U.S. Department of
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United States
Coast Guard

ET1 UNIT 2: UNIT PMS DEVELOPMENT & MAINTENANCE

EPQ 6.A.01 How to Verify the Unit's CGPMS

EPQ 6.A.02 How to Submit a Feedback Report

EPQ 6.A.03 How to Develop a PMS Schedule

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ET1 UNIT 2: UNIT PMS DEVELOPMENT & MAINTENANCE

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QUESTIONS ABOUT THIS TEXT SHOULD BE ADDRESSED TO THE SUBJECT MATTER SPECIALIST FOR THE ELECTRONICS TECHNICIAN RATING

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Acknowledgments and References

Acknowledgments

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The Coast Guard wishes to thank the following individuals for their expertise and support in the development of this document:

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Mr. Terry Wall

List of References

This pamphlet contains original material developed at the U. S. Coast Guard Training Center, Petaluma, California, and excerpts from the following technical publications:

- *Electronics Manual*, COMDTINST M10550.25 (series)
- *CMplus 5.1 Job Aids*
- MLC Standard Operating Procedures
- System Integrated Logistics Support (SILS) Command Policy Manual, COMDTINST M4105.8 (series)
- ELC Support Gram http://cgweb.elcbalt.uscg.mil/sptgram/Default.htm

Notice to Students

Purpose

This pamphlet serves to provide you with knowledge of how to address certain administration and documentation tasks required of an ET1.

Important Note

This text has been compiled for TRAINING ONLY. It should NOT be used in place of official directives or publications. The test information is current according to the references listed. You should, however, remember that it is YOUR responsibility to keep up with the latest professional information available for your rating. Current information is available from the *Enlisted Performance Qualifications Manual*, COMDTINST M1414.8 (series).

Course Content

This course content is based on the requirements stated in the *Enlisted Performance Qualifications Manual*, COMDTINST M1414.8 (series).

Pamphlet Content

This pamphlet contains three lessons:

Lesson 1: How to Verify the Unit's CGPMS

Lesson 2: How to Submit a Feedback Report

Lesson 3: How to Develop a PMS Schedule

Performance Qualifications

This pamphlet covers the following enlisted performance qualifications (EPQ) for ET1 from the *Enlisted Performance Qualifications Manual*, COMDTINST M1414.8 (series):

6.A.01 VERIFY the unit's Coast Guard Planned Maintenance System (CGPMS) is accurate per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); Ship's Maintenance and Material Management (3M) Manual, OPNAVINST 4790.4 (series); and the CGPMS User's Guide.

6.A.02 SUBMIT a feedback report (FBR) to correct a deficiency in CGPMS as per the CGPMS User's Guide and the Electronics Manual, COMDTINST M10550.25 (series) or the 3M Manual, OPNAVINST 4790.4 (series).

6.A.03 DEVELOP a unit PMS schedule for all equipment for at least one quarter per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); Ship's Maintenance and Material Management (3M) Manual, OPNAVINST 4790.4 (series); and the CGPMS User's Guide.

Continued on next page

Notice to Students (continued)

Read the learning objectives before you begin reading the text. The objectives will guide you through the text and help you answer the questions in the self-quiz at the end of each lesson.

Quizzes

Each lesson has a self-quiz and pamphlets may have a review quiz. You will find answers to each quiz on the pages following the quiz. Included are reference pages for the answers.

These self-quizzes are meant to check your comprehension of the material you covered. If you have problems understanding a section, go through it again or ask someone for help. The pamphlet review quiz questions are samples of the type of questions you will find on the end-of-course-test (EOCT).

SWE Study Suggestion

Servicewide exam questions for your rate and pay grade are based on the Professional and Military Requirements sections of the *Enlisted Performance Qualifications Manual*, COMDTINST M1414.8 (series).

If you use the references from this text and consult the *Enlisted Performance Qualifications Manual*, you should have good information for review when you prepare for your servicewide exam (SWE).

Glossary of Terms

A glossary of terms is included at the end of this pamphlet as Appendix C.

Lesson 1
HOW TO VERIFY THE UNIT'S CGPMS

Overview

Introduction

The purpose of the Preventative Maintenance System (PMS) is to have a pro-active maintenance plan vice a reactive maintenance plan. Electronic equipment is going to fail. By monitoring historical aspects of parts that fail, a maintenance plan can be developed to test high failure areas.

All ordnance equipment is to be maintained IAW the Ordnance Manual COMDTINST M8000 (series), and the Maintenance Material Management (3-M) Instruction OPNAVINST 4790.4 (series). Knowing how to properly prepare PMS schedules is essential, at all levels, to the timely scheduling, accomplishment, and documentation of work center responsibilities. It is important to note that scheduling is only one part of PMS management from this structure several other functions are built. Understanding PMS scheduling will help make you a valuable asset to your division, department, and unit.

Lesson Objectives

Given a list of terms and definitions associated with the PMS system, **MATCH** each term with its correct definition.

Given OPNAVINST 4790.4 (series) and work center related PMS Information, **VERIFY** the relevance and accuracy of the material.

Given specific equipment configuration information, **SELECT** the properly completed configuration change report.

Given an OPNAVINST 4790.4 (series) and required information, **PRODUCE** required forms from the PMS system.

References

The following references were used for this lesson:

- OPNAVINST 4790.4 (Series) Ship's Maintenance, Material, and Management (3-M) manual
- COMDTINST M8000 (Series), *Ordnance Manual*
- COMDTINST M10550.2 (Series), E*lectronics Manual*
- NWP 1-3.1 Operational Reports (Formally NWP 10-1-10)

Continued on next page

Overview (Continued)

Navy PMS	Electronic or ordnance equipment loaned by the Navy to the Coast Guard is supported by the Navy, and used to fill a Navy operational requirement. As ET's, you will use the Navy's Maintenance, Material, and Management (3-M) system to maintain your system.
CGPMS	The Coast Guard Preventive Maintenance System (CGPMS) is a standardized preventive maintenance program for Coast Guard equipment not covered by Navy Preventive Maintenance. This system is based on the Navy PMS system; there are some minor term differences.

Verify PMS Documents

Introduction

PMS for each work center is scheduled to prevent duplication or omission of maintenance. As an ET you will be responsible not only to complete the maintenance but also to produce or verify the various schedules ("boards") used to record the maintenance.
The schedules are:

Schedule	Description
Cycle	Used to plan and schedule maintenance requirements to be conducted during each calendar quarter. This schedule is updated after overhaul (dry-dock) or component change
Quarterly	Displays the work center's PMS requirements to be performed during a specific 3-month period. This schedule, updated weekly, provides a ready reference to the status of PMS for each work center.
Weekly	Displays the planned maintenance scheduled for accomplishment in a given work center during a specific week. A Weekly PMS schedule is posted in each work center and used by the work center supervisor to assign and monitor the accomplishment of required PMS tasks by work center personnel.

Supporting Documents

To correctly produce the various PMS schedules you will need to verify the following documents:

- LOEP customized to a specific work center
- MIPs customized to applicable maintenance actions
- OPNAVINST 4790.4 (Series) detailed instruction on completing each type of schedule.

Continued on next page

PMS Documents (Continued)

LOEPs

The List of Effective Pages (LOEP) is a report from the Navy. It is report number PMS 5. It is a part of the Work Center PMS Manual. The LOEP is received from the Navy by MLC and is forwarded to the unit. Each LOEP is unit and work center specific.

The LOEP is divided into two sections:

- Header Section
- Body Section

LOEP Contents Header Section

The Header section contains the following fields:

Note: *Refer to the sample LOEP*

Field Number	Description
1	Date – The date the SFR was generated
2	Time – The time the SFR was generated.
3	SFR Number – Two parts: Number of the SFR 1 = First SFR of the year 2 = Second SFR of the year Last two digits of year Example: 1-02
4	Unit – The type of unit. Example: WHEC 718
5	UIC – Unit Identification Code. Six character unique code for each unit.
6	Work Center – Specific work center this LOEP was generated. Example: FT01
7	Unit Name – Example: USCGC Chase

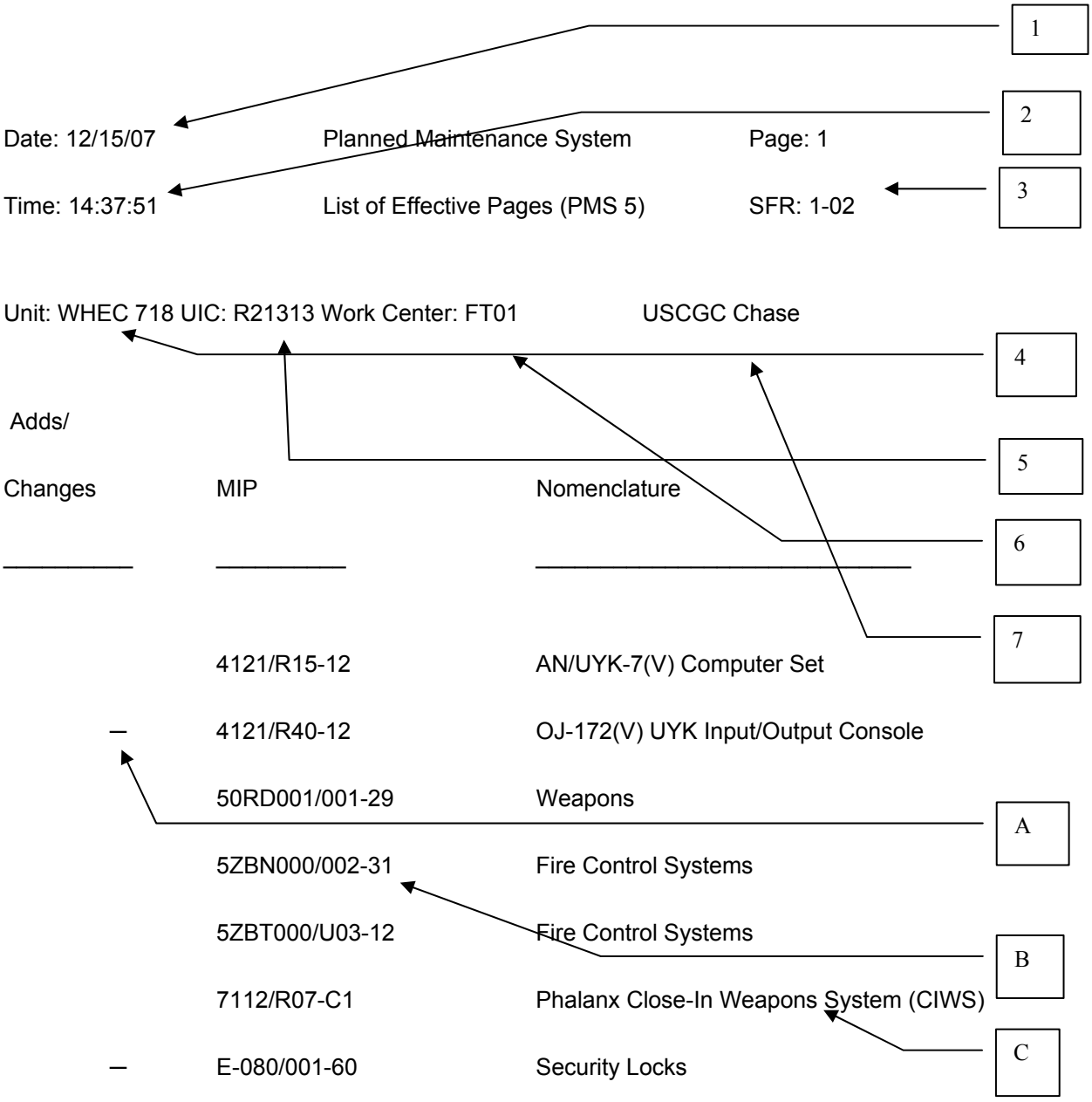
LOEP Contents Body Section

The Body section contains the following fields:

Field	Description
A	Adds/Changes – Indicates if there has been an Add or Change to that MIP. Indicated by a (—) next to MIP number.
B	MIP number – Specific MIP number and generation Date Code
C	Nomenclature – The specific name of the system or equipment.

Continued on next page

Sample LOEP Sample LOEP from the Cutter Chase.



Continued on next page

PMS Documents (Continued)

MIP

Maintenance Index Pages (MIP's) are prepared and issued for each installed system/equipment for which PMS support has been established. They are the basic PMS reference document. Each is an index of the complete set of Maintenance Requirement Cards (MRC's) applicable to a ship system, subsystem, or equipment.

MIP Contents

MIPs are designed alike. MIPs contain the following fields (*refer to the sample MIP)*:

<table>
<tr><th>Field Number</th><th>Description</th></tr>
<tr><td>1</td><td>a. SYSCOM MIP control number
b. Generation date by month and year</td></tr>
<tr><td>2</td><td>Ship system, system, subsystem, or equipment (nomenclature/Mark, Mod.)</td></tr>
<tr><td>3</td><td>Reference publications</td></tr>
<tr><td>4</td><td>Configuration</td></tr>
<tr><td>5</td><td>Scheduling Aides – notes used to help the person scheduling the MRCs.</td></tr>
<tr><td>6</td><td>Maintenance Actions – divided into six columns. The MRCs are subdivided into three sections:
Scheduled
Unscheduled
Inactive Equipment Maintenance – is sub-divided into four subsections:
• Lay-up Maintenance
• Periodic Maintenance
• Start-up Maintenance
• Operational Test
<table>
<tr><th>Column</th><th>Description</th></tr>
<tr><td>a</td><td>SYSCOM MRC control number (three different systems in use, all end in a two character date code)</td></tr>
<tr><td>b</td><td>Maintenance Requirement Description</td></tr>
<tr><td>c</td><td>Periodicity Code</td></tr>
<tr><td>d</td><td>Rate (skill level)</td></tr>
<tr><td>e</td><td>Man-Hours</td></tr>
<tr><td>f</td><td>Related maintenance</td></tr>
</table>
</td></tr>
</table>

Continued on next page

Sample MIP Sample MIP from OJ-172 (V)/ UYK Input / Output Console.

Maintenance Effectiveness Review (MER) Analyzed 08/17/2001

DISTRIBUTION STATEMENT D:

Distribution authorized to DOD components and DOD contractors only; Critical Technology; January 2002. Other requests for this document shall be referred to Naval Sea Systems Command (SEA 04M). Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

1a - b

MIP CONTROL NUMBER: 4121/R40-12 **Date:** January 2002

SHIP SYSTEM, SYSTEM, SUBSYSTEM, OR EQUIPMENT
OJ-172(V)/UYK
Input/Output Console
4121

2

REFERENCE PUBLICATIONS
NAVSEA 0967-LP-011-0172
SE 640-AD-MMM-010
SE 640-AD-MMM-020
SE 640-AD-MMM-030

3

CONFIGURATION
Paper Tape Reader (NMR)
Paper Tape Punch (NMR)
Incorporates Surface Maintenance Effectiveness Review (SURFMER) Cycle 37

4

SCHEDULING AIDS
1. Review and delete MRCs not applicable to your configuration. No feedback report required.

** For scheduling purposes only; no MRC is

5

OTHER	MRC NO.	MAINTENANCE REQUIREMENT DESCRIPTION	PERIODICITY CODE	RATES	MAN HRS	RELATED MAINT
	12 FV02 N	1. Inspect and clean magnetic tape unit (MTU) guidance system.	W-1	ET/FC3	0.5	None
	12 FV10 N	1. Inspect and clean input/output console.	Q-1	ET/FC3	1.0	None
	12 FV25 N	1. Inspect, clean, and lubricate teletypewriter.	S-1	ET/FC3	1.5	None
	12 FV18 N	1. Inspect and clean magnetic tape unit (MTU).	A-1	ET/FC3	0.5	S-1
		UNSCHEDULED MAINTENANCE				
	47 FV28 U	1. Measure power supply voltages. 2. Measure time delays.	U-1			None
	47 FV19 U	**Magnetic Tape Unit (MTU)** 1. Measure power supply voltages. 2. Measure solar cell, lamp, and EOT/BOT sensor currents. 3. Measure capstan speed. 4. Measure read-write amplifier outputs. 5. Measure start-stop delays.	U-2			None

6a- f

Scheduled

Maintenance Index Page (MIP) Page 1 of 2 SYSCOM MIP: 4121/R40-12
OPNAV 4790/85 (REV. 9-97)

Continued on next page

PMS Documents (Continued)

MRC

Maintenance Requirement Cards - provides detailed procedures for performing a maintenance requirement. An MRC describes who, what, how, and with what resources a specific requirement will be accomplished.

MRC Contents

MRCs are designed alike. MRCs contain the following fields *(refer to the sample MRC)*:

<table>
<tr><th>Field Number</th><th>Description</th></tr>
<tr><td>1</td><td>MRC Code consists of two parts.
<table>
<tr><th>Part number</th><th>Description and Example</th></tr>
<tr><td>a</td><td>MIP series code</td></tr>
<tr><td>b</td><td>Periodicity code (Periodicity codes will be explained in detail later in this lesson.)</td></tr>
</table></td></tr>
<tr><td>2</td><td>Ship System, System, Subsystem, Equipment. Identification of the ship system (functional group), system, subsystem, or equipment involved</td></tr>
<tr><td>3</td><td>Rates. Identifies the recommended skill level of the person(s) considered capable of performing the maintenance requirements.</td></tr>
<tr><td>3</td><td>Man-Hours (M/H). The average time per equipment required of each rate listed in rates block to perform the maintenance, listed in hours and tenths of an hour. When more than one person in the same rate is required and time requirements are equal, M/Hs listed are the sum of their requirements. When more than one person in the same rate is required and time requirements are not equal, M/Hs are listed for each person separately.
NOTE
Does not include time to collect tools, tag out, or removal and/or replacement of parts.</td></tr>
<tr><td>4</td><td>Maintenance Requirement Description. A brief definition of the PMS action to be done.</td></tr>
<tr><td>5</td><td>Safety Precautions. A listing of those precautions and references, which direct attention to possible hazards to personnel and equipment while doing maintenance</td></tr>
<tr><td>6</td><td>Tools, Parts, Materials, Test Equipment</td></tr>
</table>

Continued on next page

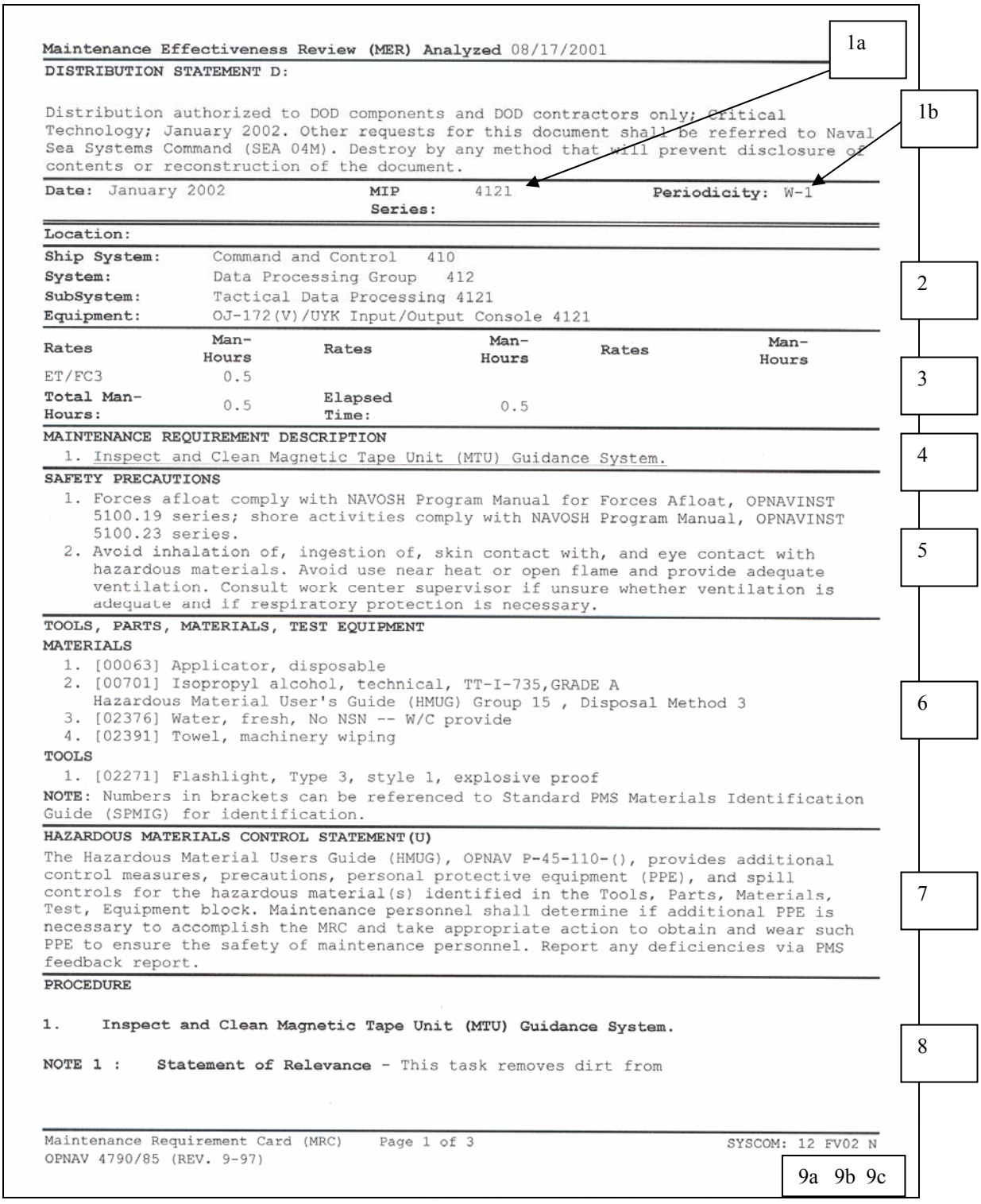
MRC Contents (cont'd)

<table>
<tr><th>Field Number</th><th>Description</th></tr>
<tr><td>7</td><td>Hazardous Material Control Statement. This statement concerning HAZMAT safety and instructions.</td></tr>
<tr><td>8</td><td>Procedure block is the step-by-step procedure to complete the maintenance requirement.</td></tr>
<tr><td>9</td><td>SYSCOM number is a unique identifier for that MRC it is a three part code.
<table>
<tr><th>Part number</th><th>Description and Example</th></tr>
<tr><td>a</td><td>Development date.
First digit - month of development.
NOTE
October, November, and December represented by the letters A, B, and C.

Second digit – last digit of the year of development</td></tr>
<tr><td>b</td><td>NAVSEA unique four character code</td></tr>
<tr><td>c</td><td>Order Parts for Replacement
Y= yes
N= no</td></tr>
</table>
</td></tr>
</table>

Continued on next page

Sample MRC Sample MRC from OJ-172 (V)/ UYK Input / Output Console.



Maintenance Effectiveness Review (MER) Analyzed 08/17/2001

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Date: January 2002 **MIP Series:** 4121 **Periodicity:** W-1

Location:

Ship System: Command and Control 410
System: Data Processing Group 412
SubSystem: Tactical Data Processing 4121
Equipment: OJ-172(V)/UYK Input/Output Console 4121

Rates	Man-Hours	Rates	Man-Hours	Rates	Man-Hours
ET/FC3	0.5				
Total Man-Hours:	0.5	**Elapsed Time:**	0.5		

MAINTENANCE REQUIREMENT DESCRIPTION

1. Inspect and Clean Magnetic Tape Unit (MTU) Guidance System.

SAFETY PRECAUTIONS

1. Forces afloat comply with NAVOSH Program Manual for Forces Afloat, OPNAVINST 5100.19 series; shore activities comply with NAVOSH Program Manual, OPNAVINST 5100.23 series.
2. Avoid inhalation of, ingestion of, skin contact with, and eye contact with hazardous materials. Avoid use near heat or open flame and provide adequate ventilation. Consult work center supervisor if unsure whether ventilation is adequate and if respiratory protection is necessary.

TOOLS, PARTS, MATERIALS, TEST EQUIPMENT

MATERIALS

1. [00063] Applicator, disposable
2. [00701] Isopropyl alcohol, technical, TT-I-735,GRADE A
   Hazardous Material User's Guide (HMUG) Group 15 , Disposal Method 3
3. [02376] Water, fresh, No NSN -- W/C provide
4. [02391] Towel, machinery wiping

TOOLS

1. [02271] Flashlight, Type 3, style 1, explosive proof

NOTE: Numbers in brackets can be referenced to Standard PMS Materials Identification Guide (SPMIG) for identification.

HAZARDOUS MATERIALS CONTROL STATEMENT(U)

The Hazardous Material Users Guide (HMUG), OPNAV P-45-110-(), provides additional control measures, precautions, personal protective equipment (PPE), and spill controls for the hazardous material(s) identified in the Tools, Parts, Materials, Test, Equipment block. Maintenance personnel shall determine if additional PPE is necessary to accomplish the MRC and take appropriate action to obtain and wear such PPE to ensure the safety of maintenance personnel. Report any deficiencies via PMS feedback report.

PROCEDURE

1. Inspect and Clean Magnetic Tape Unit (MTU) Guidance System.

NOTE 1 : Statement of Relevance - This task removes dirt from

Maintenance Requirement Card (MRC) Page 1 of 3 SYSCOM: 12 FV02 N
OPNAV 4790/85 (REV. 9-97)

1a
1b
2
3
4
5
6
7
8
9a 9b 9c

Continued on next page

Periodicity Codes

The periodicity code is used to identify the time interval between completions or the frequency of completion of a maintenance requirement. Knowing these codes will aide in the scheduling process.

There are two types of Periodicity Codes

- Calendar (based in interval)
- Non-Calendar (based on special circumstances)

Note: *Non-Calendar periodicities CANNOT initially be scheduled for, on ANY schedule.*

Authorized Periodicity Codes

Code	Meaning	Interval
A	Annual	Scheduled once a year
S	Semi-Annual	Twice a year (every other Quarter)
Q	Quarterly	Once each quarter (2 to 4 months apart)
M	Monthly	Once each month (3 to 6 weeks apart)
W	Weekly	Once each week
D	Daily	Daily
xM	X = amount of additional separation	4M = Every 4 months 36M(5,17) = Every 36 months (scheduled in the 5 and 17 Quarter after overhaul)
xW	X = amount of additional separation	2W = Every 2nd week
xD	X = amount of additional separation	3D = Every 3rd day

Continued on next page

Authorized Periodicity Codes (cont'd)

Non-Calendar Periodicity		
Code	**Meaning**	**Interval**
R	Situational Requirement	As required (e.g., while underway)
U	Unscheduled	As a result of a casualty this maintenance was completed
Inactive Equipment Maintenance (IEM)		
LU	Layup maintenance	Performed before going into a yard period were the equipment is unused and covered
PM	Preventative maintenance	Performed while equipment is in layup to ensure coverage
SU	Start up	Performed on equipment to remove it from layup status
OT	Operational test	Performed to check normal operation after layup

Mandatory Related Maintenance

Any periodicity code followed by the # sign will have a mandatory related maintenance. Both maintenance checks must be scheduled together in the same week/day.

Example: M-1#(W-1)
Meaning the scheduled monthly check has a required weekly check that must also be scheduled and completed.

Sequential Numbering

After the periodicity code there will be a number indicating the sequential number of checks with that same periodicity.

Example:
M-1, M-2, M-3… as required.

Note: *Not all MIPs have multiple checks with the same periodicity.*

Configuration Information

Introduction

The OPNAV 4790/CK Form is used to report completion (or partial completion) of alterations, maintenance actions that resulted in a configuration change, and to correct discrepancies and errors in the configuration files.

OPNAV 4790/CK Form

Three blocks at the top of the form are used to specify what type of action is being reported (a configuration file correction "CONFIG FILE CORR", a completed maintenance action that had no prior deferral "COMP M/A NO DEFL", and a block to indicate a completed deferral "COMP DEFL").

The rest of the form is separated into four sections (*refer to sample 4790/CK)*:

Section	Section Name	Description
I	Job identification	Identifies the system or equipment involved in the configuration action. If a component/subunit is being reported, the Job Identification in this section must be that of the highest assembly. Components/ subunits are reported in Section III.
II	Job description/ remarks	Contains remarks relating to the accomplishment of the action. In some cases, an alteration directive will specify that certain information be documented.
III	Component configuration change identification	Contains information on the component(s) affected by the maintenance (configuration change) action. The Job Identification Level (SECTION I) will be completed to the highest assembly directly affected by the change. The subunits (components) are reported to the individual APL level in SECTION III. An OPNAV 4790/CK allows only one component (subunit) to be reported per form. When multiple subunits need to be reported, "CONTINUATION SHEET(s)" OPNAV 4790/CK(C), that can report up to four components per form can be attached.
IV	Special purpose	Filled in onboard, with the exception of Block 30, which is no longer applicable.

Continued on next page

Sample Form Refer to section descriptions for content of each section.

SHIP'S CONFIGURATION CHANGE FORM — OPNAV 4790/CK

SECTION I JOB IDENTIFICATION

JOB CONTROL NUMBER			ALTERATION IDENTIFICATION
1. SHIP'S UIC	2. WORK CENTER	3. JOB SEQ. NO.	4. ALTERATIONS (SHIPALT, ORDALT, FLD. CHG, etc.)
05837	EM01	12459	

A. SHIP'S NAME	B. HULL NUMBER	C. ENG	D. ACTION
USS PUGET SOUND	AD 38	T801	1

5. EQUIPMENT NOUN NAME	6. S/F MRFS EXP.	9. ACT. MAINT. TIME	10. COMP. DATE	11. MAN
FIRE PUMP MTR	0056	023	4018	

SECTION II JOB DESCRIPTION/REMARKS

12. JOB DESCRIPTION/REMARKS: REPLACED DEFECTIVE MOTOR

SECTION III CONFIGURATION CHANGE IDENTIFICATION

13. COMPONENT NOUN NAME	14. QUANTITY	15. CA
MOTOR AC	001	R

16. COMPONENT IDENTIFICATION	17. COMPONENT SERIAL NUMBER
4	NONE

18. COMPONENT APL/AEL	19. LOCATION (DECK/FRAME/SIDE)	20. ENG
174751305	6-117-0-E	T801

21. NEXT HIGHER ASSEMBLY	21. SAC	23. WORK CENTER
FIRE MAIN SYSTEM	0AANME	M01

24. NAMEPLATE DATA

25. MIP	26. EOSS
EL 4 / 28 - 51	

27. TM: 0922-LP-010-6010

SECTION IV. SPECIAL PURPOSE

28. RIN	29. AILSIN	30. SECAS OFFICE USE
A0102		

- INSTRUCTIONS -

ITEM NUMBER	SECTION I & II DESCRIPTION	SECTION I & II PAGE 1	SECTION I & II CONT PAGE
1-3	JOB CONTROL NUMBER	M	M
4	ALTERATION IDENTIFICATION	IP	IP
5	EQUIPMENT IDENTIFICATION	M	NR
6	ACTION TAKEN	M	NR
7	EQUIPMENT NOUN NAME	M	NR
8	SHIP'S FORCE MANHOURS	M	NR
9	ACTIVE MAINTENANCE TIME	M	NR
10	COMPLETION DATE	M	NR
11	METER READING	IP	NR
12	JOB DESCRIPTION (REMARKS)	O	NR

ITEM NUMBER	SECTION III DESCRIPTION	REMOVE (R/D)	INSTALL (I/A)	MODIFY (M/C)
13	COMPONENT NOUN NAME	M	M	M
14	QUANTITY	M	M	M
15	COMPONENT ACTION	M	M	M
16	COMPONENT IDENTIFICATION	IP	IP	IP
17	COMPONENT SERIAL NUMBER	IA	IA	IA
18	COMPONENT APL/AEL	M	IA	IA
19	LOCATION	M	M	M
20	EQUIPMENT IDENTIFICATION CODE	NR	IA	NR
21	NEXT HIGHER ASSEMBLY	IP	IP	IP
22	SERVICE APPLICATION CODE	IA	IA	IA
23	WORK CENTER	NR	M	NR
24	NAMEPLATE DATA	NR	M	NR
25	MAINTENANCE INDEX PAGE	IA	IA	IA
26	EOSS	IP	IP	IP
27	TECHNICAL MANUAL NUMBER	IA	IA	IA

LEGEND

IA IF AVAILABLE — O OPTIONAL
IP IF APPLICABLE — NR NOT REQUIRED
M MANDATORY

SECTION I, BLOCK 6 ACTION TAKEN

5A - PARTIALLY COMPLETED ALTERATION
5B - FULLY COMPLETED ALTERATION
5C - FULLY COMPLETED EQUIVALENT TO ALTERATION
5D - ALTERATION DIRECTIVE NOT APPLICABLE
1 - MAINTENANCE ACTION COMPLETED; PARTS
2 - MAINTENANCE ACTION COMPLETED; REQUIRED PARTS NOT DRAWN FROM SUPPLY (LOCAL MANUFACTURE, PRE-EXPENDED BINS)
3 - MAINTENANCE ACTION COMPLETED; NO PARTS REQUIRED

SECTION III, BLOCK 15 COMPONENT ACTION

MAINTENANCE ACTIONS
R - REMOVED EQUIPMENT
I - INSTALLED EQUIPMENT
M - MODIFIED EQUIPMENT

CONFIG FILE CORR NO MAINTENANCE ACTION
A - ADDITION OF RECORD
D - DELETION OF RECORD
C - CORRECT/CHANGE EXISTING RECORD

WORK CENTER SUPERVISOR	DIVISION OFF	SUPPLY DEPT	3M COORDINATOR	SHIP SEQUENCE NUMBER
ABC	NBC	WRC	MAL	69999

PAGE 1 OF 2

Configuration Change Resulting from a Maintenance Action
(Component Removal)

Continued on next page

OPNAV 4790/CK (Continued)

Completing a 4790/CK

Each section is divided into numbered fields. There are thirty fields on the form. The exact entries for each field is explained in the procedures for completing a "CONFIG FILE COOR", “COMP M/A NO DEFL", or "COMPDEFL" CK in Appendix B of OPNAVINST 4790.4 (Series) 3-M Manual.

The procedures for completing a CK comprise more than five pages and thirty steps (one for each field), so refer to the 3-M manual for the exact procedure.

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Practice Exercise

Introduction

Use this exercise to increase the retention of the material covered in this lesson. The directions for each exercise will be given with that exercise/s. The answers to the exercise/s will be in the feedback section.

Exercise Questions

Indicate your answers to the following questions, and then check the Feedback on the next page.

1. Electronic or ordnance equipment loaned by the Navy to the Coast Guard is supported by the _____, and used to fill a Navy operational requirement.

2. The _____ is a standardized preventive maintenance program for Coast Guard equipment not covered by Navy Preventive Maintenance.

3. Any periodicity code followed by the _____ will have a mandatory related maintenance.

Feedback

Exercise Answers

Compare your answers to the following:

Question	Answer	Reference Page
1.	Navy	1-2
2.	Coast Guard Preventive Maintenance System (CGPMS)	1-2
3.	# sign	1-12

Lesson 2

HOW TO SUBMIT A FEEDBACK REPORT

Overview

Introduction

Feedback reports (FBRs) are an important tool for allowing technicians to provide inputs into the Coast Guard Preventive Maintenance System (CGPMS) or the U.S. Navy Planned Maintenance System (PMS) program. FBRs are used by technicians to:

- Report safety concerns
- Report errors in CGPMS materials
- Report errors in Navy PMS materials
- Report problems with maintenance procedures
- Order CGPMS materials
- Order Navy materials

Lesson Objectives

Given an OPNAVINST 4790.4 (series) and required information, **PRODUCE** PMS FBR form.

Given instructional materials and CMplus, **CREATE** a CGPMS FBR.

Using procedures provided for the CGPMS and Navy PMS systems, **SUBMIT** a completed FBR.

References

The following references were used for this lesson:

- CGPMS, COMDTINST M10550.25
- CGPMS Work Schedule Book, User Guide Section
- *CMplus 5.1 Job Aids*
- Maintenance, Material, and Management (3-M) Manual, OPNAVINST 4790.4 (series)

Continued on next page

Overview (Continued)

CGPMS vs. Navy PMS

Not all equipment in the Coast Guard is the property of the Guard. To determine which PMS system the equipment is covered under, use the following table.

If the equipment is…	Which means…	Then use…
Navy-Type/Navy-Owned (NTNO) Equipment	Electronic equipment loaned by the Navy to the Coast Guard, supported by the Navy, and used to fill a Navy operational requirement	OPNAVINST 4790.4 (series) to develop, perform, and document equipment PMS
Navy-Type/Coast Guard-Owned Electronic Equipment	Equipment procured from the Navy, supported by the Coast Guard, and used to fill a Coast Guard operational requirement	CGPMS Work Schedule Book and the CMplus system to develop, perform, and document equipment PMS OR OPNAVINST 4790.4 (series) to develop, perform, and document equipment PMS covered under Navy PMS
Coast Guard-Type/Coast Guard-Owned Equipment	Equipment, procured by the Coast Guard, used to fill a Coast Guard operational requirement	CGPMS Work Schedule Book and the CMplus system to develop, perform, and document equipment PMS

Continued on next page

Comparison of PMS Terms

CGPMS and Navy PMS perform the same function, but terms related to each are different. Use the following table to compare terms and documentation related to each system.

Term or Documentation	CGPMS	Navy PMS
Maintenance Index Page (MIP)		X
Index of Maintenance Procedures (IMP)	X	
Maintenance Requirement Card (MRC)		X
Maintenance Procedure Card (MPC)	X	
4790/7B Feedback Report		X
Form 5451 Feedback Report	X	

Feedback Reports

Introduction

The PMS Feedback Report—OPNAV 4790/7B or CGPMS Form 5451—is used to notify Fleet Technical Support Center Atlantic or Pacific (FTSCLANT / FTSCPAC), Type Commander (TYCOM), CG Office of Electronic Systems (CG-64), and Engineering Logistic Commands (ELCs) to report deficiencies or recommendations for changes in PMS as well as administrative and miscellaneous PMS requests or comments.

FBR Types

There are three types of FBRs:

- Non-technical (Category A)
- Technical (Category B)
- Urgent FBR (Category B)

Category	When Used
A	Used for replacement of missing or mutilated MIPs and MRCs, equipment changes, etc. This category of FBR is non-technical in nature and is intended to meet PMS needs that do not require technical review. ***NOTE:*** *Consequently, to reduce response time the action copies of Category A FBRs are submitted directly to FTSC by the unit with a copy to the Commandant (G-RCU).*
B	Reports technical discrepancies inhibiting PMS performance. These discrepancies can exist in documentation, equipment design, maintainability, reliability, or safety procedures, as well as operational deficiencies in PMS support (parts, tools, and test equipment). Also, TYCOM assistance in the clarification of 3-M instructions. ***NOTE:*** *There are no TYCOMs for districts/areas. Submit Category B FBRs to the appropriate MLC (vr), who will then make recommendations and forward to COMDT (G-RCU). For small arms, Category B action copies are submitted to Commandant (G-RCU).*
Urgent FBR	When the reason for submission of PMS FBR involves safety of personnel, or potential or actual damage to equipment, and relates to the technical requirements of PMS, the FBR will be considered URGENT. See the 3-M Manual, OPNAVINST 4790.4 (series), for specific address and instructions.

Feedback Reports (Continued)

Obtaining an FBR Form

CG Form 5451 is available through CG Adobe Forms. (At your workstation, select **Start|Programs|USCG Program Apps|USCG Adobe Forms** and **USCG Adobe Forms** shortcut.)

Navy Form OPNAV 4790/7B is available through the supply system or other automated systems.

Completing a CG Form 5451

The instructions for completing and submitting a Feedback Report, CG Form 5451, can be found in the CGPMS Users Guide.

> **Note:** *Complete each block of the CG Form including Serial Number. The serial number is a locally generated and track number, which may include the Julian date and sequential number… e.g., 3205/001.*

Completing an OPNAV 4790/7B

The procedure for completing an OPNAV 4790/7B can be found in two places:

The 3-M Manual, OPNAVINST 4790.4 (series), Chapter 3. Follow specific instructions for each type of feedback report.

The back of the 4790/7B provides instructions for completing the FBR.

Submitting an FBR

Feedback reports can be submitted as follows:

CG FBRs may be e-mailed to the following address:
CGPMS/ELC@internet.uscg.mil

- Normally Category A and Urgent FBRs are submitted by the group. Category A FBRs may be submitted at the organizational level.
- Category B Navy FBRs should be mailed to:

  Commanding Officer
  FTSC (Code 401C)
  P.O. Box 85548
  San Diego, CA 92138-5548
- Questions, comments, suggestions or recommendations concerning any aspect of CGPMS may be sent by fax, e-mail, or FBR to:

  CGPMS Manager
  P.O. Box 2340
  Fairfax, VA 22031-0340
  Telephone: 1 (888) 872-4767 (888-USCGPMS)
  E-Mail: mail@cgpms.com
  Fax: (703) 691-8105

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Practice Exercise

Introduction

Use this exercise to increase the retention of the material covered in this lesson. The directions for each exercise will be given with that exercise/s. The answers to the exercise/s will be in the feedback section.

Exercise

Match the term, definition, or function from column A with the correct theory, equipment, or procedure from column B. Write your answer in the space provided. Use each answer once.

	Term, Definition, Function	**Description, Use, Form**
_____	1. OPNAVINST 4790.4 (series) PMS	A. Covers equipment procured by the Coast Guard
_____	2. Non-technical FBR	B. Available through Adobe Forms program
_____	3. 4790/7B	C. Reports technical discrepancies inhibiting PMS performance.
_____	4. Urgent FBR	D. Refer to the back of the form for instruction on completing the FBR.
_____	5. CGPMS and the CMplus system	E. Involves safety of personnel and potential or actual damage to equipment.
_____	6. Form 5451	F. Covers electronic equipment loaned by the Navy
_____	7. Category B FBR	G. Used for replacement of missing or mutilated MIPs and MRCs.

Feedback

Exercise Answers

Compare your answers to the following:

Question	Answer	Reference Page
1.	F	2-2
2.	G	2-4
3.	D	2-5
4.	E	2-4
5.	A	2-2
6.	B	2-5
7.	C	2-4

Lesson 3

HOW TO DEVELOP A PMS SCHEDULE

Introduction

As the senior ET in a shop you may have to prepare or verify schedules to ensure all equipment is maintained as required. Considering workload among personnel, personnel availability, other ship's/units work, and operational schedule the accuracy of the schedules are very important.

Lesson Objectives

Given required information and forms, and using a job aid, DEVELOP a PMS schedule for all electronics equipment for at least one quarter.

Schedules

There are three schedules used to ensure equipment maintenance. A description of each is in the table below.

Schedule	Description
Cycle	Used to plan and schedule maintenance requirements to be conducted during each calendar quarter. This schedule is updated after overhaul (dry-dock) or component change
Quarterly	Displays the work center's PMS requirements to be performed during a specific 3-month period. This schedule, updated weekly, provides a ready reference to the status of PMS for each work center.
Weekly	Displays the planned maintenance scheduled for accomplishment in a given work center during a specific week. A Weekly PMS schedule is posted in each work center and used by the work center supervisor to assign and monitor the accomplishment of required PMS tasks by work center personnel.

Schedule Completion

The procedures used to complete or verify each schedule will be described in the following pages. The schedules are completed in the following order to provide information used on the next schedule.

1. Cycle board
2. Quarterly Board
3. Weekly Board

Note: The Maintenance Index Page (MIP), List of Effective Pages (LOEP), and Maintenance Requirement Cards (MRCs) for a work center will also be required.

Cycle Schedule

Introduction

Cycle PMS Schedules are used to plan and schedule maintenance requirements to be conducted during each calendar quarter. Considerable attention should be devoted to the preparation of the Cycle schedule since these efforts will directly affect long-range PMS scheduling.

Required Materials

- Blank Cycle schedules (OPNAV 4790/13 or OPNAV 4790/13A, or approved automated forms).
- The work center's portion of the PMS Master File (List of Effective Pages (LOEP)) (Report number PMS 5))
- Applicable MRCS (for general reference) from the Work Center's PMS Manual.
- OPNAVINST 4790.4 (Series) 3-M manual.

Continued on next page

Cycle Schedule (Continued)

Procedure

The basic procedure to create a Cycle schedule is:

Note: *A detailed explanation of the procedures is contained in the OPNAVINST 4790.4 (Series) in chapter 3. The boxes with numbers ("callouts") refer to sample Cycle schedule.*

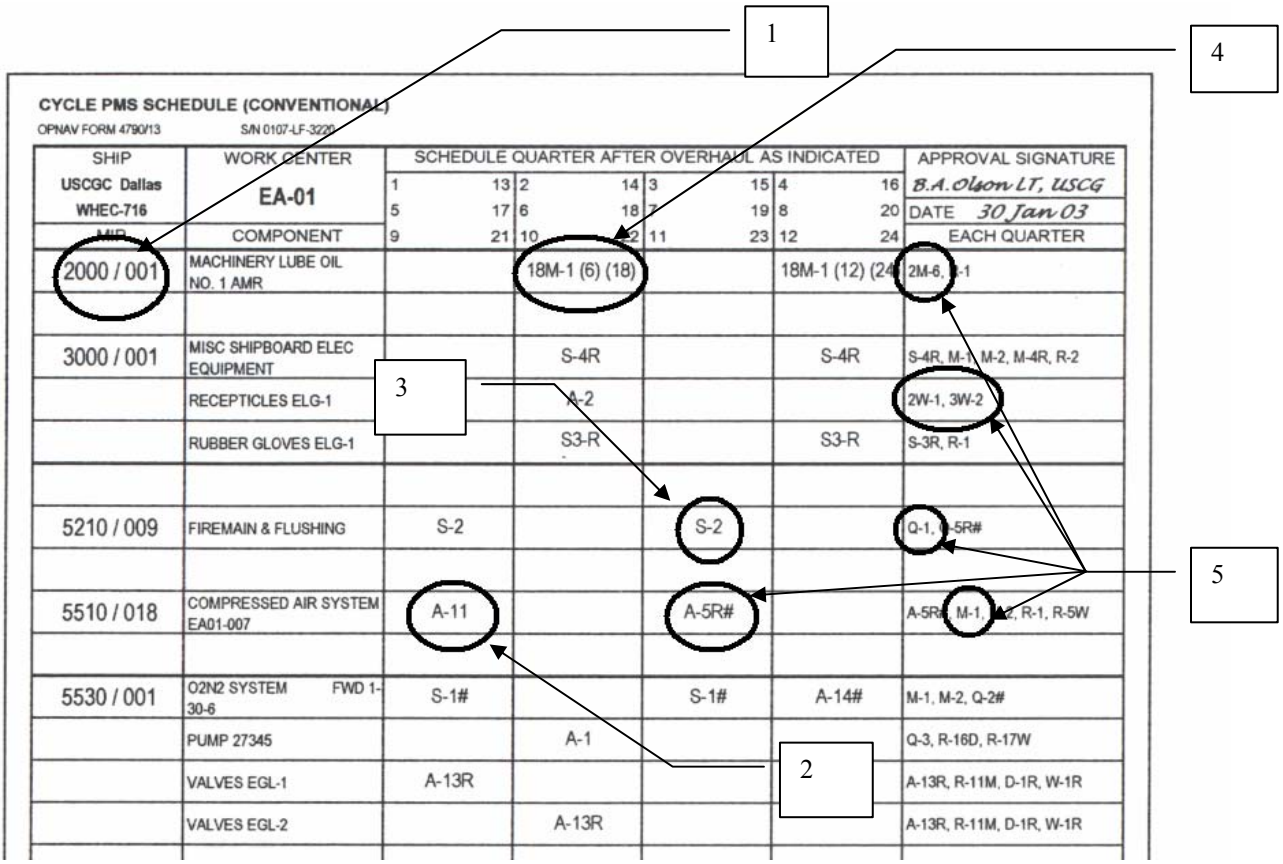
<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1</td><td>Retrieve the LOEP from work center manual.</td></tr>
<tr><td>2</td><td>Write in the ship's name and work center in the space provided on the cycle board.
(Column 1 & 2)</td></tr>
<tr><td>3</td><td>Mark the Quarter After Overhaul.
<table>
<tr><th>IF</th><th>THEN</th></tr>
<tr><td>This is the first quarter</td><td>Circle the number one
(1)</td></tr>
<tr><td>Any other quarter</td><td>1. Circle the correct quarter number.
2. X-out the previous quarter.
(X)</td></tr>
</table></td></tr>
<tr><td>4</td><td>Write down MIP number on a blank line on the cycle board. Leave a blank line between MIPS. (Callout 1)</td></tr>
<tr><td>5</td><td>Retrieve specific MIP from work center manual.</td></tr>
<tr><td>6</td><td>Schedule any annual (A) checks in the appropriate quarter column. (Callout 2)</td></tr>
<tr><td>7</td><td>Schedule any (S) checks in the appropriate quarter column. (Callout 3)</td></tr>
<tr><td>8</td><td>Schedule any (xM) checks in the appropriate quarter column. (Callout 4)</td></tr>
<tr><td>9</td><td>Write down any (Q), (2M), (M), (3W), or (2W) checks in the "Each Quarter" column on the cycle board. (Column 7)
Include any (R) checks also. (Callout 5)</td></tr>
<tr><td>10</td><td>Submit the prepared Cycle PMS Schedule to the Department Head to be reviewed, signed, and dated. (Top column 7)</td></tr>
</table>

Continued on next page

Cycle Schedule (Continued)

Sample Cycle Schedule

Refer to the sample Cycle from the USCGC Dallas WHEC-716.



CYCLE PMS SCHEDULE (CONVENTIONAL)

OPNAV FORM 4790/13 S/N 0107-LF-3220

SHIP	WORK CENTER	SCHEDULE QUARTER AFTER OVERHAUL AS INDICATED				APPROVAL SIGNATURE
USCGC Dallas WHEC-716	EA-01	1 13 5 17 9 21	2 14 6 18 10 22	3 15 7 19 11 23	4 16 8 20 12 24	B.A. Olson LT, USCG DATE 30 Jan 03
MID	COMPONENT					EACH QUARTER
2000 / 001	MACHINERY LUBE OIL NO. 1 AMR		18M-1 (6) (18)		18M-1 (12) (24)	2M-6, [illegible]-1
3000 / 001	MISC SHIPBOARD ELEC EQUIPMENT		S-4R		S-4R	S-4R, M-1, M-2, M-4R, R-2
	RECEPTICLES ELG-1		A-2			2W-1, 3W-2
	RUBBER GLOVES ELG-1		S3-R		S3-R	S-3R, R-1
5210 / 009	FIREMAIN & FLUSHING	S-2		S-2		Q-1, [illegible]-5R#
5510 / 018	COMPRESSED AIR SYSTEM EA01-007	A-11		A-5R#		A-5R, M-1, [illegible], R-1, R-5W
5530 / 001	O2N2 SYSTEM FWD 1-30-6	S-1#		S-1#	A-14#	M-1, M-2, Q-2#
	PUMP 27345		A-1			Q-3, R-16D, R-17W
	VALVES EGL-1	A-13R				A-13R, R-11M, D-1R, W-1R
	VALVES EGL-2		A-13R			A-13R, R-11M, D-1R, W-1R

Column #

1 **2** **3** **4** **5** **6** **7**

Quarterly Schedule

Introduction

The Quarterly PMS Schedule displays the work center's PMS requirements to be performed during a specific 3-month period. This schedule, updated weekly, provides a ready reference to the status of PMS for each work center. This schedule, once signed, may be changed only with department head approval.

NOTE

A new quarterly schedule is done each quarter or when affected by changes caused by an Semi-Annual Force Revision (SFR) or PMS Feedback.

Content of Quarterly PMS Schedule

To make it easier to explain and complete the Quarterly schedule will be discussed in two sections:

- Header Section
- Body Section

The header section provides space for entering the following information:

- Work center
- Year
- Quarter after overhaul
- Department head's signature
- Date prepared
- Months covered
- Underway periods

The body section provides:

- MIP column
- Thirteen weekly columns (one for each week in the quarter), which are used to schedule maintenance requirements
- Rescheduled column that is used to reschedule any MRCs into the next quarter

Continued on next page

Quarterly Schedule (Continued)

Completing the Header Section

NOTE

Callouts refer to sample Quarterly schedule.

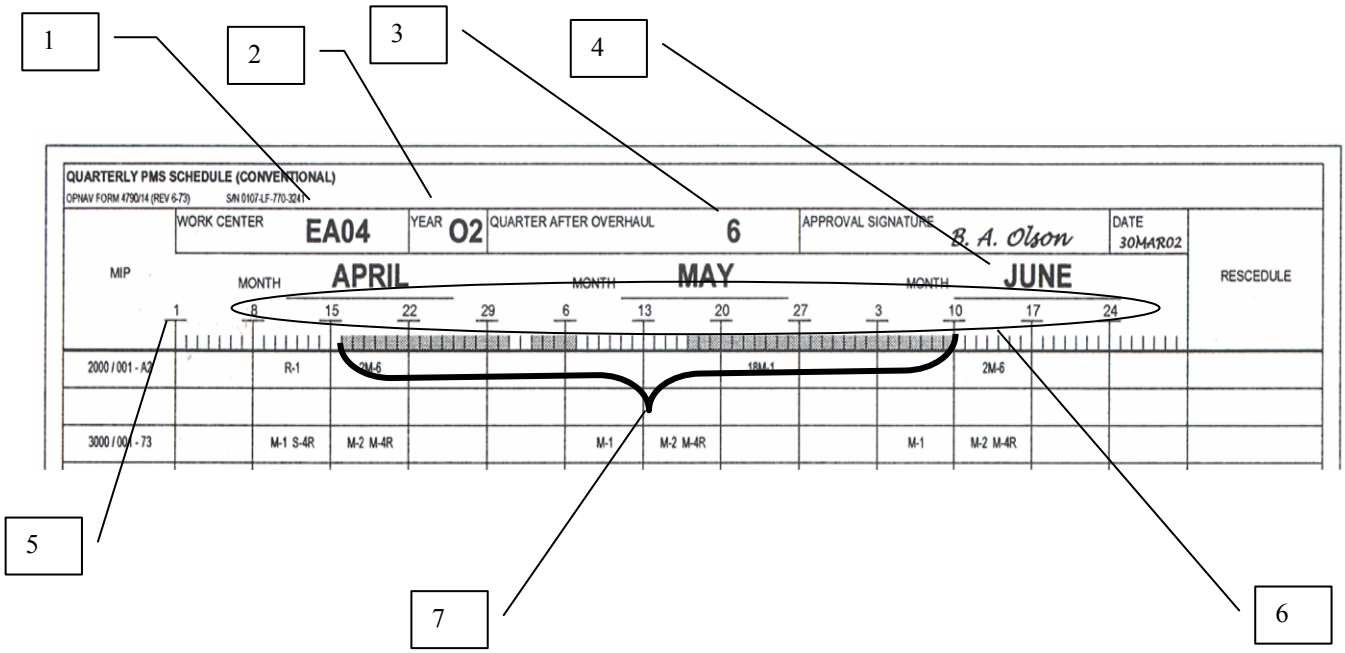
Step	Action
1	Retrieve the current work center Cycle board.
2	Obtain a blank Quarterly board.
3	Write in Work Center name. (Callout 1)
4	Write in current Year. (Callout 2)
5	Write in the correct Quarter After Overhaul from the Cycle schedule. (Callout 3)
6	Write in the name of the three months for the quarter being scheduled on the lines provided. (Callout 4) Example: April, May, and June
7	Write in the date of the first Monday of the first month of the quarter on the first raised line on the left. (Callout 5)
8	Write in the remaining Monday dates on the next twelve raised lines. (Callout 6)
9	Retrieve the cutter's schedule for the quarter being scheduled.
10	Shade in the corresponding tick marks representing days of the week, which are scheduled to be underway days for that quarter. (Callout 7)

Continued on next page

Quarterly Schedule (Continued)

Sample Header Section

The information from the sample Cycle schedule is used to complete this section.



Continued on next page

Quarterly Schedule (Continued)

Completing the Body Section

Using the information from the cycle schedule, follow this procedure.

NOTE

Callouts refer to sample Quarterly schedule.

Step	Action
1	Retrieve the current work center Cycle board.
2	Retrieve the current Quarterly schedule.
3	Write in the complete MIP number (including date code) from the cycle schedule to the Quarterly schedule. (Use the same quarter board you started with the header data.) (Callout 1) **Note:** *The MIP numbers and MRC numbers should line up line-for-line with the Cycle schedule.*
4	Select the correct Quarter After Overhaul indicated on the cycle schedule. **Note:** *For this example use the sixth quarter after overhaul.*
5	Transcribe and appropriately schedule each of the maintenance requirements (S, A, and multi-month) listed in this column to the quarterly schedule. (Callout 2)

Continued on next page

Quarterly Schedule (Continued)

Completing the Body Section (Cont'd)

Step	Action
6	Transcribe and appropriately schedule each of the maintenance requirements listed in the "Each Quarter" column, schedule only 2W, 3W, M, 2M, and Q maintenance requirements (MR). (Callout 3) **Note:** *Refer to OPNAVINST 4790.4 (Series) chapter 3 to ensure correct intervals. Refer to current quarter schedule for last completion of maintenance requirement.* *Depending on space, 1-4 checks are written in each block.*
7	Schedule any Mandatory Related maintenance (indicated by "#") with the primary check. (Callout 4)
8	Schedule any situational requirements (R checks) each time the situation arises then accomplish and document. (Callout 5)
9	Schedule any PMS requirement listed in the "Reschedule" column of the previous Quarterly PMS Schedule. **Note:** *Ensure emphasis is given to accomplishing rescheduled MRs.*
10	Submit the prepared Quarterly Schedule to the Department Head to be reviewed, signed, and dated. (Located in the header section.) (Callout 6)

Continued on next page

Quarterly Schedule (Continued)

Current Cycle Board

Use this portion of this sample cycle board to determine required maintenance requirements.

Note: *Use the sixth quarter after overhaul for the example.*

CYCLE PMS SCHEDULE (CONVENTIONAL)

OPNAV FORM 4790/13 S/N 0107-LF-3220

SHIP	WORK CENTER	SCHEDULE QUARTER AFTER OVERHAUL AS INDICATED				APPROVAL SIGNATURE
USCGC Dallas WHEC-716	EA-01	1 13	2 14	3 15	4 16	B.A. Olson LT, USCG
		5 17	6 18	7 19	8 20	DATE 30 Jan 03
MIP	COMPONENT	9 21	10 22	11 23	12 24	EACH QUARTER
2000 / 001	MACHINERY LUBE OIL NO. 1 AMR		18M-1 (6) (18)		18M-1 (12) (24)	2M-6, R-1
3000 / 001	MISC SHIPBOARD ELEC EQUIPMENT		S-4R		S-4R	S-4R, M-1, M-2, M-4R, R-2
	RECEPTICLES ELG-1		A-2			2W-1, 3W-2
	RUBBER GLOVES ELG-1		S3-R		S3-R	S-3R, R-1
5210 / 009	FIREMAIN & FLUSHING	S-2		S-2		Q-1, Q-5R#
5510 / 018	COMPRESSED AIR SYSTEM EA01-007	A-11		A-5R#		A-5R#, M-1, M-2, R-1, R-5W
5530 / 001	O2N2 SYSTEM FWD 1-30-6	S-1#		S-1#	A-14#	M-1, M-2, Q-2#
	PUMP 27345			A-1		Q-3, R-16D, R-17W
	VALVES EGL-1	A-13R				A-13R, R-11M, D-1R, W-1R
	VALVES EGL-2			A-13R		A-13R, R-11M, D-1R, W-1R

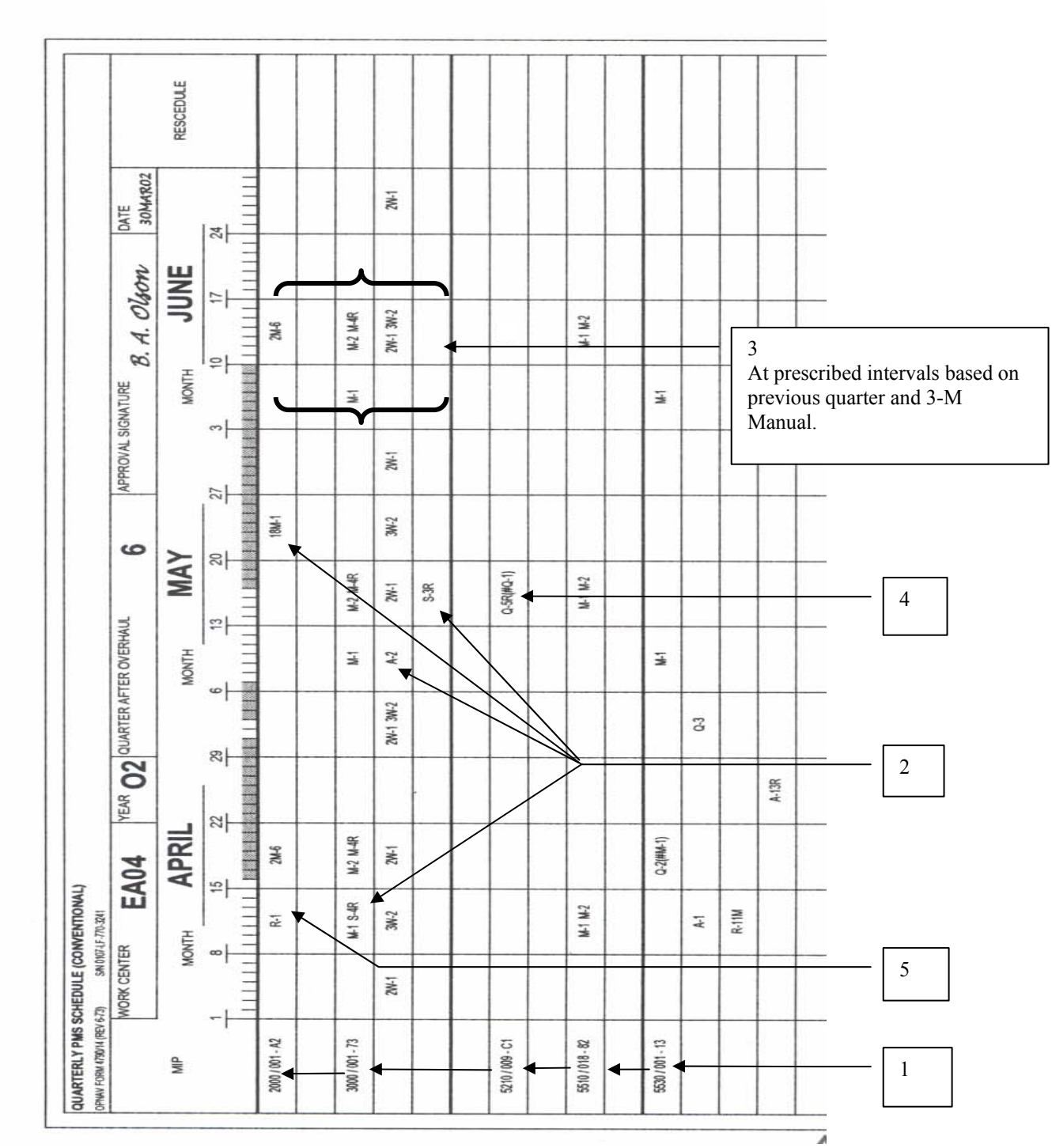
These checks are scheduled in this Quarter.

Continued on next page

Quarterly Schedule (Continued)

Sample Quarterly Schedule

Use the sixth Quarter After Overhaul information from the sample Cycle schedule in the previous section.



Weekly Schedule

Introduction

The Weekly Schedule displays the planned maintenance scheduled for accomplishment in a given work center during a specific week. A Weekly PMS Schedule is posted in each work center and used by the work center supervisor to assign and monitor the accomplishment of required PMS tasks by work center personnel.

Completing a Weekly Schedule

Using the information from the quarterly schedule, follow this procedure. The weekly schedule is laminated after scheduling of permanent information; lamination is done for convenience so a new schedule board will not have to be produced each week. Automated systems produce new weekly schedules each week. *Callouts refer to sample Weekly schedule.*

- *If producing a NEW schedule, start with step 1.*
- *If producing a successive weekly schedule start with step 9.*

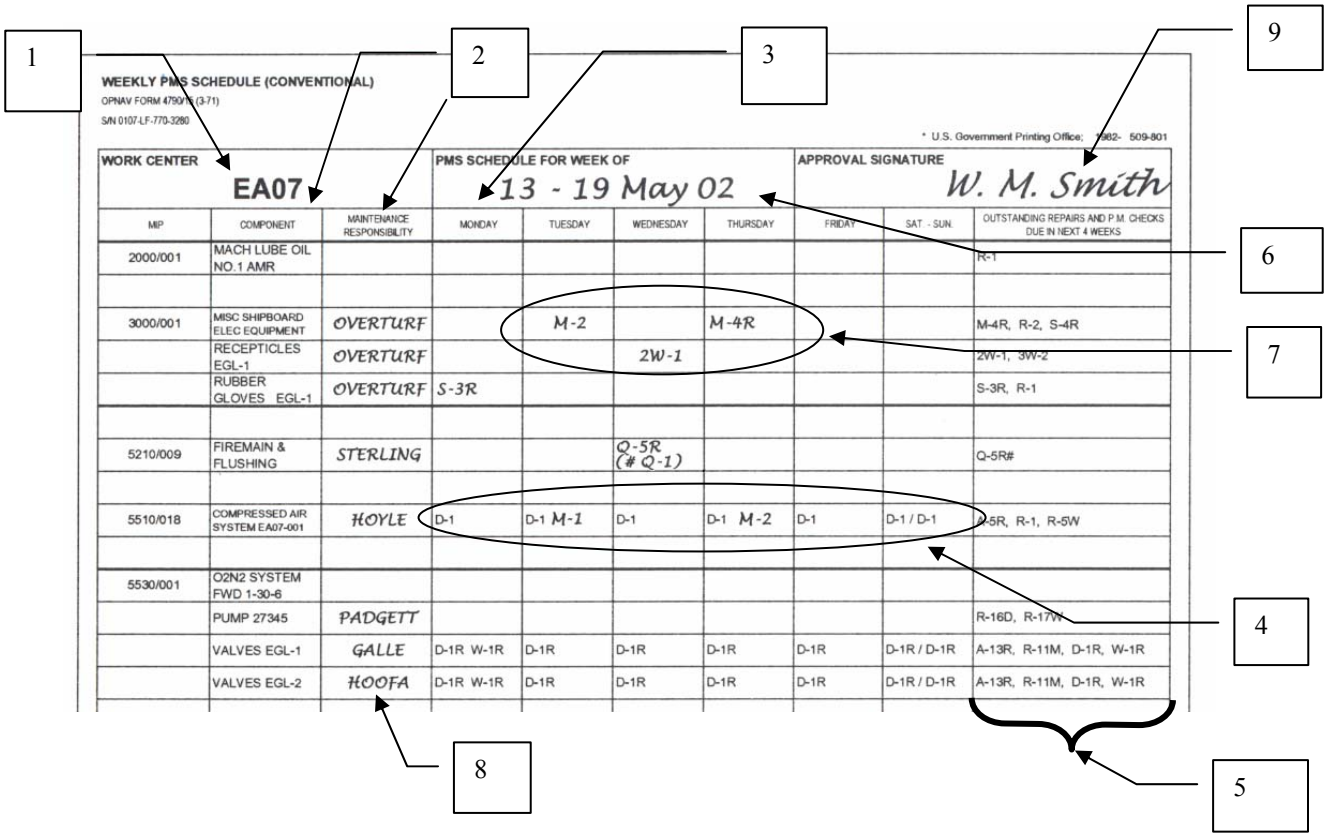
Step	Action
1	Retrieve the current Cycle and Quarter schedules.
2	Retrieve the 3-M manual and a Blank Schedule
3	Write in work center name. (Callout 1)
4	Write in MIP number and component names. *The weekly schedule will match the Cycle Schedule and Quarterly Schedule line for line.* (Callout 2)
5	List all weekly requirements in the Monday column. (Callout 3)
6	List all daily requirements in each day of the week column and twice in the "SAT-SUN" column. (Callout 4)
7	Write in All situation requirements as listed in the "Next Four Weeks" column from the Cycle schedule in the "Next 4 Weeks" column on the weekly schedule. *The 2W and 3W periodicities are also listed in the "Next 4 Weeks" column. Depending on space, 1-4 checks are written in each block.* (Callout 5)
8	Laminate or cover with plastic the schedule, so it can be cleared and updated each week. *An automated system will produce new weekly schedules each week.*
9	Write in the date range for the week being scheduled. *Refer to the calendar or the Quarter schedule.* (Callout 6)
10	Write in any scheduled MRs for the determined week from the quarter schedule. *Ensure any mandatory related maintenance is schedule on the same day as the primary MR.* (Callout 7)
11	Write in a personnel assignment for each MR. (Callout 8)
12	Submit the completed schedule to the Division officer for review and signature. (Callout 9)

Continued on next page

Weekly Schedule (Continued)

Sample Weekly Schedule

Use the week of 13-19 May from the quarterly schedule to complete the weekly schedule.



WEEKLY PMS SCHEDULE (CONVENTIONAL)
OPNAV FORM 4790/[illegible] (3-71)
S/N 0107-LF-770-3280
* U.S. Government Printing Office: 1982- 509-801

WORK CENTER	EA07		PMS SCHEDULE FOR WEEK OF	13 - 19 May 02			APPROVAL SIGNATURE	W. M. Smith	
MIP	COMPONENT	MAINTENANCE RESPONSIBILITY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT. - SUN.	OUTSTANDING REPAIRS AND P.M. CHECKS DUE IN NEXT 4 WEEKS
2000/001	MACH LUBE OIL NO.1 AMR								R-1
3000/001	MISC SHIPBOARD ELEC EQUIPMENT	OVERTURF		M-2		M-4R			M-4R, R-2, S-4R
	RECEPTICLES EGL-1	OVERTURF			2W-1				2W-1, 3W-2
	RUBBER GLOVES EGL-1	OVERTURF	S-3R						S-3R, R-1
5210/009	FIREMAIN & FLUSHING	STERLING			Q-5R (# Q-1)				Q-5R#
5510/018	COMPRESSED AIR SYSTEM EA07-001	HOYLE	D-1	D-1 M-1	D-1	D-1 M-2	D-1	D-1 / D-1	R-5R, R-1, R-5W
5530/001	O2N2 SYSTEM FWD 1-30-6								
	PUMP 27345	PADGETT							R-16D, R-17W
	VALVES EGL-1	GALLE	D-1R W-1R	D-1R	D-1R	D-1R	D-1R	D-1R / D-1R	A-13R, R-11M, D-1R, W-1R
	VALVES EGL-2	HOOFA	D-1R W-1R	D-1R	D-1R	D-1R	D-1R	D-1R / D-1R	A-13R, R-11M, D-1R, W-1R

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Practice Exercise

Introduction

This quiz is meant to check your comprehension of the material covered. Use the following LOEP, MIPs, and blank schedules to develop schedules based on the following scenario. Check your answers in the Feedback section. If you are having difficulty understanding this section, go through it again, or ask someone for help.

Exercise 1

- You are stationed aboard USCGC UNDERWAY (WHEC 7XX) assigned to work center FT01.
- Use the LOEP and MIPs provided.
- Your unit is coming out of a yard period so all new Cycle, Quarter, and Weekly schedules must be developed. (Blanks provided)
- The first quarter after overhaul will be July, August, September and the Monday dates 7, 14, 21, 28, 4, 11, 18, 25, 1, 8, 15, 22, 29.
- The current underway schedule is:
  - 15 – 18 July
  - 24 July – 6 August
  - 18 – 22 August
  - 8 – 18 September
- For this exercise, the Weekly Schedule will be based on the week of 11-17 August.
- You have and may use the OPNAVINST 4790.4 (Series) 3-M Manual.

Continued on next page

Practice Exercise (Continued)

Exercise LOEP Use this LOEP.

Date: 06/15/03	Planned Maintenance System	Page: 1
Time: 14:37:51	List of Effective Pages (PMS 5)	SFR: 1-03

Unit: WHEC 7XX UIC: R12345 Work Center: FT01 USCGC Underway

Adds/ Changes	MIP	Nomenclature
	4121/R15-12	AN/UYK-7(V) Computer Set
	4121/R40-12	OJ-172(V) UYK Input/Output Console

Continued on next page

Practice Exercise (Continued)

Exercise MIP 4121/R15-12

Maintenance Effectiveness Review (MER) Analyzed 08/17/2001

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MIP CONTROL NUMBER: 4121/R15-12 **Date:** January 2002

SHIP SYSTEM, SYSTEM, SUBSYSTEM, OR EQUIPMENT

AN/UYK-7(V)
Computer Set
4121

REFERENCE PUBLICATIONS

NAVSEA 0967-LP-011-5110,
0967-LP-024-5454
0967-LP-319-4010, 4020, 4030, 4040

CONFIGURATION

C-8408(P)
CP-1036(P)
CY-6797
MU-558
MU-642
MU-1099
MX-8450
PP-6395
TS-2940
Incorporates Surface Maintenance Effectiveness Review (SURFMER) Cycle 37

SCHEDULING AIDS

1. Review and delete MRCs not applicable to your configuration. No feedback report required.

** For scheduling purposes only; no MRC is

OTHER	MRC NO.	MAINTENANCE REQUIREMENT DESCRIPTION	PERIO-DICITY CODE	RATES	MAN HRS	RELATED MAINT
	12 FX67 N	1. Clean and inspect AN/UYK-7(V).	Q-1	ET/FC3	2.5	None
	12 FX73 N	1. Measure DC-DC converter voltages.	A-1	ET/FC3	0.6	None

INACTIVE EQUIPMENT MAINTENANCE

The following requirements will be scheduled when equipment is inactivated for periods of prolonged idleness.

Lay-Up Maintenance

1. Install protective covering.	LU-1 **>	
NOTE: Perform if industrial work is to be performed in vicinity of equipment.		

Continued on next page

Exercise MIP
4121/R40-12

Maintenance Effectiveness Review (MER) Analyzed 08/17/2001

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MIP CONTROL NUMBER: 4121/R40-12 **Date:** January 2002

SHIP SYSTEM, SYSTEM, SUBSYSTEM, OR EQUIPMENT

OJ-172(V)/UYK
Input/Output Console
4121

REFERENCE PUBLICATIONS

NAVSEA 0967-LP-011-0172
SE 640-AD-MMM-010
SE 640-AD-MMM-020
SE 640-AD-MMM-030

CONFIGURATION

Paper Tape Reader (NMR)
Paper Tape Punch (NMR)
Incorporates Surface Maintenance Effectiveness Review (SURFMER) Cycle 37

SCHEDULING AIDS

1. Review and delete MRCs not applicable to your configuration. No feedback report required.

** For scheduling purposes only; no MRC is

OTHER	MRC NO.	MAINTENANCE REQUIREMENT DESCRIPTION	PERIO-DICITY CODE	RATES	MAN HRS	RELATED MAINT
	12 FV02 N	1. Inspect and clean magnetic tape unit (MTU) guidance system.	W-1	ET/FC3	0.5	None
	12 FV10 N	1. Inspect and clean input/output console.	Q-1	ET/FC3	1.0	None
	12 FV25 N	1. Inspect, clean, and lubricate teletypewriter.	S-1	ET/FC3	1.5	None
	12 FV18 N	1. Inspect and clean magnetic tape unit (MTU).	A-1	ET/FC3	0.5	S-1
		UNSCHEDULED MAINTENANCE				
	47 FV28 U	1. Measure power supply voltages. 2. Measure time delays.	U-1			None
	47 FV19 U	**Magnetic Tape Unit (MTU)** 1. Measure power supply voltages. 2. Measure solar cell, lamp, and EOT/BOT sensor currents. 3. Measure capstan speed. 4. Measure read-write amplifier outputs. 5. Measure start-stop delays.	U-2			None

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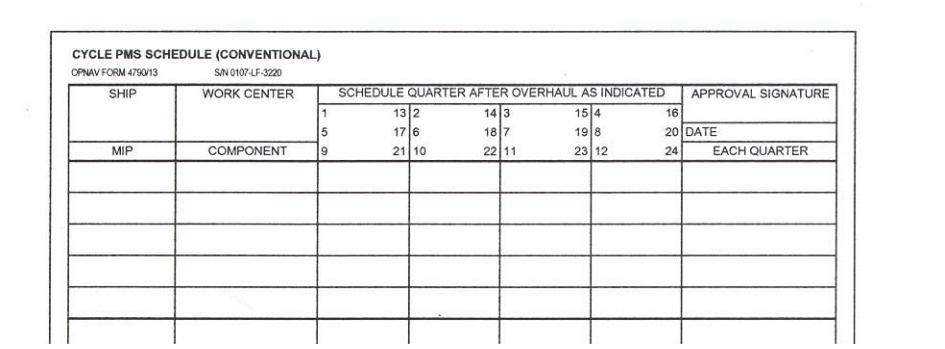
Practice Exercise (Continued)

Blank Cycle Schedule

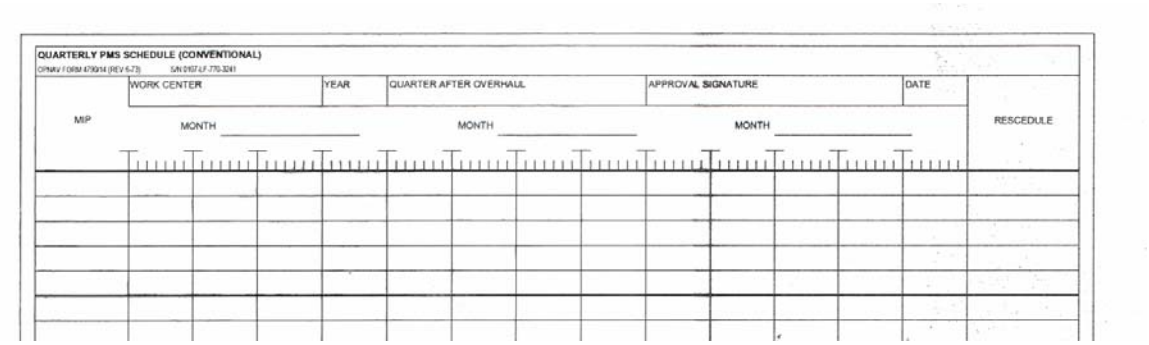


CYCLE PMS SCHEDULE (CONVENTIONAL)

OPNAV FORM 4750/13 S/N 0107-LF-3220

SHIP	WORK CENTER	SCHEDULE QUARTER AFTER OVERHAUL AS INDICATED								APPROVAL SIGNATURE
		1	13	2	14	3	15	4	16	
		5	17	6	18	7	19	8	20	DATE
MIP	COMPONENT	9	21	10	22	11	23	12	24	EACH QUARTER

Blank Quarterly Schedule



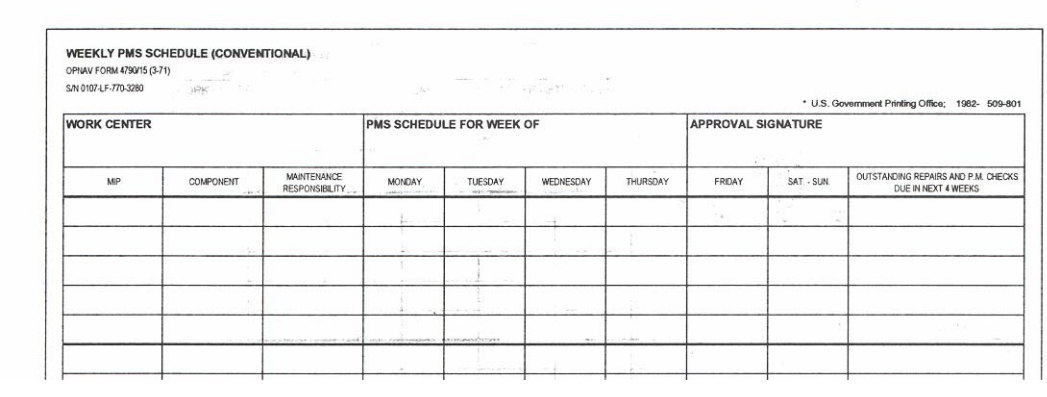
QUARTERLY PMS SCHEDULE (CONVENTIONAL)

OPNAV FORM 4790/14 (REV 6-73) S/N 0107-LF-770-3241

WORK CENTER	YEAR	QUARTER AFTER OVERHAUL	APPROVAL SIGNATURE	DATE	RESCEDULE

MIP MONTH _____ MONTH _____ MONTH _____

Blank Weekly Schedule



WEEKLY PMS SCHEDULE (CONVENTIONAL)

OPNAV FORM 4790/15 (3-71)

S/N 0107-LF-770-3280

* U.S. Government Printing Office; 1982- 509-801

WORK CENTER			PMS SCHEDULE FOR WEEK OF				APPROVAL SIGNATURE		
MIP	COMPONENT	MAINTENANCE RESPONSIBILITY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT. - SUN.	OUTSTANDING REPAIRS AND P.M. CHECKS DUE IN NEXT 4 WEEKS

Feedback

Introduction

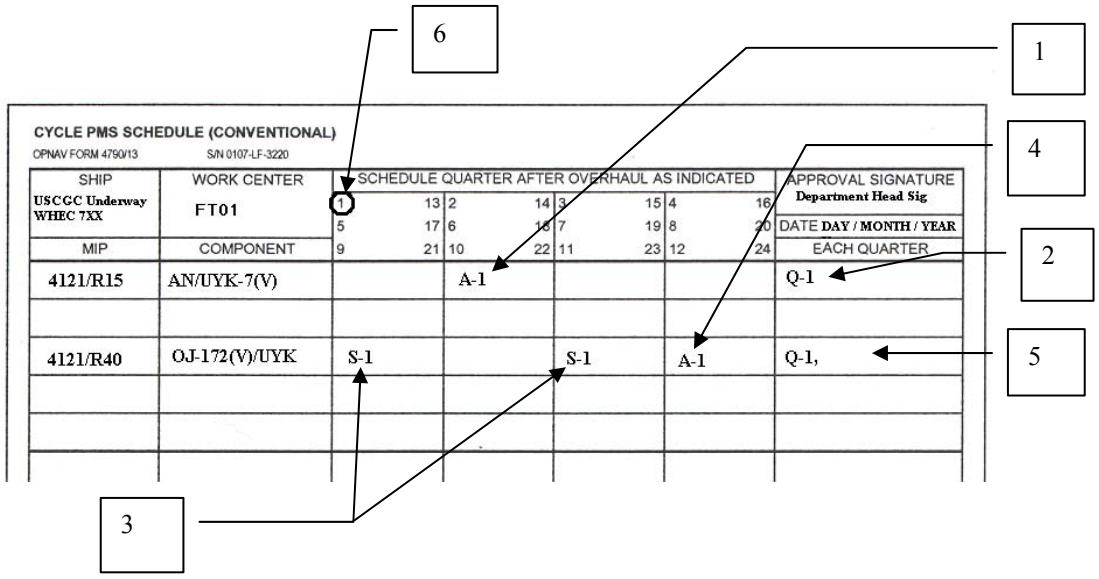
Compare your schedules to these, the maintenance requirements are placed in the middle of the authorized scheduling range.

Note: *Exact placement may vary.*

Cycle Schedule

Check points:

Item	Scheduling point
1	4121/R15 A-1 scheduled in any Quarter
2	4121/R15 Q-1 scheduled in the "Each Quarter" column
3	4121/R40 S-1 scheduled either in the 1st and 3rd or 2nd and 4th quarters
4	4121/R40 A-1 scheduled in any Quarter
5	4121/R40 Q-1 scheduled in the "Each Quarter" column
6	Circle the number 1 in Quarter After Overhaul



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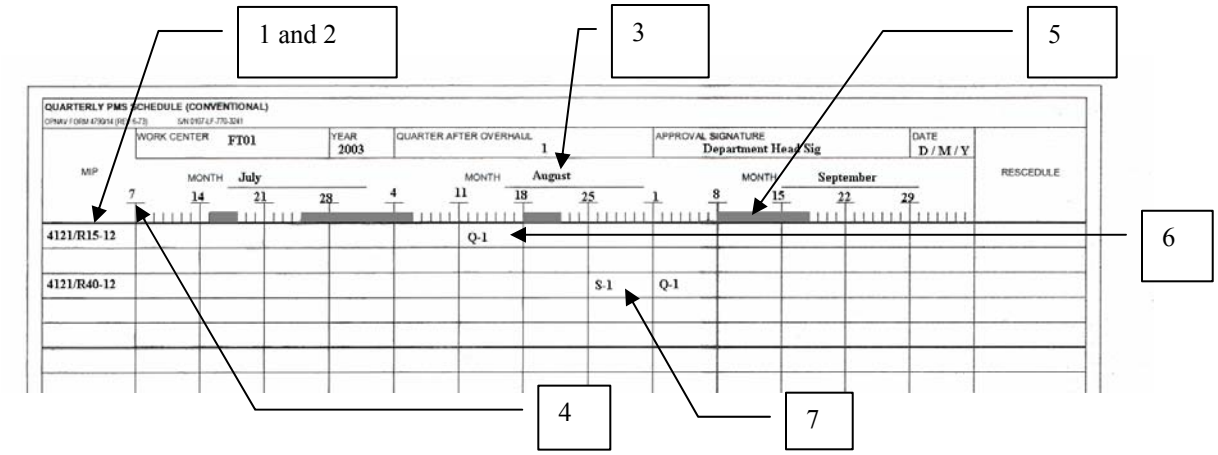
Feedback (Continued)

Quarterly Schedule

Check points:

Item	Scheduling point
1	MIPs line up with Cycle schedule lines
2	MIPs have complete code including Date Code
3	July, August, September written on month line
4	7 July is the first Monday in the quarter
5	Scheduled underway days shaded in
6	4121/R15 Q-1 scheduled any were in the quarter
7	4121/R40 S-1, Q-1 scheduled any were in the quarter



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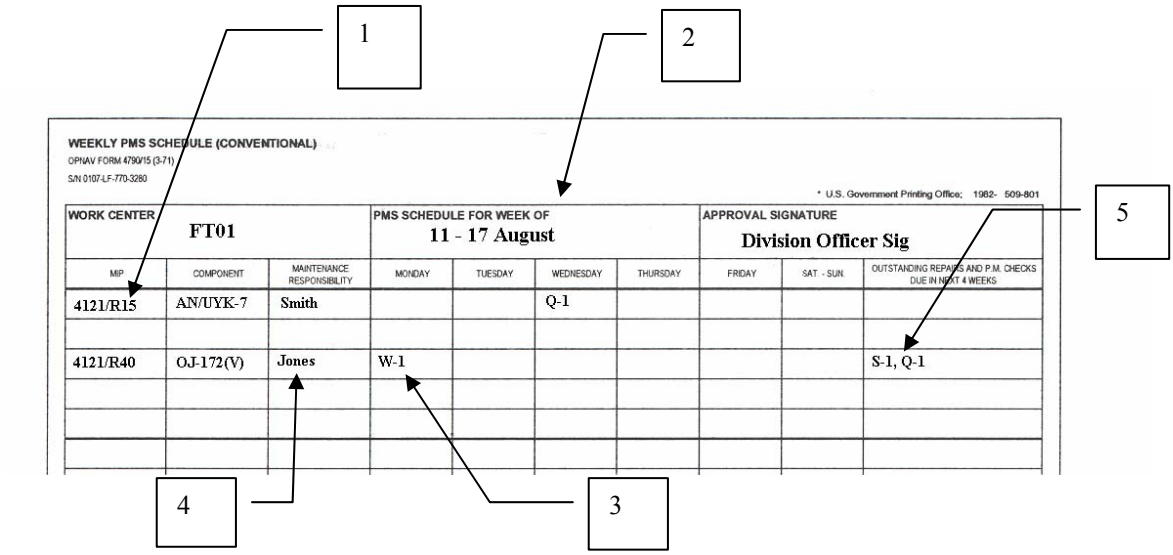
Feedback (Continued)

Weekly Schedule Check points:

Item	Scheduling point
1	MIPs line up line-for-line with the Quarter schedule
2	Scheduled maintenance is from the week of 11-17 August
3	4121/R40 W-1 is scheduled for Monday
4	All MIPs with scheduled checks have maintenance responsibility assigned
5	The "Next 4 Weeks" column reflects checks scheduled from the quarter schedule



Appendix A

PAMPHLET REVIEW QUIZ

1. What are the two types of Periodicity Codes?

2. In dealing with PMS, what does MIP stand for?

3. On a quarterly PMS schedule, what does the Header Section provide for?

4. On a quarterly PMS schedule, what does the Body Section provide for?

5. What type of schedule is used to plan and schedule maintenance requirements to be conducted during each calendar quarter?

6. What form is used to report completion (or partial completion) of alterations, maintenance actions that resulted in a configuration change, and to correct discrepancies and errors in the configuration files?

7. What type of maintenance is performed before going into a yard period where the equipment is unused and covered?

8. How many different types of feedback reports are there?

9. What type of feedback report involves safety of personnel and potential or actual damage to equipment?

10. A new quarterly schedule is done each quarter or when affected by changes caused by a/an _____ or _____.

Appendix B

PAMPHLET REVIEW QUIZ – ANSWER KEY

Question	Answer	Reference Page
1.	• Calendar (based in interval) • Non-Calendar (based on special circumstances	1-11
2.	Maintenance Index Pages	1-6
3.	• Work center • Year • Quarter after overhaul • Department head's signature • Date prepared • Months covered • Underway periods	3-5
4.	• MIP column • Thirteen weekly columns (one for each week in the quarter), which are used to schedule maintenance requirements	3-5
5.	Cycle	3-2
6.	OPNAV 4790/CK	1-13
7.	Layup maintenance	1-12
8.	Three	2-4
9.	Urgent FBR	2-4
10.	SFR or PMS Feedback	3-5

Appendix C
GLOSSARY

Coordinated Shipboard Allowance List	A listing providing information on all equipment and repair parts supported and carried aboard a unit.
COSAL	Coordinated Shipboard Allowance List
CSMP	Current Ship's Maintenance Project
Current Ship's Maintenance Project	Describes the material condition of the work center.
Index of Maintenance Procedures (IMP)	Provides a listing of MPCs assigned to a piece of equipment. **Note:** *Customized to reflect applicable maintenance actions.*
List of Effective Pages	Provides a listing of MIPs assigned to a work center.
LOEP	List of Effective Pages
Maintenance Index Page (MIP)	Provides a listing of MRCs assigned to a piece of equipment. **Note:** *Customized to reflect applicable maintenance actions.*
Maintenance Procedure Card (MPC)	Provides detailed procedures for performing maintenance requirements (CGPMS).
Maintenance Requirement Card (MRC)	Provides detailed procedures for performing maintenance requirements (Navy PMS).
MIP	Maintenance Index Page
MPC	Maintenance Procedure Card
MRC	Maintenance Requirement Card
SCLSIS	Ship's Configuration and Logistics Support Information System
Semi-Annual Force Revision	Correction to MRCs and MIPs, which are sent to all units. The changes are incorporated into the unit's PMS schedule.
SFR	Semi-Annual Force Revision
Ship's Configuration and Logistics Support Information System	Ship's configuration and logistic support information.

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Request for Feedback – ET1 UNIT 2: UNIT PMS DEVELOPMENT & MAINTENANCE

Suggestions and Corrections

Please note your suggestions, corrections, and comments below:

Page	Location on Page	What Correction is Needed

Your Comments

If you were writing this pamphlet, what improvements would you make? What was good about it? What did you not like about it? Please be specific in your comments/suggestions.

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