CHAPTER 11

ADMINISTRATION AND SUPPLY

To be an effective petty officer you must have a certain amount of administrative ability. Some of this may be natural aptitude, but much can be learned. Administrative ability is an important part of leadership. It includes the arts of organization, management, and human relations. A good administrator can grasp the overall plan, fill in details of the plan, determine his place in it, and carry out his part of it with the help of his men. A course which you have completed, *Military Requirements for Petty Officer 3 & 2*, NAVTRA 10056 discusses at some length the qualities you need to become a leader. More emphasis is placed on the planning responsibilities of the petty officer in *Military Requirements for Petty Officer 1 & C*, NAVTRA 10057. It devotes a whole chapter to administrative duties, and in related chapters discusses them in particular areas or fields. Keeping records and making reports are important parts of those duties.

This chapter deals almost entirely with the paperwork required in the performance of your administrative duties in regard to maintenance, repair, supplies to perform the maintenance and repair, reports on performance of the weapons system, reports on tests on tests made, planning of work, and recordkeeping. The automatic data equipment must have data put into it before it can do any computing. Your reports and records furnish the necessary data.

ADMINISTRATIVE REQUIREMENTS

In every chapter, something has been said about the role of the GMM 1 and GMM C as a supervisor, teacher, planner, and executive or administrator. The quals require you to "Plan, implement, and supervise;" "Coordinate and direct;" "Organize and administer;" "Implement plans;" "Prepare plans," etc. To perform adequately as a GMM 1 and GMM C, you must have wide practical and technical knowledge of the equipments used in your rate, and experience in performing the physical work involved in operation and maintenance of the launching system. This background must be teamed with the ability to see the overall picture or plan, and the ability to direct the activities of the men to achieve the objective of the plan. You have to be able to interpret directives, rules, forms, plans, and instructions, and explain then clearly to the men.

The GMM 1 and GMM C has the responsibility for many of the reports required of the weapons department. As a GMM 3 and GMM 2, you have filled out many of the simpler forms, such as those used in recording magazine inspections, maintenance performed, and other data cards. You need to check these for accuracy and completeness when your men prepare them.

The reports must be accurate and must be promptly made and promptly sent. Computers cannot come up with the correct answers if the inputs are wrong. Your reports are the input.

In addition to knowing the requirements for your launching system and the missiles, you also need to have some acquaintance with the supply system. You need to know how and where to order parts, what you can order, and what to do with the replaced parts.

Your quals require you to know the regulations concerning accountability and procurement, maintenance, stowage, and transmission of classified records, reports, and publications. Since much of the written material in your department is classified. you need to institute a

constant check on the proper keeping of the material.

Personal qualifications related to administrative ability are discussed in chapter 1 of this text and in your military requirements text.

STANDARD NAVY MAINTENANCE AND MATERIAL MANAGEMENT SYSTEM

Each shipboard Guided Missile Weapon System maintenance program is part of the Standard Navy Maintenance and Material Management (3-M) Planned Maintenance System for Surface Missile Systems (PMS/SMS). SMS documentation, in conjunction with OPNAV 43P2 (3-M) Manual and the associated equipment publications for a specific system, constitutes the basis for an effective PMS/SMS maintenance program. The ship's Weapon System publications for a type of weapon system installed aboard on a specific class ship describe the relationship of the system/equipment documentation to OPNAV 43P2 and amplify instructions for implementing shipboard management procedures in consonance with the 3-M Planned Maintenance System.

OPNAV 43P2 is the authority and basic guide governing maintenance management within the Cruiser-Destroyer Force. It provides management with information required for efficient and economical utilization of all available resources. Technical details necessary for making repairs to SMS equipments are not included in OPNAV 43P2. OPNAV 43P2 delineates those procedures required for implementation of the PMS system and the Maintenance Data Collection System (MDCS).

The 3-C system encompasses all maintenance and material functions performed on ships and aircraft of the operating forces. These functions are performed within two levels of maintenance which are defined as (1) organizational maintenance at the ship level and (2) intermediate maintenance performed in tenders, repair ships, and all repair activities ashore except for shipyards and overhaul and repair (OR) facilities. Uniform procedures and systems are applied to the following functions performed within the operating forces.

1. Maintenance planning, scheduling, and control procedures.

2. Maintenance production and material usage data reporting.

3. Supply accounting and budgetary support systems and procedures.

The primary objective of the 3-M system is to improve material readiness of the fleet through improvements in management and material functions. To attain this objective, the 3-M system employs three' basic functional subdivisions which include the Planned Maintenance Subsystem (PMS), the Maintenance and Material Data Collection Subsystem (MDCS) and the Manhour Accounting System. All of these subdivisions are explained in detail in Military Requirements For PO 3&2, NAVTRA 10056, and Military Requirements For PO 1 &C, NAVTRA 10057.

PLANNED MAINTENANCE FOR SURFACE MISSILE SYSTEMS

The PMS/SMS maintenance program was initiated by the Navy Ordnance Systems Command to improve fleet maintenance documentation for surface missile systems and for the individual equipments of these missile systems. The concept underlying PMS/SMS arose from a background of fleet operational experience with surface missile systems and the difficulties encountered in their operation and maintenance. Early attempts to alleviate these difficulties led to' the development of a daily system test designed to determine overall system operability in the normal modes of) operation. Through developmental experience with this test, it became apparent that all system functional circuits could not be checked by a single daily test. By examining functional circuits within the system, and by determining the importance of each circuit to system operation, system versus equipment level maintenance requirements could be established.

Integrated Testing

While it is recognized that improvements in hardware design can now and will in the future improve reliability and decrease down time, a

more immediate gain can be realized through improvements in testing and trouble-shooting techniques. PMS/SMS was devised to ensure optimum missile system material readiness through an integrated, test-based maintenance program. One of the key points in the PMS/SMS maintenance program is the establishment of a management plan for missile system maintenance. The required frequency of each system test, equipment test, and servicing procedure for the missile weapon system has been established. Different type surface missile ships are now able to integrate system level operational/maintenance tests with individual equipment level tests and servicing procedures.

PMS/SMS Maintenance Management

A Planned Maintenance System (PMS) is directed toward preventive, rather than corrective maintenance. PMS maintenance documentation is developed by critically examining all routine preventive maintenance tasks so as to determine actual maintenance requirements deemed necessary, who should perform the tasks, and the proper periodicity of accomplishment. When all of these questions are answered, a specific maintenance procedure is developed for a specific component of a system and placed on a Maintenance Requirement Card (MRC). MRCs prescribe minimum maintenance requirements capable of accomplishment by shipboard personnel, which will maintain equipment operation within design standards and meet established readiness criteria.

A PMS/SMS maintenance system in addition to routine preventive maintenance include system operational tests supported by fault isolation documentation and special corrective maintenance procedures. System/equipment level tests and corrective maintenance servicing procedures are found on MR cards in the same manner as for PMS. Corrective alignment/ adjustment and or repair/replacement procedures are performed only when a problem has been isolated as a result of system or equipment maintenance test failure. Within PMS/SMS, a test is defined as a standard procedure to determine if the current operational status of a specific system (equipment) function is within

the desired tolerance limitation' characteristics. When fault indications are observed during the test process, test related fault directories and or data reduction analysis procedures are used to ensure a logical follow through from the system equipment fault indication to the most appropriate troubleshooting document. The relationship of system level to equipment level documentation used in implementing an integrated maintenance program for PMS/SMS is outlined in specific technical PMS/SMS manuals.

Equipment OPs

A PMS/SMS equipment Ordnance Publication (OP) contains all the technical information pertaining to major components of a shipboard surface missile system. These publications consist of five volumes; (Volume 1) describes the major component (a launcher, a radar, a director) and explains the operating functions; (Volume 2) gives detailed instructions for performing scheduled maintenance actions; (Volume 3) provides the necessary documents for trouble isolation; (Volume 4) provides the necessary instructions for corrective maintenance actions; and (Volume 5) includes a complete indexed listing of parts for identification and replacement purposes and a list of special tools and accessories. Detailed instructions on the use of the contents in this publication are provided as necessary in the introduction of each chapter. Volume 2 and Volume 4 of most equipment OPs have been deleted from the manual structure and have been superseded by the PMS/SMS MRC cards and PMS/SMS Corrective Maintenance Card (CMC) sets. These two volumes should not be eliminated from the manual structure until adequate scheduled and corrective maintenance card coverage is instituted in shipboard launcher spaces and applicable corrective maintenance material has been installed in the group work spaces in accordance with implementation instructions contained in the SMS corrective maintenance manual. Premature destruction of these two volumes could result in inadequate documentation aboard ship for equipment maintenance, therefore launcher supervisors shall ensure that scheduled and corrective maintenance card coverage is adequate and that the

card sets are satisfactorily distributed to all launcher spaces.

System OPs

A PMS/SMS system OP describes the physical, functional, operational, and maintenance aspects of a specific Guided Missile Weapon System onboard a specific type ship. An example of a system OP is NAVORD OP 3472 (PMS/SMS) for Tartar Guided Missile Weapon System DDG 2 through 24 class ships. System OPs are used by personnel responsible for operation and maintenance of a weapon system and by personnel concerned with training personnel. System OPs have eight volumes; Volume 1 is entitled Description and Operation. Volume 2 describes general and specific safety precautions to be observed for ensuring the safety of personnel responsible for the operation and maintenance of a weapon system. Volume 3 describes the weapon system General Quarters (GQ) duty stations and recommended personnel assignments and operating procedures within these stations under normal and casualty conditions. Volume 4 contains a functional description of a weapon system with emphasis on analyses of major system functions involved in Fire Control System (FCS) assignment, target tracking, computations of missile orders, and evaluations of Daily System Operability Tests (DSOT). Volume 5 explains system PMS as applicable to a specific system ensuring an adequate frequency of system tests to verify continued satisfactory performance of the system. Volume 6 explains Weapon System Maintenance Tests, test fault directory, and other essential data to ensure effective testing and isolation of malfunctions to a specific functional area of a system. Volume 7 contains troubleshooting and alignment documentation necessary to quickly isolate malfunctions and misalignments to a particular equipment or circuit within the equipment. Appropriate descriptions and references are provided to ensure effective use of all troubleshooting and battery alignment material. Volume 8 contains System Functional Diagrams (SFDs) and sketches which functionally present the system interconnecting circuits for weapons control, fire control, missile firing and system support equipment.

MAINTENANCE LEVEL RESPONSIBILITIES

The Navy has prescribed three levels of maintenance accomplishment; (1) organizational (ship), (2) intermediate (tender/repair facilities), and (3) depot (Navy/civilian shipyards). The authority for conducting maintenance management within the respective areas of their responsibility belongs to each CO, squadron commander, and force commander. Organizational maintenance applies to maintenance functions normally performed on a day-to-day basis by an operating ship. System or equipment maintenance within each department aboard ship is generally accomplished by personnel assigned to that particular department. Organizational level work can generally be grouped into the following categories.

1. Scheduled testing
2. Preventive maintenance
3. Corrective maintenance
4. Equipment modifications through installation of applicable SHIPALTs, ORDALTS, field changes and so forth.
5. Necessary record keeping and submittal of records peculiar to organizational level maintenance.

Intermediate maintenance applies to maintenance functions normally performed by tenders. The primary purpose of the intermediate level maintenance activity is to support and supplement the work of organizational maintenance activities as follows:

1. Repair and test of components and items requiring shop/equipment facilities and/or skills not available in organizational level activities.
2. Installation of SHIPALTS and field changes beyond the capability of organizational level activities.
3. Record keeping and reporting peculiar to intermediate level maintenance.

Depot maintenance applies to the maintenance functions performed by shipyards and other shore activities (installation of ORDALTS). The technical aspects and quality of depot level

maintenance is under management control of the cognizant systems commander.

Lowest Level Maintenance

Determination of types of maintenance performed at each level is governed primarily by the availability and distribution of maintenance personnel, equipment, parts, and facilities. It is a common function to ensure that the distribution of equipment and facilities is continually reviewed for the purpose of increasing the amount of maintenance activities that can be performed at the lowest level consistent with available personnel skills and an acceptable quality of work.

PMS/SMS Tools and Documentation

In addition to the maintenance documentation previously defined, PMS/SMS also requires the use of special tools and documentation for maintenance accomplishment. These include OPNAV 43P2, OPNAV 43P1, cycle schedules, quarterly schedules, weekly schedules, maintenance requirement cards, and associated hardware. A chapter on the 3-M system is contained in Military Requirements for PO 3&2 (NAVTRA 10056-C) and discusses the principal components of the system and illustrates the various forms required for carrying out and recording maintenance actions. Complete details of the entire 3-M system are contained in the 3-M manual, OPNAV 43P2.

Work Center Manual

The work center manual (43P1) is that portion of the master PMS manual (43P2) which contain the Maintenance Index Pages (MIPs) applicable to a specific maintenance group. It is designed to provide ready reference within the maintenance group and is used by the maintenance group supervisor in preparing his weekly schedule.

Scheduling Maintenance

Each ship has a long range schedule which includes all the maintenance work to be done between overhauls. It is displayed on a schedule display board, and consists of the Cycle Schedule and two quarterly schedule forms (the current quarter and the succeeding quarter). Maintenance requirements are scheduled by weeks and are determined from the Cycle Schedule. There are spaces for each maintenance group (gunnery, etc.). The quarterly schedule is prepared by the department head, the division officers, and the maintenance group supervisors. The latter prepares the weekly schedule from it, in which he assigns specific jobs to personnel by name. The weekly schedule is posted in the work area of the maintenance group. The printed form, OPNAV Form 4700-6, is made of plastic and is written on with a pencil. It is cleaned with a soft rubber eraser and is used over and over.

The numbers in the daily columns are the maintenance requirement numbers that appear at the top of the maintenance requirement cards. The man who is assigned to do the work pulls the MRCs from the set as he needs them to perform each job. As each job is finished, he places an X on the weekly schedule after the number of the completed job. Any work that is not completed at the end of the week is circled and is rescheduled for the next week or another time. The petty officer who is the maintenance group supervisor reschedules all the circled items. He also fills in the column on "Outstanding repairs," in which he explains why some work was not or could not. be completed. Possible reasons are lack of qualified men, shortage of repair parts, etc. At the end of each week he also updates the quarterly schedule by marking on it the jobs that were completed during the week, and circling those that were not completed. At the end of the quarter, the quarterly schedule is filed in the maintenance records. Your officer prepares the quarterly schedules from the cycle schedule and the Planned Maintenance Subsystem Manual, and you assist him. The schedules are posted (quarterly schedule and subsequent quarterly schedule); and unfinished jobs are transferred to the schedule for the subsequent quarter. The PO also supervises, assists, and teaches the men as they do the maintenance work; and he checks the completed work. Do not "gun deck," the records, and do not give your O.K. to unacceptable work.

SHIP ARMAMENT INVENTORY LIST

The Ship Armament Inventory List (SAIL) is a reporting system which furnishes NAVORD and all commands concerned with a master armament configuration listing of installed shipboard nonexpendable ordnance equipment together with pertinent Ordnance Alterations (ORDALTS) status. SAIL is produced on data processing equipment and includes the ordnance equipment listed in the Ordnance Systems Patterns portion of Index of Alterations to Ordnance Equipment (ORDALT OO). The SAIL program supersedes the formerly used Ordnance Inventory/Ordalt Status Listing, which it greatly resembles.

Each ship has on board two copies of SAIL supplies by NAVORDSYSCOM. A sample copy of SAIL is shown in figure 11-1. Prior to a scheduled overhaul availability, this list should ~ be reviewed and all changes in armament and ORDALT completion status that have taken place since the last printing of the listing should be annotated on one copy of the list. This corrected copy should be marked "PRIOR TO OVERHAUL REPORT" and submitted to reach NAVORDSYSCOM (ORD 041B3) on the first of that month 7 months prior to a scheduled yard overhaul. After submitting these corrections, NO corrections to the SAIL should be forwarded until completion of the yard availability. Complete instructions for correctly annotating SAIL can be found in NAVORD INST 8000.1.

SAIL Distribution.

a. The Naval Ordnance Systems Command normally will distribute copies of SAIL to:

Naval Shipyard/SUPSHIPS/INDMAN (as appropriate)
Ship/Station/Command
ESO
SPCC
NAVWPNSERVO
Type commander
NAVPLANTREP
NSMSES (SMS ships only)
NUWRES (ASW ships only)

b. The SAILS distribution schedule will be as follows:

EVENT

Event	Timing
Construction/ Conversion construction/	12 months prior end-of
	conversion
End of conversion/ fitting-out	
Regular Overhaul (ROH)	6 months prior to commencement 2 months after completion
Post Shakedown Availability (PSA)	2 months after completion
Significant Change	2 months after receipt of report

Within 10 days following completion of shipyard overhaul, the ship shall annotate the SAIL to indicate all corrections, additions, and deletions, mark the report "OVERHAUL COMPLETION REPORT", and forward one copy to NAVORDSYSCOM. Upon receipt of this verified and corrected copy, NAVORDSYSCOM processes the corrections, and a new revised SAIL is distributed as indicated above.

Any changes in reportable ordnance equipment installed aboard, or the accomplished of an ORDALT which takes place at times other than as specified above, should be reported when occurring using Ship Armament Inventory List (SAIL) Change Report, NAVORD Form 8000/2 figure 11-2. This report is required because NOSC NAVORDSYSTEM must have, at all times, an up-to-date listing of inventory and ORDALT status for each ship. No revised SAILS ate produced, except as provided above, unless NAVORDSYSCOM considers that the changes are of such significance as to render the latest SAIL obsolete.

For purpose of current reference, ships and activities should keep their latest copy of SAIL marked up to date and destroy the previous one.

OAR PROGRAM

The ORDALT Accomplishment Requirement (OAR) is a list issued by NAVORDSYSCOM on NAVORD Form 8000/3 (figure 11-3) about 6

LSR / EXPANDED SAIL
LOGISTICS SUPPORT REQUIREMENTS (CATALOG NO 0D0040)
VESSEL NAME: KNOX   SQDRN/DIV: 112

REASON FOR ISSUE: SPECIAL REQUEST   TYCOM: COMCRUDESPAC   TYPE/HULL: DE   1052   CIP: 1052   UIC: 54047

AVAILABILITY DATE: 10/08/69 TO 01/18/70   O/H YARD: LBECH   REPORT DATE: 09/10/70   NAVSHIP TYPE DESK 423

CAN	SYS/EQ NOMENCLATURE	CODE	MARK	MOD	SERIAL P LOC	EIC	APL	LD/SK	DWG NO	FSN	ORDALT DATA NUMBR	R C S K	COMPL DATE
870													
880	TELESCOPE	8185	100	1	51	G11K700	49401989				5888	00 %	70-07
880										4N1240593704L	3867	00 %	69-02
900	DYNAMIC TESTER	2595	2	3	54	G1R3000	49402528	2324050					
910	ERROR RECORDER	3095	7	1	192	G1RA000	49402010	LC412565					
920	TEST SET	8195	346	3	147		49402717		2438177				
930		612	14	6	02-01								
930											6653	00 P	70-02
930											6654	00 P	70-02
930										2A4925134772B	6791	00 P	
930											7024	00 P	69-03
930											7063	00 P	69-03
930											7115	00 P	
930										2A12901685649	7200	00 P	
1000	MISC FIRE CONTROL EQ	678	-	-	-								
1010	BEARING/RANGE INDICA	1645	7	4	165	JY41000	49402156	LD272568					
1020	DUMMY DIRECTOR	2585	3	8	132		49400532	LD281226					
1030	ERROR RECORDER	3095	6	5	173		49401604						
1040	INDICATOR PANEL	4925	5	29	653								

PAGE
6

TOTALS: SYSTEMS: 10   EQUIP: 69   ORDALTS: 125   COMPLETE: 96   INCOMPLETE: 29   ITEMS: 204

Figure 11-1.—Ship Armament Inventory List (SAIL).

63.12

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CHANGE REPORT										

SHIP ARMAMENT INVENTORY LIST (SAIL)
NAVORD FORM 8000/2 (8-67)
0105 380 0120   *See instructions on reverse side before completing this form.*

REPORT SYMBOL NAVORD 8000-1

SHIP AND HULL NO. OR SHORE ACTIVITY SNDL CODE

USS Waddell (DDG 24)

NOMENCLATURE	MK	MOD	SERIAL	ORDALT	STATUS COMPLETE	STATUS NOT COMPLETE	DELETE	ADD	CHANGE	ACN REFERENCE
M/s LcHng Sy Co	13	0	1200	5508	✓					0080

The above changes to Ship Armament Inventory List have been properly recorded on equipment nameplates and ORDALT plates and on Ordnance History Cards.	SIGNATURE AND RANK OF REPORTING OFFICER *G. G. Flynn Lt. (USN)*	DATE REPORT SUBMITTED *11-5-7—*

Figure 11-2.—SAIL Change Report, NAVORD Form 8000/2.

180.121

months prior to overhaul of a ship. It lists all outstanding ORDALTS for the ship is order of priority of accomplishment and shows the estimated man-hours for accomplishment of each ORDALT, and the total estimated cost for the ship. The ship receives one copy, which must be given a thorough review and a report then submitted within two weeks to NAVORD NAVSHIP the overhauling activity, and SPCC. This report must list all the ORDALTS completed after the "Prior to Overhaul" SAIL was submitted, all ORDALTS that should be on the OAR list but are not, all ORDALTS that are on the OAR list, but are not applicable, and a list of all applicable ORDALT material on board. Upon receipt of this report, and appropriate offices will amend the OAR, requisition material, and plan to accomplish as much of the required ORDALT work as is possible within the limitations of time and available funds.

Further details on OAR can be found in NAVORD INST 8000.2 and 8000.6.

SHIPYARD AND TENDER AVAILABILITY

The preceding chapter described the weapon system CSMP. The petty officers of the division prepare and maintain the records so they are ready for the engineering department and the commanding officer when they prepare the work requests for the whole ship and submit them for review for yard or tender availability. Within ten days after completion of overhaul, the shipyard, or overhauling activity, submits a report to NAVORD and NAVSHIP of the ORDALTS they have accomplished and the total cost. A revised SAIL, reflecting this report and the ship's annotated SAIL "OVERHAUL COMPLETION REPORT", is then issued by NAVORD and sent to the ship.

O A R — ORDALT ACCOMPLISHMENT REQUIREMENT

OVERHAUL OR BUILDING YARD	OVERHAUL OR COMPLETION DATE	TYPE COMMANDER	VESSEL NAME OR ACTIVITY	TYPE	HULL #
BOSTON	6-15-65	CRUDESLANT	DEWEY	DLG	14

ITEM	ORDALT	SHIPALT	SYSTEM NOMENCLATURE	MARK	MOD	SERIAL	EQUIPMENT NOMENCLATURE	MARK	MOD	SERIAL	ESTIMATED CONTRACT SERVICE ENGINEER MAN HOURS	ESTIMATED INDUSTRIAL ACTIVITY MAN HOURS	EXPENDED INDUSTRIAL ACTIVITY MAN HOURS
1	5233		Guided Missile Launching System	10	0-6	23	Dud Jettison Interlock	108	0	14		10	

APPROPRIATION	APPROVED FUNDS	ORIGINALLY PREPARED	REVISED DATE	PAGE	TOTALS — MAN HOURS	TOTALS — DOLLARS
61192/6823/64	4475	7/63			10	4475

63.13

Figure 11-3.—OrdAlt Accomplishment Requirement (OAR), NAVORD Form 8000/3.

The records must be as complete and up to date as you can make them. If you forget to record an item that needs to be repaired at a navy yard, there won't be another chance for 2 years or more. However, essential repairs, that is, repairs necessary for the safe and reliable operation of the ship to carry out her military mission, will be taken care of.

Work Requests

Each division must write up its work requests in time to be included in the ship's repair or overhaul requests. The petty officers in each division are most familiar with the repair, alteration, and overhaul needs and therefore are the logical ones to prepare the requests. It may not be possible to include all your requests in the ship's scheduled repair and overhaul time, or your request may be returned with the notation that you and you men should perform the work aboard ship.

OPNAV Form 4790/2K (Work Request Form) is used to request assistance to complete a maintenance action. Work requests are prepared from the information contained on the shipboard copy of a deferred action form which makes up the department CSMP. Procedures for preparing internal Work Requests are outlined in the 3-M Manual, OPNAV 43P2. Appropriate blocks on four sheets of form 4790/2K are filled in, to record the need for outside assistance.

Variations, however, from this standard number of copies may be required by certain repair activities. OPNAV Form 4790/2K is a single sheet, multipurpose form printed on NCR (no carbon required) paper. The 4790/2K is used to report certain completed maintenance actions, deferred maintenance actions and the requirement for maintenance assistance (Work Request). Form 4790/2K differs only in the required information appropriate for each type of maintenance action. Each maintenance action requires a different type of maintenance action code system to be recorded in data element block on form 4790/2K. Special instructions for documentation of 4790/2K are contained in 43P2. Three Maintenance Action blocks (Comp, Defer, Work Req) located in the upper right corner of 4790/2K, are used to designate the purpose of the form.

Supplemental Form 4790/2L

OPNAV Form 4790/2L provides a supplemental form for voluntary submission of maintenance-related comments, questions or information which cannot be accommodated by the 4790/2K. If drawings or sketches are required for a work request, form 4790/2L is used to record the required drawings and sketches and all other additional data about blueprints, technical manuals, plans, etc., required to accomplish the work request. When using 4790/2L for overflow information about a work request, be sure to check appropriate continuation sheet block and that the ship's job control number is the same as the one used on the work request form 4790/2K. Form 4790/2L is also used as a DMCS feedback form for voluntary submission of maintenance-related information. Voluntary submittal of maintainer's observations and remarks is encouraged. Those who are willing to take the time and trouble to document such information can provide valuable assistance to the commands responsible for more effective support of fleet equipment.

The information furnished on 4790/2L might assist technical, supply, or other support personnel in understanding or evaluating a maintenance problem related to a routine maintenance action. Such information may be submitted in the form of sketches, narrative comment above

previous maintenance experiences, or about operational circumstances surrounding a required maintenance action or a previously reported equipment failure. Form 4790/2L is also used as a MDCS feedback form for reporting certain special maintenance data. The mandatory use of 4790/2L will be initiated only after review and approval of a special maintenance plan by the Chief of Naval Material. Form 4790/2L is fully described and discussed in the 3-M Manual 43P2.

Technical Assistance

Assistance for field services may be obtained when technical difficulties are beyond the repair capabilities of a ship. Certain field activities of the Navy have technical personnel assigned to them and some Service Forces have system engineering specialists assigned directly to Force Commanders. These engineers are specialists in particular equipments which makes their availability limited. Emergency request for technical assistance may be made by message or telephone to the nearest activity having a specialist but a written request for assistance must follow. Maintenance assistance received from MOTU, Tech Rep or NOSSO contact personnel or other activity which does not normally require documentation of maintenance actions will be documented on a single sheet of form 4790/2K and submitted as a work request. The document is originated by the requesting work center in accordance with procedures outlined in OPNAV 43P2.

The objective of NAVORDSYSCOM is to ensure that all ordnance units attain the maximum degree of self reliance in operation, utilization, and maintenance. Special assistance is provided to fleet personnel who serve these objectives by providing special assistance through different levels of maintenance assistance by Contact Service Engineers (Tech Rep), Mobile Technical Units (MOTUS) and Naval Ordnance System Support Office (NAVORDSYSUPPOs).

Contact Service Engineers are specially trained contractor engineers and technicians trained to handle specific equipments. These personnel are available on an "as required" basis either by special assignment to activities or service commands, or by a specific request to NAVORDSYSCOM. Special Ordnance and Type

Commander (TYCOM) instructions are issued periodically to cover these services.

Mobile Technical Units (MOTUs) are specifically selected and trained groups of military personnel assigned to and made available by Commander Service Force Pacific and his counterpart, Service Force Atlantic. These groups normally are made available for assistance in the maintenance of newly installed equipment, but may be called upon in an emergency. There are other forms of external assistance given to ships when requested, such as contractor representative personnel assigned by NOSSO for special projects.

Once the assistance has been rendered, or it has been found that the equipment cannot be repaired or deficiencies in its operation can not be eliminated without extensive work and time, a maintenance action report (4790/2K) is prepared and used by the ship as a reference to prepare job requests when the ship is assigned an upkeep or yard availability. Requests for technical assistance during regular overhaul to augment the technical capability of an activity will be specifically directed to NAVORDSYSUPPO Atlantic or Pacific in accordance with NAVORD INST 4350.4. In the event of an emergency request, the appropriate NAVORDSYSUPPO will be advised, by telephone or message, of the scope and nature of the request. Listed below are the major services provided by NOSSO organizations.

1. Liaison, single point of contact for ordnance
2. Fleet support engineering
3. Tech assists (MOTU Backup)
4. Pre-deployment reviews (PDR)
5. Configuration (Verifications and up date)
6. Special assist teams

a. Technical (system and or equipment)
b. Torpedo
c. Logistics
d. Test equipment
e. Publications (tech data and documentation)
7. Ordnance technical training support
8. Tests and trails on new construction/modernized surface ships.

ASSISTANCE TEAMS

Navy Ship Missile System Engineering Station (NSMSES) provides a program of timely and competent assistance to the commanding officer of each guided missile ship in achievement of a stable level of weapon system operational readiness on a continuing basis. The Ship Qualification Trials (SQT) are conducted in order that surface missile/UNREP systems may be adequately checked out and proofed after completion of new construction, conversion, or overhaul and prior to overseas deployment. A Ships Qualification Assistance Team (SQAT) is provided by NSMSES to assist a ship's crew in achieving or demonstrating a set of program objectives for a given surface missile/UNREP system during a SQT period. A SQAT team will normally report to the ship's commanding officer after completion of fitting-out of new construction and upon completion of conversion/overhaul for other ships. The primary objective of SQAT is to demonstrate weapon system performance as operated and maintained by ship's personnel. Assistance is provided to each ship in direct support of this objective as follows:

(1) A test program to demonstrate, on a step-by-step basis, the operability and capability of the weapon system(s) in the at-sea environment and the competence of the ship's force to maintain and operate them.

(2) A team to assist and instruct the ship's force in the conduct of the test program. The conduct of system maintenance tests, including the Daily System Operability Test (DSOT) must conform to the PMS/SMS discipline.

(3) Training materials, documentation, logistic support and special technical assistance required in support of the test program.

During a SQT period the leading GMM of a system has the responsibility of following all of the training requirements provided by a SQAT team. He also helps in the identification of system problems and the collection of technical information required for corrective action. NSMESESINST 8820.1 B lists the sequence of events for an orderly accomplishment of the

SQT program and indicates action responsibility for each event. The listed objectives of the SQT program may be varied as required to meet the constraints imposed by each ship's material, personnel, logistics, and operational situation.

Prior to a SQT period each GMM 1 in charge of a missile launcher should look over the checklist contained in 8820.1 B for the SQT program to ensure that all maintenance and training requirements have been accomplished. One of the maintenance management requirements for SQT is to ensure that each launcher has an updated MRC deck and if not, a Feedback Report (OPNAV 4790/7A) has been submitted. The SQT period for each ship is scheduled by the ship's operational commander and terminates upon satisfactory completion of a SQT program. A Modified Ships Qualification Trial (MSQT) or a SQT is conducted on a yearly basis and schedule arrangements are made between NSMSES and the operational commander prior to overseas deployment if no conversion or overhaul maintenance has been conducted within a yearly period.

FEEDBACK REPORT

The Planned Maintenance Subsystem (PMS) feedback report is utilized to submit recommended modifications and revisions to PMS documentation and to request certain additional or replacement software and hardware. In addition, PMS feedback form OPNAV 4790/7 A may be used to suggest changes to technical manuals and to report or inquire about other matters in connection with PMS. This form provides a direct line of communication, via TYCOM, between the maintenance man and the Navy Material Command. When using this form, check the appropriate box in the discrepancy section and write out a description of the discrepancy, giving as much detail as possible. Instructions for making out the form are found in 3-M Manual, OPNAV 43P2.

RECORDS OF MATERIAL USAGE AND JOB DATA

In addition to the maintenance action information collected on the OPNAV Forms 4790/2K and 4790/2L, the MDCS requires

certain specific information pertaining to the availability and usage of parts and material. This information is collected on two basic Supply System documents, NAVSUP Form 1250 and DD Form 1348, which are completed as appropriate for each maintenance action.

Accurate documentation of material usage and cost data on various maintenance transactions requires the joint effort of maintenance and supply personnel. The maintenance man will initiate documentation for transactions involving requests for material from supply, returning material to supply and reporting "usage only" for items obtain outside the normal supply channels. The Single Line Item Requisition System Document, DD Form 1348, will be used by ships having mechanical (automated) supply records or nonmechanized ships which use DD 1348 as an internal issue document. In nonmechanized ships the Single Line Item Consumption/Management Document, NAVSUP Form 1250 is used. These forms will be completed by supply department personnel from information provided by maintenance personnel either verbally or in skeletonized format on the applicable document.

Supply personnel are expected to assist maintenance personnel whenever difficult or unusual documentation problems arise. The same applies to issues of materials which do not directly involve a maintenance action (minor consumables) and are not reported in the MDC system. These forms are explained and illustrated in Military Requirements for PO 3&2, NAVTRA 10056.

SUPPLIES FOR MAINTENANCE AND REPAIR

The fact that there are supplies on your own ship and on tender/repair ships has been mentioned several times. Here we will give a run-down on the supply system, beginning with top agency.

RESPONSIBILITY OF THE GMM

You have dealt with supplies in one capacity or another since you first joined the Navy. As you advance in your rating, you will take a more

active part in assisting your division officer and the supply officer in estimating material needs and planning for replenishment. A review of the supply chapter in *Military Requirements for Petty Officer 3 & 2*, NAVTRA 10056 and study of the supply chapter in *Military Requirements for Petty Officer 1 & C*, NAVTRA 10057, should be helpful. A word of caution is in order here. The spread of automation in many phases of supply, the consolidation of all armed forces supply systems into one Defense Supply Agency (DSA), and cost reduction programs all work together to cause rapid changes in the supply system. Members of the supply department can help you keep abreast of the changes as they affect you. Navy Training Courses are revised every two or three years, but the supply system changes cannot wait that long; the supply department receives the directives on the changes as they occur.

SOURCES OF SUPPLY

The original source of supply is of course the manufacturer of the item, but you seldom have direct contact with the original source. Supplies are purchased in huge quantities and stockpiled at various locations where they will be more readily available to the ultimate users.

Defense Supply Agency (DSA)

The consolidation of supply and service functions between and amount the military departments was begun several years ago. The DSA acts as the centralized policy making and monitoring agency sitting on top of the whole single manager concept. It has been assigned management and operational control of a number of defense supply agencies and centers. Supply agencies will be transferred to DSA as the consolidation is carried forward.

DSA publications and directives, under the overall policies of the Secretary of Defense, provide information and direction to all defense agencies that receive support from, or supply support to DSA. These publications include catalogs, stock lists, price lists, manuals, handbooks, and information bulletins. The numbering system, along with other information on these publications, is given in SECNAVINST 5215.13A.

Having one supply system for all defense agencies is expected to save the government many millions of dollars each year. As a taxpayer, that should interest you. As a PO you have a part in implementing the system. Learn enough about it so you can order supplies intelligently. Every incorrect or ambiguous order causes extra correspondence, incorrect shipments, aggravating delays, confusion, and annoyance; and it piles up costs. Ever more important, repair of weapons and weapon components is delayed, which could be critical.

Ship's Parts Control Center

The statement that all supply activities are consolidated under DSA does not mean that all supply depots except one are being abolished. Supplies must be located in a number of areas so they are available quickly. This is a matter of logistics. Logistics is the art of having what you need, where and when you need it. It is the function of the overall supply system which supports the using activity with the necessary equipment and parts.

The supply of ordnance material is coordinated through the Ship's Parts Control Center (SPCC), Mechanicsburg, Pa. This office is operated under management control of NAVSUP. The Electronics Supply Office (ESO), Great Lakes, Illinois, is the inventory control point for electronic materials. SPCC and ESO are responsible for control inventories, procurement, and distribution. They also maintain records, catalogs (NAVORD lists), and stock levels, and regulate the flow of material throughout the Navy distribution system, but do not maintain stocks of repair parts and equipments. The limited application of guided missiles and related test and handling equipment does not justify the positioning of spare parts throughout the distributive system to the same extent as other ordnance material. For the same reason, range and depth of guided missile material has generally been restricted to cover specific program requirements.

At the present time, there has been no obligation established for "Not-carried" items, and such demands are to be forwarded to the Ship's Parts Control Center, Mechanicsburg, Pa.

Inventory Control Points

NAVORD material cognizance assignments are reviewed each year and cognizance of standardized items is transferred to Inventory Control Points (ICPs) by the Stock Coordination Review Group. The Aviation Supply Office (ASO) has cognizance of "2V" material; the Electronics Supply Office (ESO) has control of electronics equipments for the Navy.

Guided Missile Material Responsibility

The Naval Ordnance Systems Command has primary responsibilities for guided missiles within the Navy. NAVSHIPS is responsible for jointly developing, with NAVORDSYSCOM, system installation design. In addition, NAVSHIPS is responsible for specific portions of the system. Naval Supply Systems Command (NAVSUPSYSCOM) and Naval Material Common (NAVMATCOM) obtain the materials and place them at the various supply depots, from which they may be obtained by the operating units.

Guided Missile Support Facilities

The Navy Ordnance Systems Command is establishing guided missile support facilities at various coastal and tidewater depots. These facilities are being provided with the necessary special test equipment and skilled personnel to assemble, check out, modify, maintain, and prepare for issue various NAVORDSYSCOM guided missile material, scheduled for service use. This material includes requirements for the U.S. Marine Corps, as well as for the fleet and naval air stations. In addition, these facilities will support ammunition type components such as warheads, fuzes, and rocket motors for Sparrow and Bullpup missiles. Guided missile facilities at depots, unlike conventional ammunition facilities, require 'considerable special-purpose electronic and hydraulic test equipment, and special tools and handling equipment. These guided missile support facilities are specially designed to maintain substantial numbers of specific types of guided missiles in a ready-for-issue condition for ship allowances, fleet training, and

NAVORDSYSCOM evaluation. The facilities also have capabilities for off-loading fleet missile in conjunction with vessel shipyard overhauls, for accomplishing minor maintenance, and for performing ORDALTS on missiles in stock.

The primary distribution points for guided missile material in the ordnance segment of the Navy supply system are NSC Norfolk, Va., for all ordnance guided missile material on the East Coast, and OSD, NSC Oakland, Calif., for all ordnance guided missile material on the West Coast.

BUDGETING AND FUNDING

Each of the Services is responsible for its own budget estimates. They submit their estimates of their needs and these are reviewed jointly by the Bureau of the Budget and the Department of Defense. Each Service must be prepared to justify, with facts and figures, every item in its budget. The information on which budget estimates are based must be submitted by the using agencies of each Service.

Your Part in Budgeting and Funding

The paragraph above describes very sketchily the top level activities in budgeting and funding. Although you play no direct part in the budgeting and funding process, you do have a part at the ship's (or activity's) division level. The cost of operating your division is included in the final estimate. Economical use of materials .can reduce costs a surprising amount; excellent care of material helps to keep expenses down. The budget has to' include replacement costs of equipment. You are aware that careless use can ruin a piece of expensive electronic equipment in almost no time. Carelessness or ignorance can destroy in a flash a weapon costing many thousands of dollars, or even a million dollars. The cost must be covered by the budget allowances and is paid for by taxes, yours as well as others.

At each level of the organization, an estimate of the operating requirements is necessary. Your reports furnish the needed information to the division officer so he can estimate the needs of

his division. The assignment of weapon capabilities is made by high-level planning groups. You cannot guess what the requirements will be. But you can keep down the day-to-day operating costs in your division, and the sometimes startling costs of carelessness and ignorance in weapon handling, maintenance, etc.

COSAL AND WHAT IT MEANS

The Coordinated Shipboard Allowance List (COSAL) was explained and illustrated in your Military Requirements text, cited above. As a GMM 1n the Weapons Department the part of the COSAL that concerns your work is the section that lists the guided missile launching systems and the tools and repair parts allowed for their maintenance. The type and quantity of repair parts allotted a ship was determined by studies of requirements in the past. Each ship has a COSAL prepared just for it and the ship is stocked accordingly.

The parts of the COSAL prepared by Ship's Parts Control Center SPCC) cover hull, mechanical, electrical, and ordnance equipment. The Electronics Supply Office (ESO) prepares the part on electronics equipment; Aviation Supply Office (ASO) deals with aviation equipment, and Naval Ship Engineering Center (NavShips) prepares the COSAL for portable communication, radiac, and sonar equipment, and electronic and electric test equipment allowance.

The stock numbers given in COSAL listings are Federal Stock Numbers (FSNs). The Federal Supply Classification system and the numbering system were explained in *Military Requirements for Petty Officer 3 & 2*, NAVTRA 10056. Review it to refresh your memory.

The COSAL does not include ship's store stocks, resale clothing, bulk fuels, subsistence items, expendable ordnance, or repair parts for aircraft. These items are covered by separate outfitting and load lists.

Ordnance Segment of COSAL

The ordnance segment of the COSAL is an allowance list of ordnance equipments, equipage, and supporting repair parts and other materials, tailored to the individual ship. As each active ship with ordnance installations undergoes

overhaul, it is supplied with a new ordnance segment of the COSAL. All active fleet, new construction, and major conversion ships with installed armament receive an ordnance segment of the COSAL. Only the items listed will be placed on board, in the quantity listed.

The ordnance section of the COSAL is made up of an introduction and three separate parts. The introduction is prepared by the Ship's Parts Control Center (SPCC) and gives complete information on the use of the COSAL. Study this introduction carefully before using the COSAL.

Allowance requirements for nuclear weapons, guided missiles, and certain FBM equipments are included in special supplements to the COSAL. The supplement consists of an index of all major training items, test and handling equipment, tools, and consumables within the nuclear weapons program; an Allowance Parts List (APL) of all authorized repair parts within the equivalent war reserve weapons or components and test equipment listed in the index (above); and a stock number sequence list of authorized onboard allowances for all equipments and repair parts listed. The supply department does not have cognizance over war reserve nuclear components; the weapons officer must take the responsibility for those. The tools, test equipment, etc., are obtained through the supply department.

The page numbers of the ordnance part of the COSAL are preceded by Z.

Sections A and B of the index cross-reference each other. Knowing how to use the index is an important part of knowing how to use the COSAL to locate an item. Practice is the best way to become familiar with using the index.

Records and Reports for COSAL

The COSAL does not generate any additional reports or records but simplifies your record keeping. It gives you the Federal Stock Number for most of the items you have to order, and saves much looking up of those numbers, It lists the items your ship is allotted, so you will not order something you may not have. For example, you might like to study the OPs for the Talos, but if your ship does not have Talos capabilities, the books will not be sent to you. When you need a repair part, the COSAL gives

you the correct stock number for ordering it, so you will get the correct part. It gives you the correct name for the part and tells where it is used, which gives you another method of checking that you are ordering the right part. If the supply department on the ship has it in stock, the COSAL also gives you that information.

The COSAL for each ship is prepared by the Inventory Control Point (ICP), which also stocks the ship with the listed equipments and repair parts, either at outfitting of a new or a converted ship or just before overhaul. Minor revisions to the COSAL are made as pen-and-ink changes on the ship's copy. More extensive revisions or additions are distributed as changes.

How to order Supplies
According to COSAL

Part 1 of the COSAL lists your equipment and its major components, and gives the component identification numbers (application code). The identification number acts as a page number for a more compete breakdown of the components in Part II.

Part II is the Allowance Parts List of repair parts needed to support the items in Part I. The Federal Stock Number for each item is given in Part II.

Part III of the COSAL is the final authorized on-board allowance quantity of a repair part. This part of the COSAL is of more use to the storekeeper than to you. It is here that the total allowance of parts which may be common not only to the ordnance section of the COSAL but other departments as well, are added together. That is, your section of the COSAL may permit you an allowance of three particular limit switches. The engineer's COSAL may show their allowance to be six of the same switchers. Part III of the COSAL will show a total of nine of these switches, giving their applications.

Procurement of Material

Procurement is the act of getting or obtaining something. As a rule your supply officer will procure the material for you, provided you furnish him with the necessary information. The COSAL tells you what material is authorized. You must know what forms to use and the

procedure for initiating procurement action. Material may be procured by: (1) requisition, (2) purchase, (3) transfer, and (4) manufacture.

The requisition method is the one you will use most often. Use NAVSUP Form 1250 or DD 1348 to obtain your supplies and repair parts from the ship's storeroom. A supply of the forms is usually kept in the weapons office. While you are in the weapons office, check the COSAL to find out if the part you want is stocked, and copy the Federal Stock Number on the form. If it is customary on your ship to list the price, look it up and enter it on the form.

When you have filled in the information on supply form, take it to your department head for his signature, then take it to the storekeeper. The storekeeper will double-check your information, and if the item requested is in stock, he will issue it to you. He retains the form as authorization for the supply department to requisition the same item from supply ashore to bring the ship's allowance up to full condition again.

It is good practice to maintain a file in the weapons office of all material requisitioned from supply. Record the request or requisition numbers. These numbers are assigned by the supply department and entered on the supply form. The number is especially helpful when tracing a part that was requisitioned from an activity other than your ship, such as a shore activity. The requisition number is necessary to start a tracer through the supply system to locate your material if it is unnecessarily long in coming.

If you are unable to determine the Federal Stock Number of a repair part that you need, use NAVSUP Form 302 to requisition it, and give all the descriptive information that you can. This information will include nomenclature, identification taken from the nameplate, drawings, or any source that will help identify the item.

The 302 form is shown in PO 3/2 NAVTRA 10056.

When you have used a repair part that was stocked in your department, do not put off ordering a replacement for the part.

In-Excess Requisitions

Sometimes it is necessary to request material

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above the quantity shown for the item on the COSAL. Your department must give reasons sufficient to justify the need in excess of the allowance and the supply department prepares the in-excess requisition.

In-excess requisitions are required for all of the following materials:

1. Equipage not on the ship's COSAL.
2. Equipage on the COSAL but requested in greater quantities than allowed.
3. Nonstandard consumable supplies.
4. Repair parts not listed with quantities on the ship's allowance, for which a requirement can be justified.

Approval of an in-excess requisition does not constitute a change of or addition to the COSAL. If replacement of the in-excess articles is required, additional approval is required.

Issuing Procedures

Procedures for issuing supplies vary on different ships. Approval by the man maintaining the Departmental Budget Record may be required on some ships. Clearance with the supply department is required before proceeding to the stockroom with the approved requisition form. Be sure that each man drawing material is instructed to check that each item is received in correct quantity and the price is listed correctly for the material actually received.

Disposition of Repair Items

In the basic repair cycle of the distribution system, all items fall within two general classifications. These classifications are "Expendable" and "Nonexpendable" items. The expendable items are disposed of in accordance with applicable current instructions. The nonexpendable items, which are classified by Material Control Codes G, H, 0 (formerly "X" fraction code), on the allowance list are rated as repairable. The user returns them to the supply system when he requisitions replacements. Vessels operating outside the continental United States will normally off-load such failed components at the first opportunity. Once back in the supply supply system, these failed or damaged items are reported to SPCC as available for repair.

The primary distribution points have a list of items requiring fast repair. These items are returned to the contractor or a qualified repair center immediately upon being turned in. Repairable items not appearing on this list will be accumulated at the distribution point pending disposition instructions from SPCC.

STUDIES TO IMPROVE
REPAIR SUPPLIES

The Planned Maintenance Subsystem is providing means to correct failings in the supply system for repair parts. Military Essentiality Coding (MEC) is a method of determining just what repair parts are likely to be required. Some equipments and components on shipboard are more essential than others for the performance of the ship's mission. The failure of a search radar, for example, is more serious than the failure of laundry equipment (in relation to the ship's mission). MEC assigns code numbers that indicate the criticality of the equipment. Computerized analysis of all reports reveals how essential each repair part is, how many parts will be needed in stock, and other data on supply. Study is continuing on MEC to summarize data from reports and thus reveal actual needs for repair parts and avoid overstocking or understocking. You can help in this program by supplying information regarding items needed or not needed.

The MEC on the Allowance Parts List (APL) and on the Stock Number Sequence List (SNSL) uses codes I and 3. Code I is given to parts whose failure would have a major effect on the dependence/operation of the component. Code 3 is assigned to parts whose failure would have little effect on the dependence/operation of the component.

The MEC is given in the COSAL Index as V-Vital, or NV-Nonvital. Equipment is classed as V if its failure could reduce the ship's capability to perform its mission. If the ship's mission would not be adversely affected, the equipment is classed as NV.

SOURCES OF ORDNANCE IDENTIFICATION

In addition to the COSAL, there are several other places to search when trying to identify an item (which may be an old model not given in new lists, or for other reason is difficult to identify exactly).

One of the most important sources of identification is the information on nameplates. This may include the manufacturer's name, make or model number, size, voltage, and the like. Identification publications such as manufacturers' technical manuals may help you in identifying an item.

The 2-digit cognizance symbol that precedes the Federal Stock Number indicates the command, agency, or office that has control over the supply and distribution of the material. Two-digit dual cognizance symbols replace the former one-letter symbols used.

Cognizance symbols are assigned to different groups of material. Cognizance symbol "21" material includes, among other things, guided missile launchers (less airborne), torpedo launchers, rocket launchers, selected fire control and optical equipments under the design control of NAVORDSYSCOM, and other major ordnance equipment.

Cognizance symbols "2T", "4T", and "8T" are expendable ordnance and include missiles; signals, underwater sound; related inert and explosive components, and selected support or test equipments for the above items. Torpedoes; mines, and underwater ordnance are "6T". The condition of ordnance material is also designated by code letters which are used in stock recording and reporting procedure for the ammunition segment of the ordnance supply system. A numeric code was formerly used. The changeover calls for the use of a new Ammunition Class X, new alphabetic condition codes, and MILSTRIP routing identifiers to be used in place of station reporting numbers (e.g., N35 for SPCC, N24 for 4T NAVORDSYSCOM, etc.). The new designation Ammunition Class W identifies items for which end action disposal has been authorized.

Illustrated Parts Breakdown of Ordnance Equipment (IPB) is a publication prepared by SPCC. Each IPB is published for one particular type or piece of equipment, and describes and illustrates the relationship of all assemblies and parts comprising the equipment. IPB 0000 is an index of all IPBs.

NMDL

The Navy Management Data List (NMDL) provides information necessary for good management of the item. It is not practical to include such items as price, unit of issue, and cognizance symbol in the Federal Supply Catalog or in the COSAL since these items are subject to frequent change. -Therefore, these items, along with other information, are listed in the NMDL. Basically, you will use this publication to determine the price, unit of issue, cognizance symbol, and material control code (if applicable) for FSNs you have located in the COSAL. All Navy-interest FSNs are listed in the NMDL.

You will continue to use the SPCC Ammunition Index of Navy Ammunition, Navy Stock List of Forms and Publications, and certain ICP specialized supplements.

The NMDL is expected to eliminate a great deal of searching for correct stock numbers to identify items, and to simplify requisitioning. It will extend the utility of the COSAL by providing updated stock numbers and reference numbers.

Other Supply References

General purpose items are described and illustrated in the Illustrated Shipboard Shopping Guide (ISSG).

Part numbers are cross-referenced in the Master Cross-Reference List (MCRL). Another publication that is frequently used with the MCRL is the Federal Supply Code for Manufacturers. It consists of two volumes and lists all commercial firms manufacturing material for DOD. Each manufacturer is identified by a 5-digit number. One volume lists the manufacturers in alphabetic order and identifies them to the code number. The other volume is a numerical listing by code number, and identifies the manufacturer. Frequently, different parts manufactured by different manufacturers will be identified by the same part number. When this

occurs, the FSCM helps you identify and obtain the correct part. If you have any question on supply, the answer can probably be found in the NAVSUP Manual, and someone in the supply department will know about it or can find it.

Ordering Publications

Cognizance symbol "I" designates printed material such as standardized forms, handbooks, instructions, and training publications. They are listed in NAVSUP Publication 2002, "Navy Stock List of Formers and Publications, Cognizance Symbol I." The initial commissioning allowance is sent without requisitioning. Other recommended publications, classified as Category II, may be requisitioned from Forms & Publications Stock Point, U. S. Naval Supply Center, Norfolk, Virginia, or Oakland, California.

Except where indicated otherwise, order OPs and changes from the Naval Supply Depot, Philadelphia, Pa. Use a MILSTRIP form. Changes are automatically supplied, but if you are missing any, write, "include changes 1, 2, and 3" in the "Remarks" section of MILSTRIP on which you order the OP by stock number.

Whoever is appointed the publications custodian has the responsibility for ordering publications that are needed and keeping changes inserted. He also is responsible for the security of the publications.

HOW TO PREPARE REQUISITIONS

The uses of NAVSUP Form 1250 and NAVSUP Form 302 were discussed earlier, and you have studied about them in Military Requirements for Petty Officer 3 & 2, NAVTRA 10056. These forms are used for procuring items from the supply department aboard ship. The use of data processing equipment has brought into use the requisitioning procedure called MILSTRIP.

Military Standard Requisitioning and Issue Procedures

MILSTRIP is a procedure used to requisition all items of general stores and repair parts. It uses codes for a large part of the information on the card form. MILSTRIP has been extended to include all items of supply except supplies specifically excluded.

NAVSTRIP was an interim method used by the Navy during the development of the MILSTRIP procedures. The same form DD Form 1348, was used. This may be a single-page form, or 4-part, or 6-part form. Supply personnel usually complete the forms but you need to give the information for the parts to be requisitioned. Your military requirements texts discuss the use of the form in connection with supply and with the 3-M system.

PRIORITY SYSTEM

The Uniform Material Movement and Issue Priority System (UMMIPS) forms an integral and essential part of supply support functions by providing a common basis for determining the relative importance of material movement and issue transactions. Priority designators are from 01 (highest) for the most important through 15 (lowest) for the least important. Figure 11-4 shows the two elements that are required to assign a priority designator to any request. The first of these elements is the force/activity designator (F / AD). An F / AD is assigned to each ship by higher authority (normally by or via TYCOM). Its purpose is to rate the ship according to its military or mission importance. The second element, Urgency of Need Designator (UND) is explained on figure 11-4.

When you are requisitioning material, you merely tell the supply officer when you need the material. The supply officer will then assign a tentative priority code. When the assigned priorities are 01 through 03, the commanding officer must personally review the requisition. All other priorities may be reviewed by someone assigned in writing by the commanding officer.

WEAPONS DEPARTMENT REPORTS

OPNAVINST 5214.1C contains a consolidated list of required recurring reports from operating forces of the Navy to Navy headquarters organizations. These reports are made by ship's department heads via commanding officers from information received from petty

Urgency of need designator (condensed description)	Force/activity designator					Supply Activity Processing Time	PLUS Standard delivery time for delivery to:			
	I	II	III	IV	V		CONUS	Alaska, Hawaii, Caribbean, South America, North Atlantic	Northern Europe Mediterranean Africa	Western Pacific
	Priority designator									
Designator A Emergency material requirements for primary weapons and equipment for immediate use without which the force/activity concerned is unable to perform its mission.	Ø1	Ø2	Ø3			3 days	3 days	4 days	4 days	5 days
To eliminate a work stoppage at intermediate maintenance activities on primary weapons or equipments of customers.				Ø7	Ø8					
Designator B Immediate material requirements for immediate use or for known requirements in the immediate future, the lack of which impairs the operational capability of the force/activity concerned. Preclude	Ø4	Ø5	Ø6			4 days	6 days	4 days	4 days	5 days
anticipated work stoppage on mission essential equipment. Replace allowance list material required to support mission essential equipment.				Ø9	1Ø					
Designator C Material requirements to meet scheduled deployments. Material needed to repair/replace administrative or collateral equipment or systems not immediately essential to operational mission. Material required for scheduled maintenance or material required for routine stock replenishment.	11	12	13	14	15	13 days	13 days	38 days	43 days	53 days

Standard Delivery Date is obtained by adding the supply activity processing time AND standard delivery time to the requisition date.

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Figure 11-4.—Priority Designators and Standard Delivery Dates.

officers of different divisions of a ship. The information necessary for these reports comes from equipment logs, missile logs, supply records and the ship's CSMP. An example of a required report is the SMS Firing Report which is submitted after each test firing of guided missiles against surface or air targets. A firing report is sent within four working days following the firing to U. S. Navy Fleet Missile Systems Analysis and Evaluation Group (FMSAEG), Corona, California.

Missile Firing Report

For each surface-launched missile firing test, ships have been required to prepare a one-page firing report NAVORD form 8821/8. To collect data for the form, most ships have devised observer data sheets. Since similar data are contained in both the firing report and data sheets, a new report form is now provided which combines the two into one report. Report symbols assigned to the reporting requirements are NAVORD 8810-6, Surface-Launched Missile Firing Reports and NAVORD 8810, Electromagnetic Interference (EMI) Report. The data required on firing reports are of extreme importance to the Naval Ordnance System Command Headquarters (NAVORD), and the information provided by the Fleet will be under constant review to ensure that the maximum degree of missile system performance is achieved. To be

successful in this endeavor, the reporting and evaluating of data must be a joint effort. The information supplied to a department head by leading petty officers must be accurate and up-to-date. The firing reports which may be filled in by hand consist of three separate forms, depending upon the type missile fired. The Talos system used from 8810/6A, the Point Defense system uses form 8810/6B and the Terrier/ Tartar/Standard systems use form 8810/6C. All data indicating performance of the weapon system during the missile firing, including film, magnetic tapes, paper records, operations recorder, target plots, and logs for the expended missile and their components are sent with the missile firing reports. Instructions for completion of forms 8810/6 are contained in NAVORDINST 8810.7. Weapons exercises, conducted aboard ship for training purposes, checking out the weapons system, and qualifying and grading the ship and an operating unit, are described in FXP-3 series (Ship Exercises). When your ship is preparing to engage in firing exercises, make yourself familiar with the plan and your place in it. Team work and cooperation are essential to successful performance in firing exercises.

Commanding Officer's Narrative Report (CONAR)

Despite the large amounts of statistical data accumulated from the MDC system, there remains a vital need for the comprehensive assessment of the surface missile systems and associated equipment as an integrated part of a ship's defense capability. The Commanding Officer's Narrative Report provides an opportunity to comment on the missile system as a whole, and to make such recommendations as desired for improved operation of the system. Problems of quality control or poor design of parts, suggestions for better utilization of equipment or manpower, and changes in test design should be reported routinely on the PMS feedback report, OPNAV 4790/7 A, or, if desired, in a Narrative Report. To the extent that this report is used to define problems, it is an "exception" report intended to uncover problems of more than a routine nature. It may be used to evaluate, compare, or to simply report

problems encountered. The CO Narrative Report is submitted to Naval Ships Missile System Engineering Station (NAVSHIPMISYSENGSTA) within 15 working days after each calendar quarter. A guide for preparing the CONAR report is contained in NAVORDINST 8810.5.

A CO Narrative Report is divided into sections covering equipments which effect a guided missile or a SMS weapon system operational capability. A section of this report is used to facilitate the exchange of information among missile systems which may have the same or similar problems. This section can be used by missile launcher system personnel as a reference to solve a maintenance problem. Each problem area of a missile system is divided into separate sections which explain the casualty, the findings, the remedy, and the probably cause. Since most types of missile weapon systems installed aboard a particular class of ship are physically and the functionally the same, the remedy of a casualty of one ship could also be the remedy of a casualty of a ship in the same class. For this reason all inputs related to casualties and maintenance problems for a given launcher system should originate from a missile launcher system petty officer whose knowledge and personal judgment are essential for improving and maintaining surface missile launching systems.

Upon receipt of a CONAR, the missile system engineering station takes the following actions:

(1) Distributes copies of CONAR to prescribed NAVORD activities.

(2) Enters in-service engineering problems into the Deficiency Corrective Action Program (DCAP) system in accordance with SMSINST 8810.1A.

(3) Reviews those areas of responsibility of the CONAR and provide a CONAR reply wherein those problems, other than in-service engineering problems, are discussed, indicating action intended, when appropriate. Problems relating to personnel are referred to the Bureau of Naval Personnel for possible comment.

DCAP

The DCAP is the vehicle for monitoring and controlling the actions necessary to respond to

feedback information received from fleet and shore activities. All data elements and information reported via the formalized 3-M reporting system and by CONAR from all sources are processed to establish the in-service engineering responsibilities and authority necessary to solve and correct a problem. The CONAR provides the primary periodic feedback channel for all SMS problems and deficiencies. Acknowledgment of all reported problems and deficiencies is vital to the success of the CONAR and will be continued; however, DCAP reporting will be restricted to progress on in-service engineering problems only. The DCAP system will:

(1) Provide one central clearing house for SMS in-service engineering problems and establish communication channels for the expeditious flow of problem information.

(2) Provide continually updated information on the status of in-service engineering problems and provide follow-up action. Problems will not be terminated until the final solution has been accomplished in all affected ships or stations, incorporated into production as required, and all technical data and records have been made.

(3) Inform all levels of management, through a series of reports, of all SMS in-service engineering problems, actions planned or underway, and interim or final solutions. An in-service engineering problem is concerned with all engineering actions that are required to ensure the SMS equipments continue to be suitable for their intended service use. In-service engineering does not include within its scope actions which would significantly after specified operational or performance characteristics, which would alter the configuration or interface requirements, or would compromise the reliability or safety of SMS equipments.

GUIDED MISSILE SERVICE RECORD

Once a missile had been received at the firing activity, all tests and work done on the missile (a complete history of the missile) must be conscientiously recorded on the Guided Missile Service Record (GMSR), NAVORD Form 8800/2 (NAVORDINST 8800.1). It is not used to report missile equipment failures. Missile test results are reported on this form.

This record is usually prepared in triplicate by printing with a ballpoint pen. This eliminates the need for transcribing to other forms. All servicing operations as well as the results of periodic and preflight tests, including firing of guided missiles, are recorded on this form.

The original is submitted monthly to Naval Fleet Missile Systems Analysis and Evaluation Group, Corona, California. The first copy is placed in the missile log and the second copy is placed in a file aboard ship for future reference. The second copy is retained aboard ship even after the missile has been fired and the missile log sent to Corona. No report is required for periods when no servicing to testing was done.

The information on the GMSR is coded and automatically processed after it is received at Corona, and the results summarized. The summaries may be used in connection with factory acceptance and rework information, waivers and deviations, quality evaluation laboratory data, and flight performance data to:

1. Predict potential failures.
2. Identify factors adversely affecting reliability and serviceability.
3. Determine the quality level of guided missiles in stockpile.
4. Recommend to the Naval Ordnance Systems Command.
a. Improvement in the design or production and quality control procedures for guided missiles.
b. Appropriate action to correct material defects, dispose of defective material, and revise handling, storing, servicing, and firing procedures.

The importance of the GMSR and its numerous uses makes completeness and accuracy of reporting essential. Whether you or pas of another rating will have prime responsibility for the report depends on the local situation.

In Terrier systems which have ASROC capabilities, an additional log is used for identification and transactions of ASROC weapons. NAVORD form 8540/3 is used to record all information about ASROC weapons. and includes mark, modification and serial numbers, and ammunition lot numbers (if required) for each component that makes up an assembled

weapon. Each ASROC is identified by an assembly identification number (AIN) for either a Rocket Thrown Torpedo (RTT) or Depth Charge (RTDC). When a missile is expended by firing, the log is sent to NWS, Seal Beach, California.

SMS EQUIPMENT STATUS LOG

All ships of the operating fleets equipped with surface missile systems shall complete the original and one copy of the Nonexpendable SMS Equipment Status Log, NAVORD Form 8810/2, figure 11-5, for each equipment listed in NAVORDINST 8810.3B. The originals of each week's data shall be forwarded within seven working days after completion to NWS, Seal Beach, Corona, California. The log may be filled in by hand. The yellow copy of 8810/2 will be retained by the ship as' its equipment rough log; no other log is required. The information recorded on 8810/2 shall' not repeat any maintenance action details that are normally reported on maintenance action from 4790/2K. Use as many 8810/2 forms as) necessary to record all information for a seven-day period. Continue entries for the next day on the same sheet if space is available. Make at least one entry at the beginning of every day. This entry should show at least the date, time, and ~ode in appropriate columns (fig. 11-5). A final daily entry should show at least the date, time, status code, and signature of the person completing the form. Procedures for completing 8810[2 are explained in NAVORDINST 8810.2A. The security classification of 8810/2 when filled in will depend upon the content in the Remarks section. If there are no classified remarks, then the form is unclassified and does not need to be marked. Examples of entries which may or may not classify 8810/2 are:

a. Statement that a missile was fired is unclassified.

b. Statement of a missile firing with results of firing is Confidential

c. Specific missile frequencies are Secret.

d. Routine operations of the equipment, such as DSOTs, tracking operations, loading operations, or system testing are unclassified.

For the appropriate downgrading statement when 8810/2 is classified, see Navy Security Manual 5510.1C.

NUCLEAR REPORTS AND INSPECTIONS

All nuclear material is subject to the control of Defense Nuclear Agency (DNA). Personnel assigned to work with nuclear weapons must receive special training in the handling, stowage, and accounting methods peculiar to nuclear weapons. Prior to such training they must possess at least a Secret clearance based 011 a background investigation. If you work in a GMLS that has nuclear weapons, a series of special publications is issued by the Joint Atomic Weapon Publications System and are used as reference publications for maintenance, tests, storage requirements, and identifications of all nuclear weapons used by all services. In addition a series of Navy Special Weapons Ordnance Publications (SWOPs) for Navy nuclear weapons and their related equipments for each type nuclear weapon used with shipboard GMLS is also issued. The SWOPs take precedence over all other technical publications where conflicting information is present. Since all the procedures in SWOPs are mandatory, it is important that all shipboard activities expedite the processing and routing of message/speedletter changes, interim and permanent changes to SWOPs to ensure prompt updating of affected publications. Each type of nuclear weapon and its related components and their test equipments are assigned a separate publication number series applicable to the Navy's Nuclear Weapon Program. For example SWOP 30.19 series is applicable to Talos and SWOP 45.21 series is applicable to Terrier. The requirements for the SWOP documents are determined by the individual commands in accordance with their nuclear weapons capabilities. An Index to Joint Atomic Weapons Publications used for multiple service purposes is listed in SWOP 0-1; a Navy supplement SWOP 0-1B lists all publications applicable for Navy use only.

Chapter 8 of this text mentioned some of the reports required for nuclear material. All nuclear weapons, handling equipments, and record and reports are subject to special inspection in accordance with OPNAVINST 05040.6 (series).

Figure 11-5.—Nonexpendable SMS Equipment Status Log Report, NAVORD Form 8810/2.

The type of inspection required for any activity having nuclear capabilities depends upon the type installation and type weapons.

Navy Technical Proficiency Inspection (NTPI)

This inspection is performed once a year by Navy inspectors. The inspection teams are sent aboard ship from Nuclear Weapons Training Centers. Instructions are issued by fleet commanders; these differ for east and west coast fleets. The NTPI determines the capabilities of the Navy activities for storing, testing, assembling, maintaining, handling, and loading nuclear weapons or nuclear missiles. When the NTPI team is to come aboard, obtain the current instruction and study it so you will know what is expected of you and your men.

Inspectors are provided from the Nuclear

Weapons Training Centers, Atlantic or Pacific, by the appropriate fleet training commands for all fleet inspections. The inspectors are usually officers and chiefs who are skilled in nuclear weapons handling. When practicable, NTPIs of fleet units are conducted in conjunction with, and as part of, operational readiness inspections (ORI) or other major readiness exercises.

NTPls are graded in accordance with applicable directives of fleet commanders in chief and NAVORDSYSCOM. Inspection reports are made in accordance with applicable directives of fleet commanders and NAVORD and include all the inspector's comments, recommendations and discrepancies noted. They are appended to the chief inspector's report.

NTPI Guides

With the vast numbers of different nuclear capable units operating in ,the fleet today and their many levels of responsibilities, it is apparent that some sort of guide should be made available delineating the items that are to be inspected. Therefore, a guide for each of the many different types of activities is published and used in the conducting of inspections. The action required for items listed in the guide is governed by the requirements of the governing directives (SWOPs, OPs, Inst, etc.), in force at the time of the inspection, rather than the working or apparent intent of the item. Although the guide is comprehensive, inspections are not limited to only those items listed in the guide. This is particularly true for items concerning new requirements not in existence at the time the guide was published. Consult your NTPI guide often to make sure you have not overlooked any items. Although the scope of coverage of an NTPI differs for almost every activity, all matters directly related to the processing, handling, testing, inspecting, maintaining and storing of nuclear weapons, and all matters and procedures involved in the administration of a nuclear unit are included in every NTPI. Following are some of the items checked by an NTPI.

Housekeeping - Is the area clean, free from tripping or slipping hazards; the lighting sufficient, the noise level low, fire equipment inspected and maintained periodically, first aid and decontamination facilities properly identified and readily available?

Safety Precautions - Are they posted and are personnel familiar with them?

Emergency Equipment - Is it readily available, properly stowed, and in good condition?

Check Sheets - Are they up to date and do they include all manual changes and contain all applicable notes, cautions, and warnings?

Tool Safety and Discipline - Are all tools clean, in good condition, and used properly?

Two-Man Rule - Is the two-man rule enforced, with personnel who are equally knowledgeable with respect to the task being performed?

Use of Toxic and Hazardous Liquids or Materials - Are containers labeled properly for identification? Are they stowed properly?

Test and Handling Equipment - Records and labeling are checked for proper calibration, maintenance, and repair.

Is the personnel reliability program being implemented? Are the records of such personnel maintained properly and are medical and supervisory personnel provided observation of such personnel?

Is the intrusion alarm system being operated and maintained in accordance with existing instructions?

Local Instructions of the activity being inspected are carefully read and checked for current information and accuracy. Are personnel aware of them and are they being adhered to? Many discrepancies are noted in this area when these instructions are not reviewed and updated periodically.

Are Navy SWOPs, OPs, and ODs, maintained up to date in accordance with current allowance lists? Are subcustody procedures in effect sufficient to allow a rapid complete inventory?

Is the emergency destruction bill current and are personnel assignments reviewed to insure accuracy? Is the emergency recall bill exercised periodically?

Are personnel allowances adequate in view of the responsibilities and workload imposed?

Does the pass and badge system comply with current directives?

Are reports properly submitted?

Accident/Incident Drills - Are performed by the inspected organization and observed by the NTPI team. Accident/incident drills demonstrate initial procedures performed by local station personnel with the aid of the local EOD team, if

one is available. These drills are designed to check:

Medical, fire fighting, guard force, and EOD procedures.

On-scene survivors and on-scene commander's procedures.

Hot line procedures.

EOD equipment

Completion Inspection Report

At the completion of the NTPI, a rough draft report is prepared. A copy of this report is given to the activity and a critique is conducted. All discrepancies and comments are read to the technicians and supervisors and they are given an opportunity to dispute them. The final smooth report is issued about 2 weeks later, after a thorough check for accuracy and veracity. This report is submitted to the appropriate activities in the chain of command.

Upon completion of the inspection, the Commander, Naval Ordnance Systems Command makes a report directly to the Chief of Naval Operations, with a copy to the Fleet Commander in Chief, certifying the readiness of the facility. This report contains the following information:

A statement that all safety (nuclear and explosive) technical and security criteria have been met, or a statement listing the deviations from those criteria with the justification for waiver; and a statement as to whether the facility is ready to perform its assigned mission.

NUCLEAR WEAPONS ACCEPTANCE INSPECTION

A nuclear weapons acceptance inspection (NWAI) is conducted on all prospective Navy nuclear weapons activities by Navy inspectors. This inspection determines the readiness of the activity to perform technical, administrative, and logistical procedures directly related to their nuclear weapons capabilities. This could be a newly constructed ship, a ship just recently operational after an extended yard period during which a large number of personnel were transferred, or a newly constructed shore site. Each activity is inspected for each of its capabilities and must receive a grade

of satisfactory before it is considered operational for any capability. A regularly scheduled NTPI can serve as a NWAI for an operational activity achieving a new capability in addition to those it already holds.

TECHNICAL STANDARDIZATION INSPECTION (TSI)

This inspection is performed by personnel from Field Command, Defense Nuclear Agency (DNA). The schedule of inspections is published, so you wit) be aware of the approximate date when your activity will be inspected. During the TSI, you and your men will be expected to assemble a nuclear warhead into a missile under the observance of the inspection team. In addition to judging your capability in the handling and care of missiles with nuclear warheads, all the records, reports, publications, training programs, and team organizations will be inspected. As a guide to the inspectors, DNA Technical Letter 25-1 lists the points to be inspected. This list can also be a valuable guide to you for checking yourself and for training your men. The TSI also determines the status of maintenance of/your nuclear missiles.

PERSONNEL REPORTS

As you advance in your rating, your responsibilities increase not only in care and operation of equipment, but toward personnel of your group. Many of these responsibilities are defined in *Military requirements for Petty Officer 1 & C*, NAVPERS 10057. Group and individual training records, drill records, and records of instruction are described and illustrated. All these are records that you must keep when you are placed in charge of men. Their chances for advancement could hinge on the accuracy and completeness of your reports and records. Do not fail to enter on the record every test or qualification passed by a man. The best way to be sure it is done is to make the entry at the time, not later, "when you have more time." It is too easy to forget things that are put off. Also, do not give a man a passing mark if he does not actually qualify. The lives of many men may depend on the knowledge and skill of one; require your men to KNOW their jobs.

Personnel Injuries

Any time a man sustains a personal injury, a report must be made. The medical department prepares the medical report, but the weapons department must explain the circumstances that caused the injury. If a casualty is caused by an explosive accident or incident, it is reported according to the message format given in NAVORDINST 8025.1 shown in figure 11-6. The same format is used for reporting explosive accidents and incidents without personnel casualties. The messages may be supplemented with written descriptions, photographs, diagrams, etc. The purpose is to determine by what means the accident could have been avoided and to issue instructions to correct the conditions that caused the accident or incident. In item 9 (fig. 1.1-6), note the attention given to electromagnetic radiation. Analysis of reports supplied much of the information included in OP 3565, Technical Manual Radio Frequency Hazards to Ordnance, Personnel, and Fuel.

Supervisor's Report of Injury, NAVEXOS Form 180, is an administrative report about any type of injury sustained by military personnel. The information given on these reports is analyzed by the Coordinator of Safety Programs to discover the causes and frequency of different types of accidents.

SECURITY

Commanding officers are responsible for establishing security orientation, education, and training programs for all personnel assigned. OPNAVINST 5510.1 (series) provided the necessary minimum requirements for implementing these programs.

The central aim of the security education program is to make all personnel "security-minded". To achieve this, a continuing training program must be in use at all levels of the command, with emphasis by the senior petty officers to their subordinates.

Effective security also requires that the handling, accountability, procurement, stowage and transmission of classified records, reports, and publications be managed in an efficient manner. Good classification management practices are important in obtaining effective security control. If security needs are to be met, constant attention must be given to the way in which classified material is handled. With confidential and secret publications and material in daily use in a GML system, the responsibility for safeguarding classified material lies with each person who handles the material. In addition to this general responsibility each leading petty officer should establish organizational responsibilities for the control of classified material. A simple effective control system can provide a readily available accurate accounting system for classified documents. A guide for handling and control of classified material is OPNAVINST 5510.49 (series).

A petty officer can be designated as the custodian of classified publications within a missile system. His duties would be to keep a record of all classified publications assigned to that missile system so that every copy of each classified publication is accounted for without fail. The accounting procedures can be kept simple by eliminating unnecessary procedures so that the custodian can concentrate on the essential aspects of the accounting process at all stages in the handling of classified publications. In a missile system handling a very small quantity of classified material, you may find that a card system or log book is sufficient for effective control procedures;

With a card or log book system of accounting, each piece of classified material to be controlled is recorded on a card or log book. When a publication is issued, the person receiving the item should sign for it and, when returned, the custodian should record the date the item was returned and sign the control accounting form (card or log book) which is retained and used as an inventory file for classified material. When material is checked out for study purposes, a time limit should be set so that an up-to-date inventory can be maintained; this prevents a wild scramble when an inventory report is required for an inspection. Material used for study purposes are sometimes passed from one person to another without concern for safeguarding. A quarterly verification of a custodian's records, made by a leading petty officer, will assist the custodian by giving adequate attention to the essential aspects of control. Security-mindedness

NAVORDINST 8025.1A
3 Nov 1969

MESSAGE FORMAT

From: (Activity Submitting Report)

To: COMNAVORDSYSCOM
      SPCC Mechanicsburg

Info: CNO (Include CNO and designate OP-98 and OP-41D in message
      text for all accidents, incidents and malfunctions other
      than minor malfunctions)
      NAVORDSYSUPPOLANT/PAC (As appropriate on all ORD Items)
      NWL Dahlgren
      NAVSAFECEN NORVA
      CHAIN OF COMMAND (As appropriate - include service force cdr)
      COMNAVAIRSYSCOM (On accidents, incidents involving NAVAIR
      Items at non-aviation activities)
      Appropriate Information Addressees from enclosure (2)

      _____ Report, (Report Symbol NAVMAT 8020-2) (Insert
      Explosive Accident, Explosive Incident, Ordnance Malfunction,
      or Defective Ordnance, as appropriate, on subject line).

1. Complete Nomenclature of item including MK and Mod and Logistic
    (DOD) Code or Federal Stock Number.

2. Complete Round Lot Number or serial No. (Include lot numbers of
    major components, i.e., fuze, powder charge, motor, etc., as
    applicable).

3. Description of occurrence including date, time, and place of
    the occurrence, launching or firing equipment and conditions
    of firing, launching, etc.

4. Number and extent of casualties (Specify military, civilian,
    contractor or other).

5. Descriptions of damage to equipment or property (Government or
    private).

6. Number involved out of total fired or being processed during the
    run, exercise or batch.

7. Weight of explosive involved - actual or estimated.

8. Number of rounds remaining on hand from the lot involved
    (Include whether malfunctioned round or remaining fragments are
    available).

9. Describe any exposure to climatic or electromagnetic environ-
    mental conditions, if applicable.

10. Comments, as appropriate, (Include cause, known or probable,
    effect on launcher or gun capability, adequacy of operating
    instructions and safety precautions, local action being taken
    to preclude recurrence, request for assistance, recommendations,
    etc.)

11. Statement whether or not investigation will be conducted in
    accordance with the JAG Manual.

Figure 11-6.—Message format.

94.195

by leading petty officers is impressed upon all personnel when constant attention is given to .the way classified material is handled.

Security Orientation, Education, and Training Program

The security orientation, education, and training program of each GML system must include all personnel entrusted with classified information regardless of their position, rank, or grade. Persons being assigned to duties requiring access to classified information, prior to being granted access, must be indoctrinated on the security aspects and responsibilities of their assignment. A security training program should be designed to include the following:

1. Familiarize all personnel with the security requirements with which they have to comply for proper performance of their duties and assignments.

2. Remind all personnel of their responsibility for assuring that classified information is effectively safeguarded at all times.

3. Ensure willing, conscientious compliance with security regulations, procedures, and practices.

4. Advise all personnel of the hazards of disclosure of classified information to persons not authorized to receive it. Classified information can slip into conversations through carelessness.

5. Bring to the attention of all personnel the disciplinary action, outlined in OPNAV 5510.1 series, that may result from violation of security regulations.

Periodic briefings must be held by all commands for personnel having access to classified information. These briefings should include special emphasis on the subjects discussed in chapter 3 of the Security Manual, OPNAVINST 5510.1. The Security Manual also provides the necessary information for debriefing personnel who have had their security access to classified information terminated.

INVENTORIES AND SURVEYS

The supply officer is required to maintain a Controlled Equipage Custody Card (NAVSUP form 306) for each item of controlled equipment aboard. He prepares these cards in duplicate, turning over the copy to the responsible department head and maintaining the original in his safe. The allowance quantity shown on the copy signed by the weapons officer pertains to equipage used by the weapons department only. Controlled equipage for a GML system consists of selected items which require increased management control afloat due to their high cost, their vulnerability to pilferage, or, their essentiality to the ship's mission.

On some missile ships the weapons officer may delegate the leading petty officer of a GML system as custodian of the controlled equipage within his launcher system. The custodian may be required to sign a subcustody card which is a duplicate of the 306 form signed by the weapons officer. On ships that have more than one GML system controlled equipage, such as test equipment, usually have serial numbers assigned which are used as a means of identification and should be entered on the subcustody cards. When controlled equipage passes from one launcher system to another or from one petty officer to another, the new custodian should sign a copy of the custody card. A record is also kept on a custody card for all non-signature items issued to a department and serve as accountability cards for inventory and expenditure purposes.

All items of controlled equipage must be inventoried during March of each year. Inventories are also required when the ship is commissioned, inactivated, or reactivated; any upon relief of the head of department for those items in the department concerned.

In those instances when it is not feasible to stow missile system components in supply department spaces, the supply officer must be authorized by the commanding officer to stow such material in spaces belonging to the weapons department. When this type stowage is authorized, the weapons officer designates in writing a custodian whose major responsibility is to report to the supply department an accurate record of issues of all items under his custody so that the supply department can take prompt replenishment actions. It is required that a quarterly inventory be made of material stowed in weapons spaces. The inventory of such items is to be conducted

jointly by the custodian and a supply department representative.

SURVEY OF ORDNANCE MATERIAL

In official Navy publications a survey is regarded as a means of establishing the reason for deterioration or loss of government property. If material is missing, a survey is a means of finding what happened to it. It material is damaged, a survey will uncover how the damage occurred, who was responsible, and what should now be done with the material. The end result of a survey is to provide a method of expending the surveyed material from the books.

Anyone who is aware of a material condition that requires a survey may initiate action. Survey requests are normally started by the head of the department having custody of the material in question.

The originator requests a survey in ROUGH on a Survey Request Report and Expenditure form. The request must include the following:

1. Description and condition of the material.

2. Cause of loss, damage, etc.

3. Responsibility for cause or condition (if it can be determined).

4. Recommended disposition of material and action to be taken in regard to cause and responsibility.

As the initial request is forwarded via the department head and the supply officer, additional helpful information is added.

The purpose of this initial request is to provide all the data available to assist the commanding officer (or his delegate) in determining the type or survey, if any, to be ordered.

The type of survey to the conducted may be either FORMAL or INFORMAL.

Formal Survey

A formal survey is required at all times when it appears that responsibility for lost or damaged material may be placed on a person or persons in the naval service.

In most cases, a formal survey is conducted by one officer: However in the case of surveying equipage where custodial signature is required,

and when so directed by the CO, a survey board of three officers (no one of whom is from the department having control of the material) conducts the survey.

The following members may not serve on a survey board:

1. Commanding officer

2. Officer on whose records the material being surveyed is carried, for example, the Weapons Officer

3. Officer who is charged with the physical custody of the material being surveyed, for example, the Missile Officer.

When controlled equipage is surveyed, it must be recorded on the custody record card 306. Failure to do so may mean that the expenditure will not be posted to the cards (306), and the custodian will be held accountable for material that is long gone.

Informal Survey

As a rule, the information survey is held for routine matters where it appears that no disciplinary action is required. The distinguishing feature of the informal survey is that the CO appoints the head of department having custody of the material to be surveyed as the surveying officer.

After the findings have been made by the surveying officer, board, or head of department, a full report is submitted to the commanding officer for review. The supply officer and/or appropriate department head takes the final action in expending the material from the books.

Ordnance repair parts worn out or damaged in use are not surveyed when replaced by a new part, except upon order of the CO or higher authority. Repair parts lost or damaged in storage are surveyed when a notation of the survey must be included on the request for replacement. NAVORDSYSCOM requires formal survey for ordnance equipage requiring custody signature, when such equipage is missing, damaged, or worn beyond economical repair.

Repair kits are listed as one-line items and are replaced by complete kits, even though not all items in the kit were used up.

Some unserviceable items must be repaired by the manufacturers under the warranty provisions of their contract. The handling of such items and other repairable items is described in SPCC Field Instruction P4440.83. Many of the items discussed in this instruction are part of the Terrier/Tartar/Talos systems. Refer to this instruction for information regarding the disposition of any parts of those weapon systems.

Inspection

Material being inventoried or surveyed must be inspected. It will not suffice to copy from the custody cards or a previous inventory-you must sight each item and determine its condition. You may have men assisting you in the work but you are responsible for the accuracy of the report you turn in.

Costs

Every department aboard ship is given a budget for each quarter, representing the money available to procure the materials it needs. Careful management of supplies is a major part of keeping within your budget. Wastefulness uses up the funds without increasing the fighting effectiveness of the Navy.

You may be required to keep some of the budget records for the department. There is no standardized form for the budget record, but it should show the cost of the materials requisitioned, with each requisition number and the date. Be sure the materials were actually received and the requisition was not canceled or modified.

MANAGEMENT OF ORDNANCE STOWAGE AREA

The chapter on handling and stowing of missiles repeated several times the admonition about stowing of explosive components of missiles and nonexplosive items. Where to stow the assembled missiles is no problem - you know they must be placed in the magazines that are a part of the launching system, where they are locked in position.

MISSILES

Every missile received above is identified on the bill of lading or shipping document by name, mark, mod, lot number, serial number, manufacturer's name or initials, and/or other identifying information. Each missile received must have the information concerning it entered on the missile log. After it has been loaded into the missile magazine, the location of the missile is marked on the log and the type identification is inserted on the launcher panel. Prior to loading, you have checked the launcher magazine for operability of equipment, temperature control, humidity control, fire fighting equipment, and general cleanliness.

Only qualified men may be assigned to operate the handling equipment and the launching system for transferring the missiles to the magazines. Safety personnel are placed at strategic locations to enforce safety regulations. Due to the many hazards connected with the, handling of ammunition and missiles, no factor may be overlooked in setting up the organization for replenishment and carrying out the work. The petty officer in immediate charge of the handling and stowing operations must be thoroughly familiar with the operations. He must brief his men on the safety regulations and instruct them in what they must do. It is the duty of the leading petty officers to be with the men under their supervision, and to ensure that all safety precautions and procedures are strictly observed.

The guided missile officer is responsible for maintaining the allowance, accounting, stowage, safety, and custody of all classified components and publications of guided missiles. He initiates the requisitions for guided missiles, repair parts, tools, and handling and test equipment as established by the COSAL.

The commanding officer of the ship is responsible for the care, surveillance, testing, inspection, and overhaul of ammunition. During regular yard overhaul, he may request overhaul and inspection of the ship's ammunition supply. Guided missiles are overhauled at specified installations. Missiles must be returned to depots at specified intervals, current instructions for the missiles you have aboard tell you when and where to ship your missiles for this periodic

inspection and overhaul.

When missile components are stowed in ship's magazines, they require the same care as ammunition.

ORDNANCE MATERIALS

Missile ordnance materials include rocket motors, igniters, fuzes, warheads, and in some cases, boosters or auxiliary rockets. All of these units are potentially dangerous; each unit must be handled in accordance with the procedures authorized for it. The precautions in chapter 12 are in addition to the detailed directions given in the manuals for particular missiles.

All safety devices in ordnance units must be used exactly as designated. These devices must be kept in order and operative at all times. Changes, modifications, or additions to ordnance items may be made only upon explicit direction from the bureau concerned. No explosive assemblies may be used in any way or in any appliance except those designated by the proper authority.

SUMMARY

Standard reporting forms are discussed but emphasis is placed on the use of new reporting forms which can be processed by machines. It is essential to consider the operation of a weapon system as a unit, for no single part can serve as a means of defense. The GMM must coordinate his work with other ratings that specialize in other parts of the weapons system. Training plans must include all personnel who work with any part of the weapon system, and plans of the different departments and divisions must dovetail

nicely. Your training sessions on components of the launching system prepare your men to do their share in the operation of the weapon system.

The day-to-day condition of the weapon system components and the work done to keep them in operating condition require a reporting system from which the fact can be quickly extracted and summarized for conclusions. The use of data processing machines will make the facts quickly available to the planning echelons of the: Navy and the Defense Department. At the same time, the amount of work required to write the reports at the petty officer level will be reduced. Reports will still be required from the POs at frequent intervals on every phase of work, but the method of reporting will be simplified as) much as possible for machine pickoff.

This chapter brings together the story of how you are supplied with missiles and spare parts to maintain them. The entire supply system is undergoing extensive change. You must keep abreast of these changes, not as a professional supply man, but sufficiently so you can order supplies intelligently.

One of the important areas of endeavor is that of reducing costs. This is not to be achieved by having fewer missiles and therefore less firepower, but by less waste in the use of expendable supplies and better maintenance of nonexpendable ordnance. It cannot be relegated to one corner of the ship's system; the idea of cost reduction must permeate all areas and phases.

Carefully kept inventory lists are a necessity. They show not only what you have on hand but what has been used, and thus are a valuable source of information in planning future supply allocations.