

UNITED STATES MARINE CORPS
Utilities Instruction Company
Marine Corps Engineer School
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U-08E01
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STUDENT HANDOUT

MAINTENANCE MANAGEMENT

1. LEARNING OBJECTIVES

a. TERMINAL LEARNING OBJECTIVES

(1) Provided a Consolidated Engineer Equipment Operation Log and service Record (NAVMAC 10524), TM-4700-15/1, operation data, and technical manual for a specific piece of equipment complete the NAVMC 10524, in accordance with TM -4700-15/1. (1141.07.01)(1142.02.01)

(2) Provided an Equipment Repair Order (NAVMC10245), TM-4700-15/1, UM-4790-5, maintenance actions, the man-hours it took to complete the maintenance actions, and technical manual for specified equipment, complete the mechanic's section of the NAVMC 10245, in accordance with TM-4700-15/1. (1141.07.02)(1142.02.02)

(3) Provided an ERO Shopping/Transaction List (NAVMC 10925) and the necessary data to order a specific item, with the aid of references, fill out all the required data on the NAVMC 10925 to order the item, in accordance with TM-4700-15/1 and UM-4790-5. (1141.07.03)(1142.02.03).

(4) Provided A Worksheet for Quarterly Preventive Maintenance and Limited Technical Inspection for Engineer Equipment (NAVMC 10560), TM-4700-15/1, appropriate equipment technical manuals, and a list of maintenance actions performed, complete the mechanic's portion of the NAVMC 10560 in accordance with TM4700-15/1. (1141.07.04)(1142.02.04).

b. ENABLING LEARNING OBJECTIVES

(1) Provided a selection of categories of maintenance and definitions, without the aid of reference, identify each category of maintenance with it's definition, to include the Contact Team, in accordance with TM 4700-15/1_ (1141.07.02a)(1142.02.02d)

(2) Provided a selection of purposes, without the aid of reference, select the correct purpose for the Technical Manual, in accordance with TM 4700-15/1_ (1141.07.02b)(1142.02.02i).

(3) Provided a selection of chapters from the TM 00038G, without the aid of reference, identify the contents contained in each chapter. The contents must be correctly identified as they appear in the Technical Manual. (1141.07.02c)(1142.02.02f)

(4) Provided a selection of SL-3 components, list the National Stock Number for each component, in accordance with SL-3-00038G/07499A. (1141.07.03a)(1142.02.03a)

(5) Provided a selection of purposes, identify the correct purpose for the SL-4, in accordance with SL-4-00038G/ 07499A. (1141.07.03b)(1142.02.03b)

(6) Provided a selection of SL-4 components, list the National Stock Number for each component, in accordance with the appropriate technical manual. (1141.07.03c)(1142.02.03f).

(7) Provided Source Maintenance Recoverability Codes, without the aid of reference, identify the correct character breakdown, in accordance with TM-00038G. (1141.07.03d)(1142.02.03c)

(8) Provided a list of purposes, without the aid of reference, identify the correct purpose for the Worksheet for Quarterly Preventive Maintenance and Technical Inspection for Engineer Equipment (NAVMC 10560), in accordance with TM 4700-15/1_. (1141.07.04a)(1142.02.04a)

(9) Provided a Worksheet for Quarterly Preventive Maintenance and Technical Inspection for Engineer Equipment, pertinent data and a list of defects, complete section A, section B and annotate discrepancies on the Worksheet for Quarterly Preventive Maintenance and Technical Inspection for the Engineer Equipment, in accordance with the Equipment's Technical Manual and TM 4700-15/1. (1141.07.04b)(1142.02.04b)

(10) Provided a selection of purposes, without the aid of reference, select the correct purpose for the Equipment Repair Order (ERO) (NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02e)(1142.02.02a)

(11) Provided a selection of Technical Manuals, without the aid of reference, identify the correct Technical Manual that outlines the procedures for completing the Equipment Repair Order (ERO) (NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02f)(1142.02.02k)

(12) Provided a selection of choices, without the aid of reference, identify the correct use of a first echelon Equipment Repair Order (NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02g)(1142.02.02j)

(13) Provided a selection of choices, without the aid of reference, identify who is responsible for the initial preparation of

the Equipment Repair Order (NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02h)(1142.02.02b)

(14) Provided a selection of definitions, without the aid of reference, identify the correct purpose for each copy of the Equipment Repair Order (ERO NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02i)(1142.02.02c)

(15) Provided a scenario and a Equipment Repair Order (ERO NAVMC 10245), with the aid of reference complete the Equipment Repair Order (ERO NAVMC 10245), in accordance with TM 4700-15/1_. (1141.07.02j)(1142.02.02h)

(16) Provided a selection of purposes, without the aid of reference, identify the correct purpose for the Equipment Repair Order Stockage List (EROSL) (NAVMC 10925), in accordance with TM 4700-15/1_. (1141.07.03e)(1142.02.03g)

(17) Provided a selection of Material Usage Codes and definitions, without the aid of reference, match the material usage code with it's correct definition, in accordance with TM 4700-15/1_. (1141.07.03f)(1142.02.03d)

(18) Provided a selection of card column numbers and definitions, without the aid of reference, identify the correct card column number with it's definition in accordance with TM 4700-15/1_. (1141.07.03g)(1142.02.03h)

(19) Provided a scenario and an Equipment Repair Order Stockage List (EROSL) (NAVMC 10925), with the aid of reference, complete the Equipment Repair Order Stockage List (EROSL), (NAVMC 10925), in accordance with TM 4700-15/1_. (1141.07.03h)(1142.02.03e)

(20) Provided a selection of purposes, without the aid of reference, select the correct purpose for the Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524), in accordance with TM 4700-15/1_. (1141.07.01a)(1142.02.01a)

(21) Provided a selection, without the aid of reference, identify who is responsible for completing section B of the Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524) while at the project site, in accordance with TM 4700-15/1_ and UM 4790-5. (1141.07.01b)(1142.02.01b)

(22) Provided a scenario and a Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524), with the aid of reference, complete section A of the Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524), in accordance with TM 4700-15/1_. (1141.07.01c)(1142.02.01c)

(23) Provided a scenario and a Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524), with the aid of reference, complete section B of the Consolidated Engineer Equipment Operation Log and Service Record (NAVMC 10524), in accordance with TM 4700-15/1_. (1141.07.01d)(1142.02.01d)

BODY**1. RESPONSIBILITIES**

a. As new engineers, you will find regardless of what role you fill (mechanic, operator, etc.), there are certain things you are required to know and perform as part of your daily work.

b. These responsibilities vary with the job title you are filling and your rank. As your job progresses within the field, you will be given increased responsibility as you learn and gain seniority. Consider these following items as a bottom line for all concerned.

(1) You must know how to use technical publications of different types. If you need specifications, you should know where and how to find them. If you need to order parts, you must also know where to find them and the information required to order parts. There will be times you will have to inventory your tool kit and equipment, so you will also have to know where to find the publication used for inventory. Later in this lesson I will cover each type of publication I have mentioned so you will know how to do this part of your job.

(2) Once you have completed a repair job, operational commitment, or some other related action, you must know how to document this information. This involves filling out work orders, parts requests, equipment operational records, inspection and preventive maintenance checklists. You will be given information on all these types of forms and the proper use and completion, but it will be your responsibility to select and complete records and forms for any particular circumstance.

(3) Safety is always a prime concern when working on and around equipment. It is everyone's responsibility. An area closely associated with safety is improper use or operation of equipment or abuse. Abuse by itself is everyone's responsibility, at least the reporting of it. Abuse can come in many forms such as: improper operation, lack of preventive maintenance, improper starting procedures, etc.

2. CATEGORIES AND ECHELONS OF MAINTENANCE

a. The Marine Corps Maintenance System is broken down into three distinct categories of maintenance. These three categories have different missions. In other words, they do not do the same type of work in each.

b. The Marine Corps Maintenance System is categorized by the Department of Defense into three main areas.

- (1) Organizational Maintenance
- (2) Intermediate Maintenance
- (3) Depot Maintenance

c. Within each particular category, there are one or more echelons of maintenance. Each echelon has a particular purpose and definition that I will cover at a later time.

d. Now you can see that the categories we just referred to are subdivided into echelons. Organizational maintenance consists of 1st and 2nd echelons of maintenance, intermediate maintenance consists of

3rd and 4th, echelons of maintenance and depot maintenance consists only of 5th echelon maintenance.

5. For all practical purposes, you can say that the system consists of three categories and five echelons of maintenance.

3. Maintenance Definitions

a. Organizational Maintenance: This type maintenance is the responsibility of and performed by the using unit on its assigned equipment.

(1) First Echelon: This maintenance is performed by the user, wearer, or operator of the equipment. It includes the proper care, use, operation, cleaning, preservation, lubrication, minor adjustment, and parts replacement as prescribed by pertinent publications and tools allowed.

(2) Second Echelon: This type of maintenance is performed by specially trained personnel (Mechanics) in the organization. Appropriate publications authorize second echelon maintenance, additional tools and necessary parts, supplies, etc. Tools are generally restricted to hand tools that are commonly found in a mechanic's tool box. Most of the work consists of preventive maintenance services, adjustments, tightening, equipment inspections, and replacement of easily accessible components and assemblies

b. Intermediate Maintenance: This is maintenance provided by designated activities in direct support of using organizations.

(1) Third Echelon: This maintenance is performed by special units in support of one or more using organizations. It consists of diagnosis and fault isolation, repair of equipment using piece parts, assemblies, and components, performing light body repairs, and utilizing contact teams to perform or assist in performing on-site diagnosis/repair. Third echelon is authorized a greater selection of tools than 2nd echelon plus test and diagnostic equipment to accomplish their maintenance mission.

(2) Fourth Echelon: Fourth is performed by units organized as semi-fixed or permanent shops to serve lower echelons within a geographical area. They are the highest maintenance units available in the field, and are well equipped. Their job consists of component/assembly rebuild and repair, diagnosis and isolation of internal piece parts plus their repair, heavy body and frame repair, and jobs that include grinding, pressing, welding, and machining. Fourth echelon does have both welding shop and machine shop capabilities and the personnel assigned are trained to perform these functions.

c. Depot Maintenance: This is maintenance performed by Albany, GA, and Barstow, CA, and in support of all units regarding fifth echelon. Fifth echelon is performed by what is commonly called rebuild centers. Fifth echelon is basically rebuild/overhaul of end items. They also rebuild components, perform repairs beyond the capability of the FMF, manufacture items and parts not provided by or stocked in the supply system, provide technical assistance to the field and provide stocks of serviceable equipment.

d. Contact Team Maintenance

(1) When it is impractical to deliver equipment to a central shop for maintenance or the equipment type is concentrated in a particular location, it is often economical to divide the total maintenance capability and locate a contact team on site. The establishment and operation of this team may be for a limited or extended period of time and is an extension of the central shop operations.

(2) A contact team is a temporary organization consisting of one or more mechanics/technicians (with tools and equipment/repair parts) formed to accomplish its specific task and dissolved upon completion thereof. A contact team is normally tailored to a commodity or weapon system. It performs on-site maintenance or provides technical assistance.

(3) Utilization of contact team normally should be restricted to periods of short duration and for specific maintenance requirements. The team should consist of the minimum number of qualified personnel to expeditiously complete the job and be equipped with the minimum essential tools, test equipment, and necessary material for repair to perform the assigned maintenance. Maintenance resources available at the equipment site will be utilized to the extent practicable. Transportation must be coordinated to keep travel time to a minimum.

4. TECHNICAL MANUALS

a. The purpose of a TM is to provide specifications, lubrication instructions, maintenance instructions, and other related maintenance actions.

b. Technical Manual

(1) The front cover shows the type of publication, equipment nomenclature, model designation, NSN, date of publication, and short title.

(2) The short title in the upper right hand corner of the cover indicates some necessary information about the equipment and the publication itself. The short title TM-00038G-12 indicates the following information.

(a) TM - Indicates this a technical manual, not a STOCK LIST or Marine Corps Order, etc.

(b) 00038 - This five digit number is what is referred to as an Item Designator Number. ID's will always be five digits and are assigned to equipment upon its introduction into the Marine Corps inventory.

(c) G - This letter, the last part of the ID number, indicates the model of equipment covered by this publication. Lack of a model designator means more than one model is covered by the publication and they will be listed on the front cover.

(d) 12 - This number indicates the echelon(s) of maintenance covered within the publication. This particular one covers 1st and 2nd echelons of maintenance. Not always will it be a 12, however. You can have any combination of numbers such as: -24 = 2nd-4th; -35 = 3rd-5th; -10 = 1st only; -20 = 2nd only; -40 = 4th only, etc.

(3) The short title will appear on all Marine Corps publications, not just TMs. It is very important that you know what it means and can often save time in using publications.

a. Table of Contents - This gives a listing of the information contained in the manual cross referenced to chapter and page number.

b. List of Illustrations - Lists all illustrations cross-referenced to chapter and page or illustration number.

c. Safety Summary - This is a listing of all the safety warnings that are used in the manual, compiled, and listed in the front of the manual.

d. List of Tables - This section lists tables such as table of troubleshooting, preventive maintenance, etc. Tables are cross-referenced to chapter and page number.

5. Contents of the Technical Manual.

a. Chapter 1 This chapter contains general description of the item - This section does just as the name implies, gives weights, measurements, etc., for the item.

b. Chapter 2

(1) This chapter contains operating instructions - This section tells the user how to prepare for use, start, run, and utilize all controls and functions associated with equipment operation.

(2) Lubrication Instructions - Here we find a schematic of the item with arrows pointing to lube points. This section also establishes the interval and the proper lubricants used for lubrication.

c. Chapter 3 - Depending on the echelon(s) covered within each technical manual one or more of the following will be found:

(1) This chapter contains organizational maintenance - This section shows those 1st and 2nd echelon maintenance services to be performed.

(2) Field Maintenance Section - This section of the manual is where the 3rd and 4th echelon maintenance instructions are covered.

(3) Overhaul Section - Here is where you find the rebuild and overhaul instructions for the equipment and its components/assemblies.

(4) Troubleshooting Table - Here you will find the malfunctions cross-referenced to the probable cause and remedies. As mechanics, this can be a valuable tool in the repair process.

d. Chapter 4 - This chapter covers the auxiliary material (if applicable) used in conjunction with the equipment. It is set up the same way as a technical manual, but in a condensed version.

e. Index: Like any index, it shows what is in a publication and the page, paragraph or figure number on which it is found. This is set up in alphabetical sequence and should be used to avoid unnecessary time thumbing through pages.

6. COMPONENTS LIST (SL-3)

a. Purpose: The SL-3 provides a listing of components/accessories needed to make an item complete. These components/accessories are not repair parts, but items like tools, fire extinguishers, hoses, pressure gauges, sirens, flashing lights, etc. The main purpose of the SL-3 is inventory control.

b. Contents:

(1) The front cover has all the same basic data as a TM. The short title is broken down as follows:

(a) SL-3 - Stock List3 (components list)

(b) 00848 - ID Number

(c) D - Model Designator. Lack of a model designator means more than one model is covered but they will be listed on the front cover.

(d) There are no numbers to indicate the echelon(s). All SL-3 components lists are first echelon parts lists.

(2) After the front cover, there is some technical data given for the item. This technical data does not duplicate a TM. It is usually restricted to weights, measurements, capacities, limitations and possibly manufacturers.

(3) After the technical data, is the actual list of components and certain bits of information about those components in the following columns of information:

(a) Item Number - Every item is numbered sequentially here.

(b) NSN - This is the national stock number for that particular item. Needed in requisitioning.

(c) Reference Designator/Figure Key - This column reflects a figure number and key if they are illustrated in the SL-3.

(d) Model - If the STOCK LIST covers more than one model, the model column could reflect a letter showing what model that item has application to.

(e) Item Identification - Nomenclature and possibly a description of the item.

(f) Unit of Measure - As it applies to that item of equipment. Not necessarily the correct one for requisitioning.

(g) Quantity Used in Unit - This is the number of those items needed to make the item complete.

7. REPAIR PARTS LIST (SL-4)

a. Purpose: The SL-4 is used to list and identify repair parts. It also provides the requisitioning data for those parts.

b. Content

(1) The short title is like that of the SL-3. The only difference is that an SL-4 is always a repairs part list and not a components list. As with the SL-3 the SL-4 short title does not have numbers to indicate the echelon(s) level(s). The SL-4 covers 2nd-5th echelon parts. This will be covered later under the SMR code.

(2) Before you actually get into the parts listing, you will find several appendixes in the front of the book.

(a) Federal Supply Codes for Manufacturers - This lists the name and address of those manufacturers who make parts/components for that item. As you see, the manufacturers are also assigned a number, called an MFR Code and will be needed in cross-referencing, as you will see later.

(b) Table of Contents - This serves as a quick reference for locating the five sections, the repair parts, group listings, or specific repair parts within the group.

(3) Part I - Preface/Introduction - This section provides you with an explanation to the purpose of the SL-4, summarizes each section and explains each column in the tabular lists, appearing in the SL-4.

(4) Part II - is an illustration and item identification listing. This illustration and item listing are used in conjunction with each other. They are in figure and item number sequence. There are several columns of information in Part II, these columns are explained in the preface/introduction.

(a) Illustration - Column 1 is divided as follows

1 Column 1a indicates the figure number of the illustration on which the item is shown.

2 Column 1b indicates the item number used to identify the item on the illustration.

(b) SMR Code - Column 2 contains the source, maintenance and recoverability code, broken down by military services. The SMR Code consists of five letters representing three parts of the code. They break down as follows.

1 Source - consists of the first two letters combined to indicate the manner of acquiring support item for maintenance, repair, or overhaul of end items.

2 Maintenance - consists of the third and fourth positions and indicates whether the item is to be repaired and identifies the lowest maintenance level to remove, replace and repair.

a Third position: indicate the lowest maintenance level authorized to remove, replace, and use the support item.

b Fourth position: indicates whether the item is to be repaired and identifies the lowest maintenance level with the capacity to complete repair.

3 Recoverability - is the fifth position and indicates disposition action on unserviceable items.

(c) Special Stockage Indicator and Replacement Factor
- Column Three is divided as follows:

(1) Column 3A Special Stockage Indicator - This column reflects the condition under which certain maintenance parts are stocked.

(2) Column 3b replacement factor - Reflects in decimal form the average rate an item is expected to need replacement.

(d) National Stock Number Column 4 - NSN is a 13-digit number used to requisition the part. If no NSN is listed you will need the part number and MFR Code to obtain the part or you may need to order the next higher assembly depending on the SMR Code.

(e) Description Column 5 - indicates the Federal item name and any additional description. It also contains Part Number and MFR Code in parentheses. If 2 are listed, the first listing refers to the DOD Drawing Number the second to the actual Part Number. Column 5 also contains the usable code, which indicates what model unit the part can be used on, if more than 1 model is covered in the SL-4.

(3) Part III - Special Tools, Test and Support Equipment

(4) Part IV - This is a NSN and reference number index, used only when the NSN or part number is known.

(5) Part V - This is a reference designator index and is used when the designator is known.

8. NATIONAL STOCK NUMBERS for SL-4 components

a. Unit of Measure - Provides the measurement standards, as it relates to the specific end item, not necessarily the one to use for requisitioning the part.

b. Quantity - Subdivided into (per application) and per equipment). This column shows how many are used for a particular application and how many of those particular items/parts are used within the end items.

9. Source Maintenance and Recoverability Codes

- a. XBOZZ
- b. XBHZZ
- c. MFFZZ
- d. PAOZZ
- e. PAFHH
- f. XAFZZ

10. MAINTENANCE RECORDS

a. As basic engineers, it will be to your benefit to know who is responsible for records, what records are required, and where to find instructions for complete usage of records and forms.

b. Responsibilities of a record's maintenance is primarily the Commanding Officer of a unit. However, it is the responsibility of the operator and maintenance personnel to make required entries on these forms once a PM (preventive maintenance) or CM (corrective maintenance) service has been completed.

11. THE NAVMC-10560

a. Purpose - is to provide a checklist for performing and recording QPM service and LTI's such as:

- (1) Acceptance LTI's.
- (2) LTI's prior to major repairs.

(3) When the section head, SNCOIC, OIC indicate.

b. Responsibilities

(1) The maintenance unit with the assistance of an operator, performs the services and signs the forms.

(2) An ERO will be used in conjunction with this form for PM and LTI's.

c. Preparation instructions for PM's

(1) Enter descriptive data in Section A.

(2) Utilizing the template, cross out all blocks which are not required for QPM's or which are N/A to that item.

(3) As each action is performed, enter the appropriate maintenance symbol in the service symbol column.

(4) List all discrepancies and associated action number under the remarks section.

(5) As each discrepancy is corrected, the mechanic accomplishing the task will place the date and his/her initials beside the noted discrepancies, in Section B (6) In the 'SS' column that pertains the mechanic will also circle the defect after it has been corrected.

12. LIMITED TECHNICAL INSPECTION COMPLETION

a. Preparation instructions for LTIs

- (1) Complete Section A and appropriate parts of Section C.
- (2) The maintenance unit will conduct the inspection.
- (3) The maintenance unit will indicate the repairs required and estimated cost of repairs.
- (4) The total estimated cost of all repairs would be entered in Section C.
- (5) The ERO number of the associated ERO will be entered in Section B.
- (6) For acceptance LTI's, the LTI block will be x'd, and acceptance LTI will be added.
- (7) Once all actions are completed fill in Section S.

b. Filing and Disposition

- (1) Worksheets for PM's will be filed in the equipment record folder until the completion of the next PM.
- (2) Worksheets for acceptance LTI's will be filed in the equipment record folder until the completion of the first PM.
- (3) Worksheets for CM (corrective maintenance) will be destroyed when all repairs are completed.

13. NAVMC-10245, EQUIPMENT REPAIR ORDER

a. Purpose

- (1) The purpose of an ERO is to request the performance of equipment maintenance to include modifications, calibration, and LTI's on tactical ground equipment.
- (2) It is used for transmitting work to higher echelons for maintenance and for recording and reporting the services performed in its accomplishment.
- (3) Maintenance personnel will use the ERO in all instances where either repair parts or resources are required in the performance of maintenance.
- (4) This form is not used to request or record either operator maintenance (first echelon) or depot level maintenance (fifth

echelon). However, it will be used to evacuate equipment requesting second and higher echelon maintenance when the supporting unit for second through higher echelon maintenance is other than the owning unit.

14. TM-4700-15/1

a. Lists the minimum required records and forms for proper operation and maintenance that are mandatory for use in the Marine Corps Maintenance System.

b. Provides instructions for the preparation, use and disposition of the minimum required records and forms associated with the operation and maintenance of Marine Corps Equipment.

15. FIRST ECHELON usage of the EQUIPMENT REPAIR ORDER:

It may be used by first echelon maintenance personnel in conjunction with the EROSL (Equipment Repair Order/Shopping List) to order SL-3 components.

16. RESPONSIBILITIES of the EQUIPMENT REPAIR ORDER:

a. Preparing Activities

(1) The preparing activity may be the equipment owner, the equipment user (e.g., the equipment is on temporary loan), or the equipment custodian as in the case of the maintenance shop evacuating the equipment to the next higher echelon.

(2) The preparing activity is responsible for initial preparation of an ERO to include completion of the heading and description of work to be performed.

(3) Those items marked with an asterisk(*) listed under preparation instructions will be completed by the preparing activity during initial preparation of the ERO.

(4) Maintenance Activities

(5) A maintenance activity will receipt for the equipment by completing the "Accepted By", date and ERO number blocks.

(6) A maintenance activity will enter information on work performed as maintenance actions are completed and will close out the ERO.

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

17. ERO COMPOSITION/DISPOSITION:

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

(b) The white copy is the original. Upon completion of all required maintenance service, the white copy will be returned to the user/owning unit and filed in the equipment record jacket for one year.

(c) The yellow copy is the owning unit receipt for equipment while at the maintenance activity. The yellow copy will be returned to the maintenance shop upon completion of all repairs. The yellow copy may be destroyed by the maintenance shop once the equipment is returned to the owning unit.

(d) The green copy is the shop copy. The green copy will contain the original signature of the individual drawing equipment from maintenance shop. The green copy will be retained in the files at the maintenance shop for a minimum of one year.

(e) The pink copy is the administrative copy. The pink copy can be used to input "0 and 9 card" data directly into the AIS (automated information system). The pink copy is destroyed in accordance with local procedures.

18. COMPLETION OF THE EQUIPMENT REPAIR ORDER:

a. Preparation Instructions

(1) ERO Number - The work order number assigned by the maintenance activity performing the repairs.

(2) Accepted By (Signature) - Enter the signature of the person accepting the equipment for the maintenance shop performing the repair.

(3) Date DRIS (Date Received in Shop) - Enter the Julian date on which the equipment is accepted by the maintenance shop performing the repairs.

* (4) Organization Doing Repairs - Enter the name of the maintenance shop performing the repairs to which the equipment is being evacuated for repairs.

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

* (6) Serial Number - Enter the serial number of the equipment, if assigned. The serial number is obtained from the data plate. The serial number will be right-justified (the last number of the serial number will always be in CC35 (card column)).

* (7) Authorized By (Signature) Date - The person who has been designated at the preparing activity to authorize work to be performed.

* (8) PRI (Priority) - Enter the priority assigned to the ERO. This entry is made by the preparing activity. However, it is important that we cover it in class since you will be using it during your "4" card practical application.

* (9) ID Number - Enter the system I.D. (Item Designator) number.

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

* (11) JON (job order number) - Enter the JON to be charged for the repair parts and maintenance of the equipment.

(12) Shop Section - The maintenance activity enters the appropriate shop section code as indicated in UM-47905.

(13) Item Number - Enter the number of each task performed in numerical sequence.

(14) Description of Work - The preparing activity will enter a brief description of each task or symptoms of the failure. The maintenance activity will indicate the tasks as performed.

(15) Labor (Hours) - Enter the total labor hours to the nearest one-tenth of an hour required to repair each defect listed in the "Description of Work".

(16) Mechanic (Signature) - Enter the signature of the mechanic performing the repair of the defect. If more than one mechanic performs the repair, the senior supervisor will sign his/her signature as the responsible individual.

19. NAVMC-10925 EROSL (ERO STOCKAGE LIST)

a. Purpose - The EROSL will be used in conjunction with the ERO to requisition, receipt for, cancel, and record partial issues and credits of repair parts associated with ground equipment undergoing repair. The EROSL is a dual-purpose form. It serves as the ERO shopping list and as a data input form. The EROSL is primarily for units supported by the FMSS of the MIMMS AIS.

b. Responsibilities - The ERO holder is responsible for initial preparation of the EROSL to include the header information, which consists of the following:

(1) ERO NO. - The Equipment Repair Order Number to which the EROSL refers.

- (2) Unit - The unit's name that is submitting the EROSL
- (3) Date - This date pertains to DRIS of the ERO to which the EROSL refers
- (4) Date/Init - The date the mechanic filled in the EROSL and the mechanic's initials to identify him/her.
- (5) Shop Section - This is the same section code that is on the ERO to which this EROSL refers.
- (6) "A" - Indicates the reference source (publication utilized)
- (7) "B" - "R" - These are used as specified by local SOPs (standard operating procedures).

20. MATERIAL USAGE CODE

Circle one of the following:

- (a) "6" is for SL-3 accessories/components
- (b) "7" is for secondary repairable or CM (corrective maintenance)
- (c) "8" is for modification
- (d) "9" is PM (preventive maintenance)

21. CARD COLUMN FORMAT ON THE EROSL

a. Preparation Instruction

(1) General Information - The EROSL pad contains seven templates with simplified instructions for preparing MIMMS AIS. To use the templates, select the one for the appropriate card type desired.

(2) Lay the template on the EROSL ensuring that the card columns of the template are aligned with the card columns on the EROSL and make desired entries. More detailed instructions and additional codes are available in the current UM-4790-5.

(3) Parts requisition - The "4" card transaction (transaction code # 4) is used to add or change a parts record. This transaction is completed by supply personnel.

(4) Card columns:

- (a) Transaction Code (CC-1), enter 4.
- (b) ERO Number (CC-2-6), enter the ERO number to which the

EROSL refers.

(c) Card columns 7-10, no entry required.

(d) NSN (CC-11-23), enter the appropriate NSN of the part(s) to be ordered (to be given by the instructor - example: 5330-00-346-5429.)

(e) Quantity (CC-24-26), enter the quantity of the repair part(s) to be ordered (example:001.)

(f) Card columns 27-41, no entry required, filled in by supply personnel.

(g) Priority (CC-42-43), enter the appropriate priority of the part(s) to be ordered (blocks 52,53, on sample ERO.)

(h) Supplementary address - (CC-44-48), no entry required, leave blank.

(i) Unit of issue (CC49-50), enter the unit of the part(s) to be ordered, given by the instructor.

(j) JON (job order number, CC 51-64), enter the assigned JON to which part(s) costs are to be charged, blocks 63-76 on ERO.

(k)(CC -65) Leave Blank

(l) Demand Code (CC-66), enter the proper demand code which reflects whether the demand for the repair is recurring (R) or nonrecurring (N).

(1) A repair part is normally recurring (R).

(2) A modification is nonrecurring (N).

(m) Not Operationally Ready Supply (CC-67).

(1) NORS indicates that the item is not operational because of lack of repair part(s).

(2) The item undergoing repairs must be of priority 06 or higher, enter the NORS indicator as follows:

(3) N for Deadlining a Repair Part

(4) b E for Anticipated Deadlining a Repair Part.

(n) Advice Code (CC-68-69), leave blank, this entry will be entered by supply personnel.

(o) Part name (CC-70-79), enter the nomenclature of the part(s) to be ordered, given by the instructor.

(1) Left-justified (first character in CC-70).

(2) If name or part is greater than spaces provide, abbreviate.

(p) Action Code (CC-80), enter the appropriate action code for the transaction.

(1) Enter A for new demand.

(2) Enter C to indicate a change to an existing form.

22. COMPLETION of the EROSL, NAVMC 10925

a. Disposition: The original ERO will be filed in the equipment folder after the ERO has been closed out and the EROSL may be disposed of.

b. If the unit is not in the MIMMS AIS, the EROSL will be retained for the same length of time as its associated ERO, which is one year.

23. NAVMC-10524, CONSOLIDATED ENGINEER EQUIPMENT OPERATION LOG AND SERVICE RECORD

a. Purpose is to provide a means for recording mileage and hours equipment is operated.

(1) To schedule PM (preventive maintenance).

(2) To determine fuel consumption.

(3) Indicates daily PM services which are performed by the operator before, during and after operation.

24. RESPONSIBILITIES WHILE COMPLETING SECTION "B" OF THE CONLOG, NAVMC 10524

a. Services as the operational authority and maintenance log for equipment that remains at project sites for extended periods of time.

b. The dispatcher/records clerk will maintain the NAVMC-10524.

c. Kept up-to-date so that the scheduled PM is performed when due.

d. The dispatcher/clerk prepares and issues to the operator a duplicate copy of form NAVMC-10524 prior to the operator's departure to a project site.

e. Before leaving the equipment pool, the operator performs services, oil changes or lubrication services which are due.

f. The operator utilizes form NAVMC-10524 for recording the hours that the equipment has been operated and fuel consumption.

g. The dispatcher/records clerk will transfer the totals and other pertinent data from the operator's form to the record jacket's original NAVMC-10524 form.

h. Disposition: When a form NAVMC 10524 is filled, the clerk will transfer all totals and other pertinent data from the filled form to a new form. Only the new form and the last used form will be maintained in the record jacket. The other older forms will be disposed of.

25. COMPLETION of SECTION A of the CONLOG:

This section (header) consists of general information on the equipment or the publications that this form is being completed for.

a. Equipment Nomenclature: Information is found at the ID plate for the equipment.

b. ID no: complete with the equipment's ID #.

c. USMC or Serial #: Equipment serial #.

d. Date record opened: enter the date this form was used for the first time.

e. Date record closed: Date this form was used for the last time.

f. Control # or unit: Unit's RUC #.

g. References: Technical manual's ID #.

h. Parts/SL4: SL-4's ID #(s).

i. Records TM: Alphabet letter that indicates the latest update of this publication.

j. PMCS Due: Add from the starting hours time to the standard hours set by the usmc for pmcs due(40, 100, 300, 500).

k. Scheduled PMCS: Indicates the standard hours used on the USMC for pmcs due (every 40, 100, 300, 500 hours).

l. Last Scheduled PMCS: Last date a scheduled pmcs was due.

m. Next Scheduled PMCS: Next date a pmcs is scheduled.

n. Lubrication Due Next: Type of lubrication in accordance with the Technical Manual.

26. SECTION B OF THE CONLOG :

This section will be completed on the days that the equipment is operated, to include any type of PMCS that occur during, before, or after the operation.

a. Date: enter the date this form was used for the first time, and every time it is operated.

b. Speedometer or Hourmeter Reading:

(1) Starting: enter the Starting hours for each operation.

(2) Stopped: enter the hour that the operation stopped.

c. Total Hours: Total hours of run time for each operation

d. Pol Consumption:

(1) Gas: this block is not used, it is crossed out. The equipment does not utilize Gas.

(2) Diesel: enter quantity of fuel consumed per operation.

(3) Oil (Enter 30 for type of oil weight utilized on the equipment): Enter the amount consumed per operation.

e. Air Filter Cleaned/Changed: Enter CH or CL when the air filter is changed or cleaned on the dates that this preventive, correction action takes place.

f. Hour/ Mi PMCS completed: Enter Hourmeter's time when the PMCS was completed.

g. ERO NO: If an ero is opened this ero# will be entered on the date it was opened.

h. Unit: Complete with the unit's ruc # (used when the ero has been opened, on the date this ero was opened.)

i. Signature: enter the mechanic's signature that performed the pmcs: (completed when an ero# is opened, on the date that it was opened.

j. The backside of this form will provide you with the information needed to perform a pmcs. In case there is a discrepancy, it provides the corrective action to be performed.