consist of LAN messages, phone conversations, or person to person; however, liaison must be made concerning pending requisitions for all sections maintaining libraries.

7006. COMMERCIAL PUBLICATIONS. Publications distributed by commercial manufactures will be grouped on control forms to include the equipment type, title, and year of the publication.

7007. ERRORS IN TECHNICAL PUBLICATIONS (NAVMC FORM 10772)

1. Publications play a critical role in achieving system and equipment readiness. Because of this factor, accuracy is

essential. NAVMC Form 10772 (Recommended Changes to Technical Publications) provides a medium for accelerating information feedback to the MCLB, Albany to effect the necessary corrections, changes, and/or revisions as appropriate.

** 2. Noted errors in all maintenance related publications and/or recommended changes to publication content or format will be submitted to Marine Corps Logistics Base, Albany, Georgia. (The NAVMC 10772 is pre-addressed for MCLB, Albany, GA).

3. All maintenance commodities will have a supply of NAVMC 10772s on hand.

MMSOP

SAMPLE LETTER REQUESTING PUBLICATIONS LISTING (PL) UPDATE

Heading

From: Commodity Manager
To: Depot Adjutant (DCP) **** FOR MCRD BASED COMMODITIES ****
Battalion Adjutant (DCP) **** For WFTBn COMMODITIES ****
Via: (if applicable)
Subj: PUBLICATIONS UPDATE
Ref: (a) MCO P4790.2B
(b) DepO P4790.1C

1. Per the references, the following information is provided to update the AC/S, G-4 PL.

a. Request the following **additions** to the PL:

Publication: SL-1-2/1-3 PCN: 12000000300
 MCCBul 5215 10207567700

b. Request the following **deletions** to the PL:

Publication: MCBul 3000 PCN: 10202973700
 Msg AD Dir 50100379100

c. Request the following **changes** to the PL:

Publication: MCBul 3000
Action: Change PCN from 10202973300 to 10202973900

2. Further request that the following publications be **placed on order**. These publications are listed on our PL, but we do not have them in the shop.

<u>Publication</u>	<u>PCN</u>	<u>Quantity</u>
MCO 4400.150	10205247401 (Chg #1 only)	1
MCO P3000.11B	10203045102 (Chg #2 only)	1
SECNAVINST 5210.11D	21600280000	2

3. Point of contact is:

Signature

MMSOP

SAMPLE LETTER REQUESTING PUBLICATIONS LISTING (PL) UPDATE

Heading

From: Commodity Manager
To: Assistant Chief of Staff, G-4 (MMO) **** FOR TECHNICAL PUBS ****
Depot Adjutant (DCP) **** NON-TECHNICAL PUBS ****
Via: (if applicable)
Subj: PUBLICATIONS UPDATE
Ref: (a) MCO P4790.2B
(b) DepO P4790.1C

1. Per the references, the following information is provided to update the AC/S, G-4 PL.

a. Request the following **additions** to the PL:

Publication: SL-1-2/1-3 PCN: 12000000300
MCCBul 5215 10207567700

b. Request the following **deletions** to the PL:

Publication: MCBul 3000 PCN: 10202973700
Msg AD Dir 50100379100

c. Request the following **changes** to the PL:

Publication: MCBul 3000
Action: Change PCN from 10202973300 to 10202973900

2. Further request that the following publications be **placed on order**. These publications are listed on our PL, but we do not have them in the shop.

<u>Publication</u>	<u>PCN</u>	<u>Quantity</u>
MCO 4400.150	10205247401 (Chg #1 only)	1
MCO P3000.11B	10203045102 (Chg #2 only)	1
SECNAVINST 5210.11D	21600280000	2

3. Point of contact is:

Signature

2. Noted errors in all maintenance related publications and/or recommended changes to publications content or format may be submitted. The Depot MMO will serve as the central control point for the submission of NAVMC 10772 forms.

a. Individuals will submit the form to the MMO, who will assign a local control number consisting of the unit RUC (34001), the last two digits of the calendar year, and a consecutive serial number.

b. The MMO will maintain a logbook of NAVMC 10772s that have been submitted by the sections, citing the local control number, Albany's control number, the section which submitted the form, the date the form was submitted, the subject, and the closing action.

c. The MMO will forward all completed forms to:

Commander (Code 850)
Marine Code Logistics Bases
814 Radford Boulevard
Albany, Georgia 31704-1128

d. When responses are received from MCLB, Albany, they will be forwarded to the appropriate section.

MMSOP

SAMPLE PUBLICATION REQUISITION RECEIPT FROM MCPDS

GPUBPF60
13:34:39

PUBLICATIONS SYSTEM
REVIEW (TRACK/CHANGE) TODAY'S PCNS ORDERED

SI= GPUBMF60
17/01/95

IAC: 7315002

PCN	QTY	
10500507100	2	T/E 7200

G-4 (MMO/SUPPLY)

DIRECTIONS: SCROLL FWD/BWD OR RETURN
PFK1-HELP PFK2-MAIN MENU PFK4-FWD PFK5-BWD
B MY JOB PRINT 65 NUM LU #9

MMSOP

CHAPTER 8

MAINTENANCE RELATED PROGRAMS

	<u>PARAGRAPH</u>	<u>PAGE</u>
GENERAL	8000	8-3
MAINTENANCE RELATED PROGRAMS	8001	8-3
PRODUCT QUALITY DEFICIENCY REPORT (PQDR)	8002	8-3
DETERMINATION OF ECONOMICAL REPAIR	8003	8-3
QUALITY CONTROL AND QUALITY ASSURANCE	8004	8-4
ENGINEER EQUIPMENT REPAIR CRITERIA	8005	8-4
RECOVERABLE ITEMS PROGRAM (RIP)	8006	8-4
REPLACE AND EVACUATION (R&E) PROGRAM	8007	8-4
GARRISON MOBILE (ENGINEER) EQUIPMENT PROGRAM	8008	8-5
GARRISON MOBILE (MATERIAL HANDLING) EQUIPMENT PROGRAM	8009	8-5

MMSOP

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 posture.
2. This chapter contains a summary of each of the programs which affect the majority of MCRD sections/organizations and provides the necessary reference(s) where more detailed explanation may be found. Provisions of the implementing directive will be strictly adhered to.

8001. MAINTENANCE RELATED PROGRAMS

1. Modification Control Program. The modification of Depot equipment and the elements responsible for input are discussed in Chapter 2.
2. Calibration Control Program. The Marine Corps Calibration Control Program and procedures to be followed by Depot maintenance activities are set forth in Chapter 2.

8002. PRODUCT QUALITY DEFICIENCY REPORT (PQDR)

1. MCO 4855.10 establishes the criteria and provides instructions for the PQDR submission.
2. The responsibilities of the Depot MMO are as follows:
 - a. Report any deficient PQDR (equipment related) responses to the Commanding General (Code 840), MCLB, Albany, GA 31704 for corrective action. If the subsequent corrective action is still deficient, report it to the Commandant of the Marine Corps (Code LPP), Headquarters, U.S. Marine Corps, 2 Navy Annex, Washington, D.C. 20380.
 - b. Maintain a status log on all PQDR's submitted through final action, noting final action taken.

8003. DETERMINATION OF ECONOMICAL REPAIR. 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 expenditures for repair of equipment which should be washed out of the system as uneconomical to repair.

8004. QUALITY CONTROL AND QUALITY ASSURANCE. A quality control program will be established in all MCRD organizations performing equipment maintenance. 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.

8005. ENGINEER EQUIPMENT REPAIR CRITERIA. Proper maintenance of equipment records is essential to this program. Sections will ensure compliance with the record keeping requirements established TM 4700-15/1.

8006. RECOVERABLE ITEMS PROGRAM (RIP)

1. The purpose of the RIP is to ensure recovery and evacuation or disposal of principal repairable items which are excess to a section's/activity's requirements, require repair that is beyond the capability of the section's/activity's, or are not economically repairable when the condition of the equipment and the asset position of the Marine Corps are considered. The program is outlined in detail in 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 section. The Property Control Office (PCO), Service and Supply Division, is tasked with consolidation and submission of Recoverable Items Reports.

8007. REPLACE AND EVACUATION (R&E) PROGRAM

1. The 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 the using sections/activities. The program is explained in Chapter 6 of MCO P4400.82, Controlled Item Management Manual.

2. Nomination of equipment assigned to MCRD sections/activities will be coordinated by the Depot MMO.

8008. GARRISON MOBILE (ENGINEER) EQUIPMENT PROGRAM

1. The Garrison Mobile (Engineer) Equipment Program is designed to achieve the optimum relationship between equipment investment cost and effective mission accomplishment. All items of garrison mobile (engineer) equipment assigned to Marine Corps posts and stations costing \$1,000,000 or more, which are used in equipment repair facilities or in the construction, alteration, maintenance or repair of building, bridges, roads, and other real property are included in this program.

2. MCO P11240.106 established the program and provides policy and procedures for its management. This Manual provides guidance on inventory management procedures, maintenance management procedures, repair/replacement criteria, identification markings, and identification listing. The life expectancy established in this Manual is a prime factor in the computation of maximum one-time expenditure limits.

3. The reporting requirements are outlined in MCO P11240.106.

8009. GARRISON MOBILE (MATERIAL HANDLING) EQUIPMENT PROGRAM

1. The Garrison Mobile (Materials Handling) Equipment Program, established by MCO P11240.106, is designed to preclude the unnecessary expenditure of funds on uneconomically repairable equipment and to ensure uniform procedures are used in the operation of materials handling equipment. This Manual provides the criteria to be used in determining the economical repairability of materials handling equipment. Information on operations, records, painting, and identification marking is also included.

2. MCO 11240.106 established procedures for the scheduling and performance of maintenance services on administrative use vehicles which includes materials handling equipment.

MMSOP

APPENDIX A

MAINTENANCE MANAGEMENT PESV CHECKLIST

1. The questions listed herein with the appropriate references are intended to serve a dual purpose.

a. Provide your section/organization with a set of guidelines that may be used in the day-to-day operations of your maintenance section.

b. Provide the inspector the means of conducting a thorough and systematic review of current procedures and operations.

2. This checklist will furnish your section/organization with a complete summary of your maintenance section along with appropriate recommendations and suggestions that may be deemed necessary to improve the efficiency of your maintenance operations.

THIS PAGE INTENTIONALLY LEFT BLANK

MMSOP

TABLE OF CONTENTS

MAINTENANCE MANAGEMENT PESV CHECKLIST

SECTION	TITLE	PAGE
M1	MAINTENANCE ADMINISTRATION.....	A-4
M2	TRAINING.....	A-5
M3	MIMMS REPORTING.....	A-6
M4	SUPPLY SUPPORT.....	A-8
M5	PUBLICATIONS AND DIRECTIVES.....	A-10
M6	PREVENTIVE MAINTENANCE.....	A-11
M7	CORRECTIVE MAINTENANCE.....	A-12
M8	EQUIPMENT RECORDS.....	A-13
M9	MODIFICATION CONTROL.....	A-14
M10	INVENTORY CONTROL.....	A-15
M11	CALIBRATION CONTROL.....	A-17
M12	SAFETY.....	A-19

THIS PAGE INTENTIONALLY LEFT BLANK

MMSOP

MAINTENANCE ADMINISTRATION

M1-1: What are the authorized echelons of maintenance:

M1-2: Has authority been delegated to perform maintenance of a higher echelon than authorized by the Table of Organization (T/O)?

Yes ___ No ___ N/A ___

M1-3: Have discrepancies addressed in the last PESV dated _____ been corrected?

Yes ___ No ___ N/A ___

M1-4: Is the MMSOP readily available to maintenance personnel and are they familiar with its contents? (Paragraph 2b Appendix A MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M1-5: Are Product Quality Deficiency Reports (PQDRs) being submitted and the appropriate files maintained? (MCO 4855.10B enclosure (6) and paragraph 2-13 of TM-4700-15/1G apply.)

Yes ___ No ___ N/A ___

M1-6: Have desktop procedures/turnover files been prepared for each maintenance related billet involving clerical or administrative functions? (Paragraph 1005 of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

MMSOP

TRAINING

Each command/section/commodity is responsible for planning its training program. A training plan is used to forecast upcoming training requirements and should identify specific programs and establish minimum training requirements (i.e., categories of training, number of hours to be conducted, etc.).

M2-1: Does a review of the documented maintenance training indicate an effective training program? (Paragraph 2003.2b and 2003.2d of MCO P4790.2B apply.)

Yes ___ No ___

M2-2: Has the unit included maintenance and maintenance management training in the units training plan? (Paragraph 2003 MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M2-3: Are maintenance supervisor training classes scheduled and conducted? (Paragraph 2003.2b of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M2-4: Is training being scheduled and accomplished for personnel authorized to sign maintenance related documents? (MCO 4400.16G Enclosure (1) paragraph 7.b applies.)

Yes ___ No ___ N/A ___

M2-5: Are current Individual Training Standards (ITS) for Military Occupational Specialties (MOS) maintained and has training been established in accordance with those standards? (MCO 1510.34A and the applicable ITS orders apply.)

Yes ___ No ___ N/A ___

M2-6: Are Desktop Procedures prepared and current?

Yes ___ No ___

MMSOP

MIMMS REPORTING

The MIMMS was developed to improve and standardize equipment status reporting and management while reducing and consolidating manual reporting requirements. The failure to accurately record MIMMS data could prevent the efficient management of available resources.

M3-1: Do commodity personnel use an Equipment Repair Order (ERO)/Shop Repair Order (SRO) or Work Request in all instances where either repair parts or resources are required? (MCO P4790.2B paragraph 4004 and TM-4700-15/1G paragraph 2-2 apply.)

Yes ___ No ___ N/A ___

M3-2: Are Job Status Codes, Category Codes, and Defect Codes properly assigned and do they accurately reflect the current status of the equipment? (Paragraph 2-2 of TM-4700-15/1G and Chapter 24 of UM-4790-5 apply.)

Yes ___ No ___

M3-3: Are Deadline Control Dates (DCDs) assigned to Category "P" EROs (when deadlined) and all Category "M" EROs? (Paragraph 2-2d(9) TM-4700-15/1G applies.)

Yes ___ No ___ N/A ___

M3-4: Do EROs reflect correct equipment serial numbers as identified by the units supply accounting records? (Paragraph 2-2d(11) of TM-4700-15/1G and paragraphs 2.6 and 2.14 chapter 2 of UM-4400-124 apply.)

Yes ___ No ___ N/A ___

M3-5: Are procedures established which require coordination with the DSSC on difficult to obtain repair parts prior to washout or requesting disposition instructions for unsatisfactory supply support? (Paragraph 3003.5b(2) of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

MMSOP

M3-6: Do commodity personnel understand the procedures for obtaining supporting maintenance services? (MCO P4790.2B paragraphs 1000.2, 3008 and Appendix A apply.)

Yes ___ No ___ N/A ___

M3-7: Are LTIs conducted on GME requiring extensive repairs to determine if equipment is economically repairable? (MCO P11240.106A paragraph 8003.1 applies.)

Yes ___ No ___ N/A ___

M3-8: Are waiver/disposal instructions requested for GME items that exceed the one time repair limit? (MCO P11240.106A paragraph 8003.2 applies.)

Yes ___ No ___ N/A ___

M3-9: Are Shop Repair Orders (SROs) commercial contractors work request properly prepared and is all essential information annotated? (TM-4700-15/1G paragraph 9-2b(5) and 9-2d) (GME) apply.)

Yes ___ No ___ N/A ___

M3-10: Are maintenance shops that possess multiple echelons of maintenance utilizing proper procedures to evacuate equipment. (Paragraph 2-2.f(1) of TM-4700-15/1G applies.)

Yes ___ No ___ N/A ___

M3-11: Are Desktop Procedures prepared and current?

Yes ___ No ___

MMSOP

SUPPLY SUPPORT

It is the commander's responsibility to ensure that repair parts and maintenance related supplies are requisitioned, accounted for, and safeguarded. The failure to properly order, receipt for, and store repair parts and supplies could lead to waste, fraud or abuse.

M4-1: Do the Repair Parts Requisitions (EROSL, DD 1348, or DD 1149) document all parts transactions for the equipment undergoing repair? (Paragraph 2-3a of TM-4700-15/1G, paragraph 2004.4 of MCO P4790.2B, Part 3 paragraph 5.1.3 of UM-4400-124, and paragraph 22001 of UM-4400-15 apply.)

Yes ___ No ___ N/A ___

M4-2: Are parts requisitions properly annotated when parts are received and issued? (Paragraph 2-3e(2)a-c of the TM-4700-15/1G and paragraph 2004.4 of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M4-3: Is a biweekly reconciliation of the ERO, EROSL, and layettes properly conducted? (Paragraph 2004.3 and Appendix C of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M4-4: Can repair parts or assemblies held in maintenance facilities be identified with pending EROs/SROs/Work Requests? (Paragraph 2004.5 and Appendix C of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M4-5: Are Pre-Expended Bin (PEB) items properly approved, and do they meet the stockage criteria? (Paragraph 2004.7 of MCO P4790.2B and Paragraph 5021 of MCO P4400.150D apply.)

Yes ___ No ___ N/A ___

MMSOP

M4-6: Are proper reconciliations being conducted between the commodities and supply? (Part 3 paragraph 5.1.3 of UM-4400-124 and Appendix C of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M4-7: Are parts requisitions prepared and forwarded in a timely manner? (Paragraph 2004.1 of MCO 4790.2B and Enclosure 1 of MCO 4400.16G apply.)

Yes ___ No ___ N/A ___

M4-8: Do personnel involved in ordering repair parts understand the use of supply status codes? (UM 4400-15 Appendix L and UM-4400-124 page 4-4-147 applies.)

Yes ___ No ___ N/A ___

M4-9: Are parts requisitions assigned priorities commensurate with the ERO? (MCO P4790.2B paragraph 2004 and Appendix G of MCO 4400.16G apply.)

Yes ___ No ___ N/A ___

M4-10: Are Insurance Items held by the commodity; and if so, are they properly approved? (UM 4400-15 paragraph 03012.2D applies.)

Yes ___ No ___ N/A ___

M4-11: Are shop supply procedures covered in Desktop Procedures?

Yes ___ No ___ N/A ___

MMSOP

PUBLICATIONS AND DIRECTIVES

Commanders must ensure that authorized publications and directives are on hand, internal distribution is efficient, that they are maintained up to date, that missing pubs and directives are requisitioned in a timely manner, and that prompt action is taken to adjust inventories as requirements change. Insufficient reference material will impede the maintenance effort.

M5-1: Are personnel familiar with NAVMC Form 10772 and its purpose? (Paragraph 6002 of MCO P5215.17B, paragraph 2008 of MCO P4790.2B and paragraph 2-23a of TM-4700-15/1G apply.)

Yes ___ No ___ N/A ___

M5-2: Does the maintenance shop have current copies of publications needed to perform the assigned mission? (Paragraph 1002 of MCO P5215.17B and the current SL-1-2/SL-1-3 apply.)

Yes ___ No ___ N/A ___

M5-3: Has a method been established for the identification, filing and maintenance of publications? (Appendix B of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M5-4: Are required publications properly procured? (Paragraph 3302 of MCO P5600.31G apply.)

Yes ___ No ___ N/A ___

M5-5: Does the commodity have a current Publication Listing (PL) from the Depot Adjutant on hand?

Yes ___ No ___ N/A ___

M5-6: Are Desktop Procedures prepared and current for publication maintenance procedures?

Yes ___ No ___ N/A ___

MMSOP

PREVENTIVE MAINTENANCE

Preventive Maintenance (PM) is the care and servicing performed for the purpose of maintaining equipment in a satisfactory operating condition.

M6-1: Are data elements of the PM roster (NAVMC 10561) properly completed? (Paragraph 2-4 of TM-4700-15/1G applies.)

Yes ___ No ___ N/A ___

M6-2: Are preventive maintenance (PM) services scheduled, evenly distributed, and performed in accordance with applicable publications? (Paragraph 3002 of MCO P4790.2B and TM-4700-15/1G Paragraph 2-4.b apply.)

Yes ___ No ___ N/A ___

M6-3: Are warranty provisions for Garrison Mobile Equipment (GME) employed to the fullest extent possible? (MCO P11240.106A paragraph 7005 applies.)

Yes ___ No ___ N/A ___

M6-4: Are preventive maintenance services scheduled and performed on a semiannual and annual basis for GME. (Paragraph 9-3b(1)(a) of TM-4700-15/1G applies.)

Yes ___ No ___ N/A ___

M6-5: Are safety inspections conducted at intervals not to exceed 12 months and recorded on a SRO for GME? (MCO P11240.106A paragraph 7001.2 applies.)

Yes ___ No ___ N/A ___

MMSOP

CORRECTIVE MAINTENANCE

The owning unit is responsible for the performance of all Corrective Maintenance (CM) within its authorized echelon of maintenance. The failure to identify, record and correct CM requirements will not only detract from the efficient use of maintenance resources, but will reduce equipment availability.

M7-1: Does an examination of equipment indicate that CM requirements have been identified and that corrective action has been initiated? (Paragraph 3003 of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M7-2: Is CM maintenance performed in accordance with Technical Manuals (TMs) and within the echelon of maintenance authorized? (Paragraphs 1003, 3002 and 3003 of MCO P4790.2B, and the Unit T/O apply.)

Yes ___ No ___ N/A ___

M7-3: During the Acceptance Inspection, are items and records properly inspected? (Paragraph 3001 of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M7-4: Are procedures provided for adequate Quality Control/ Supervisory Inspections during the active maintenance phase? (Paragraph 3001.3.e of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M7-5: Do the equipment records indicate timely unit action in resolving CM requirements? (Paragraph 1003, 3002, and 3003 of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M7-6: Is the criteria for determining the eligibility of economical repair being complied with? (Paragraph 3001.3c(2)(a) of MCO P4790.2B and MCO P4710.8G apply.)

Yes ___ No ___ N/A ___

MMSOP

EQUIPMENT RECORDS

Equipment records must be properly maintained. Essentially used as resource documents, they provide the basis for past evaluation and the planning and conduct of future maintenance efforts. The failure to properly maintain equipment records may result in the loss of necessary historical data.

M8-1: Are equipment records properly maintained? (Chapter 1 of TM-4700-15/1G applies.)

Yes ___ No ___ N/A ___

M8-2: Are Operator's Daily Checklists for cranes, wreckers and forklifts utilized and maintained with the trip ticket? (Paragraph 1001.2 of MCO P11262.2A applies.)

Yes ___ No ___ N/A ___

M8-3: Are copies of SF 91s properly maintained? (TM-4700-15/1G, Paragraph 2-17b-f applies.)

Yes ___ No ___ N/A ___

M8-4: Is Cognizance Symbol "20" (COG "20") training equipment reported to the Naval Training Equipment Center [NAVTRAEQUIPCEN, (Code N-44)] when projection/sound equipment requires repair beyond the capability of the custodial activity? (MCO P5290.1 paragraph 7006.7 applies.)

Yes ___ No ___ N/A ___

M8-5: Is an annual load test/safety inspection of hoists accomplished and are required certifications on hand? (MCO P11262.2A paragraph 2005 applies.)

Yes ___ No ___ N/A ___

M8-6: Have all individuals dispatching equipment been designated in writing by the Equipment Officer? (TM-4700-15/1G paragraph 2-15c applies.)

Yes ___ No ___ N/A ___

MMSOP

MODIFICATION CONTROL

The commander is responsible for ensuring that all modifications have been completed and are recorded. To accomplish this, units must establish a modification control program. Required equipment modifications are published in MIs and listed in the Marine Corps SL-1-2/1-3.

M9-1: Has the commodity established a Modification program? (MCO P4790.2B paragraphs 1004.3e(6) and 3004 applies.)

Yes ___ No ___ N/A ___

M9-2: Has a Commodity Manager Modification Control Record (NAVMC 11053/11054) been established when required? (Paragraph 3004 of MCO P4790.2B and TM-4700-15/1G Paragraph 2-5.c apply.)

Yes ___ No ___ N/A ___

M9-3: Are Commodity Manager Modification Control Records (NAVMC 11053/11054) maintained correctly? (TM 4700-15/1G Paragraph 2-5.c apply.)

Yes ___ No ___ N/A ___

M9-4: Are Desktop Procedures prepared and current for modifications?

Yes ___ No ___ N/A ___

MMSOP

INVENTORY CONTROL

Tools are essential to the maintenance efforts. All tools, sets, kits, chests and SL-3 components to end items must be identified and located, then accounted for and maintained properly. Tools are a vital element of the maintenance effort and the failure to control those assets may result in their non-availability, therefore impeding the maintenance effort.

M10-1: Are all special tools, sets, kits, chests, and SL-3 components to end items to include sub-kits inventoried as required? (Paragraph 2005 and Appendix D of MCO P4790.2B, and paragraph 2008.6 of MCO P4400.150D apply.)

Yes ___ No ___ N/A ___

M10-2: Are records of inventories maintained on hand for one year? (Appendix D of MCO P4790.2B and TM-4700-15/1G paragraph 2-6e apply.)

Yes ___ No ___ N/A ___

M10-3: Are current SL-3s or extracts from technical publications (technical manuals (TM), service manuals, commercial publications, etc) maintained? (Appendix D of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M10-4: Are items contained in sets, kits, chest and SL-3/TM-10 end item components maintained in a clean and serviceable condition? (Paragraph 2005.4 of MCO P4790.2B and TM-10209-10/1 apply.)

Yes ___ No ___ N/A ___

M10-5: Are effective procedures established for the control of items issued from sets, kits, and chests (e.g., logbook, dog tags, etc.)? (MCO P4790.2B paragraph 2005.2 and Appendix D paragraph 3e apply.)

Yes ___ No ___ N/A ___

MMSOP

M10-6: Are special tool allowances established for garrison peculiar purposes only, and are these tools properly authorized and accounted for? (FMF Units only.) (MCO P4400.150D paragraph 2009 and MCO P4790.2B appendix D apply.)

Yes ___ No ___ N/A ___

M10-7: Are missing or unserviceable items requisitioned promptly and properly?

Yes ___ No ___ N/A ___

M10-8: Are Desktop Procedures maintained and current for the Tool Room NCO?

Yes ___ No ___ N/A ___

MMSOP

CALIBRATION CONTROL

All instruments used for the purpose of making diagnostic test or measurements must be included in the Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program.

M11-1: Is the unit complying with MCO 4733.1A for calibration of equipment? (Para 3005 of MCO P4790.2B & TI-4733-15/1C apply.)

Yes ___ No ___ N/A ___

M11-2: Is all TMDE included in the unit's TMDE Calibration and Maintenance Program (CAMP)? (Appendix D, MCO P4790.2B, TI 4733-15/1C paragraph 4c and TM-4700-15/1G paragraph 2-7c apply.)

Yes ___ No ___ N/A ___

M11-3: Is TMDE requiring calibration promptly submitted? (Paragraph 3005 and Appendix D of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M11-4: Is the unit complying with the requirements for the Infantry Weapons Gauge Calibration Exchange Program (IWGCEP)? (TI-4733-15/11C applies.)

Yes ___ No ___ N/A ___

M11-5: Is all required information for TMDE annotated on an authorized control system? (Paragraph 2-7 of TM-4700-15/1G and Appendix D of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

M11-6: Is the unit taking advantage of "Special Calibration"? (TI-4733-15/1C Para 3005 and Appendix D of MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

MMSOP

M11-7: Has an effective calibration schedule been implemented to enable the unit to maintain sufficient instruments on hand? (Paragraph 2-7g of TM-4700-15/1G, paragraph 3005 and Appendix D of MCO P4790.2B, and MCO 4733.1A apply.)

Yes ___ No ___ N/A ___

M11-8: Is TMDE designated as "Calibration Not Required" (CNR) or "INACTIVE" maintained in a clean/complete condition and is the status validation annotated? (TM-4700-15/1G paragraph 2-7d through f applies.)

Yes ___ No ___ N/A ___

M11-9: Does the unit conduct an annual inventory of all TMDE to ensure calibration records are accurate and complete? (TM-4700-15/1G paragraph 2-7.c applies.)

Yes ___ No ___ N/A ___

M11-10: Are Desktop Procedures for the Calibration Clerk resident and current?

Yes ___ No ___ N/A ___

MMSOP

SAFETY

Safety should be an utmost concern to all Marines during the performance of their duties. The failure to practice safety or report safety violations could become detrimental to the Marines health and well being.

M12-1: Are lighting, ventilation, electrical power outlets and cleanliness of maintenance areas adequate for efficiency and personnel safety? (Appendix E of MCO P4790.2B applies.)

Yes ___ No ___ N/A ___

M12-2: Does a review of maintenance areas and storerooms indicate that safety precautions and practices are in effect? (MCO P4790.2B paragraph 2003.7, MCO 5100.8E Paragraph 11.b)

Yes ___ No ___ N/A ___

M12-3: Do battery charging areas/shops meet the minimum safety standards? (Paragraph 1520 of NAVMAT P-5100 and OSHA 1910 apply.)

Yes ___ No ___ N/A ___

M12-4: Do all jack stands and axle stands have the rated load legibly and permanently affixed? (Table 1-1, MCO 11262.2 and paragraph 3005.4, MCO P4790.2B apply.)

Yes ___ No ___ N/A ___

THIS PAGE INTENTIONALLY LEFT BLANK

MMSOP

APPENDIX B

MAINTENANCE REFERENCES

Marine Corps publications are essential to a unit's Maintenance Management program. The list is provided with the hope that it will assist sections/organizations in rapidly identifying source reference material.

Short Title	Long Title	PCN
NAVMC 2761	Catalog of Publications	10001345000
MCO 1510.34_	ITS System	10201651700
McBul 3000_	Table of MARES Log Rpt SORTS	10202973500
MCO P3000.11_	MARES Intro Pol Man	10203045100
MCO 4400.16_	UMMIPS	10204730000
MCO P4400.82_	MUMMS Cntl Item Mgt	10205020000
MCO P4400.150_	Consumer Level Sup Man	10205247400
MCO 4710.8_	Unif Criteria Cost Est	10206510000
MCO 4733.1_	Marine Corps TMDE CAMP	10206528000
MCO P4790.1_	MIMMS Intro Man	10206545000
MCO P4790.2_	MIMMS Field Procedures Manual	10206545100
MCO 4855.10_	Product Quality Def Rpting	10206610700
MCO P5090.2_	Environment & Prot Man	10207187100
MCO 5100.8_	USMC Grnd OSH Prog	10207190000
MCO P5215.17_	USMC Tech Pub Sys	10207590200
MCO P5290.1_	USMC TAVSC Man	10207721700
MCO P5600.31_	MC Pub & Printing Regs	10208650000
MCO P11240.106_	Garrison Mobile Equip	10211764600
MCO 11262.2_	Insp Test & Cert Tac Gnd Eq	10211800000
TI-4733-15/1_	TMDE Cal & Maint Prgm	16738355000
TI-4733-15/10_	Spec Cal of Torque Wrenches	16738356000
TI-4733-15/11_	Cal Req for IWG	16738357200
TM-10209-10/1_	Care & Hndling Tools	18000292000
TM-4700-15/1_	Equip Record Procedures	18204600000
UM 4400-124_	SASSY Users Manual	18844012800

