



UNITED STATES MARINE CORPS
2D MARINE AIRCRAFT WING, FMF, ATLANTIC
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA 28533-6001

5-3

WgO P11275.1D
415/W829/bpl
11 Feb 1986

WING ORDER P11275.1D

From: Commanding General
To: Distribution List

Subj: Standing Operating Procedures for Engineers/Engineer Equipment (Short
Title: SOP for Engineers/Engineer Equipment)

Encl: (1) Locator Sheet

1. Purpose. To establish procedures, implement policy and provide guidance concerning 2d Marine Aircraft Wing Engineer/Engineer Equipment Operations.
2. Cancellation. WgO P11275.1C.
3. Action. Commanding Officers who have items of engineer equipment under their cognizance will ensure that the operation and maintenance of this equipment is performed in accordance with provisions of this Order and applicable references. In cases where this Order may conflict with directives issued by higher authority, the latter shall take precedence until such time as a change can be issued by this Headquarters.
4. Recommendations. Recommendations to improve procedures set forth in this Order are solicited from all addresses. Submit via the appropriate chain of command for evaluation.
5. Certification. Reviewed and approved this date.


G. A. ENOS
Chief of Staff

DISTRIBUTION: A(1)

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UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C. 20535



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Locator Sheet

Subj: Standing Operating Procedures For Engineers/Engineer Equipment (Short
Title: SOP for Engineers/Engineer Equipment)

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(Indicate the location(s) of the copy(ies) of this Manual.)

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT NO. 100

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

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- A FORMAT FOR ENGINEER ASSISTANCE; REQUEST FOR
- B FORMAT FOR ENGINEER SUPPORT DIRECTIVE NUMBER

UNITED STATES DEPARTMENT OF JUSTICE

MEMORANDUM

TO :

FROM :

SUBJECT :

RE :

DATE :

BY :

APPROVED :

FOR THE DIRECTOR :

SPECIAL AGENT IN CHARGE

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

INTRODUCTION

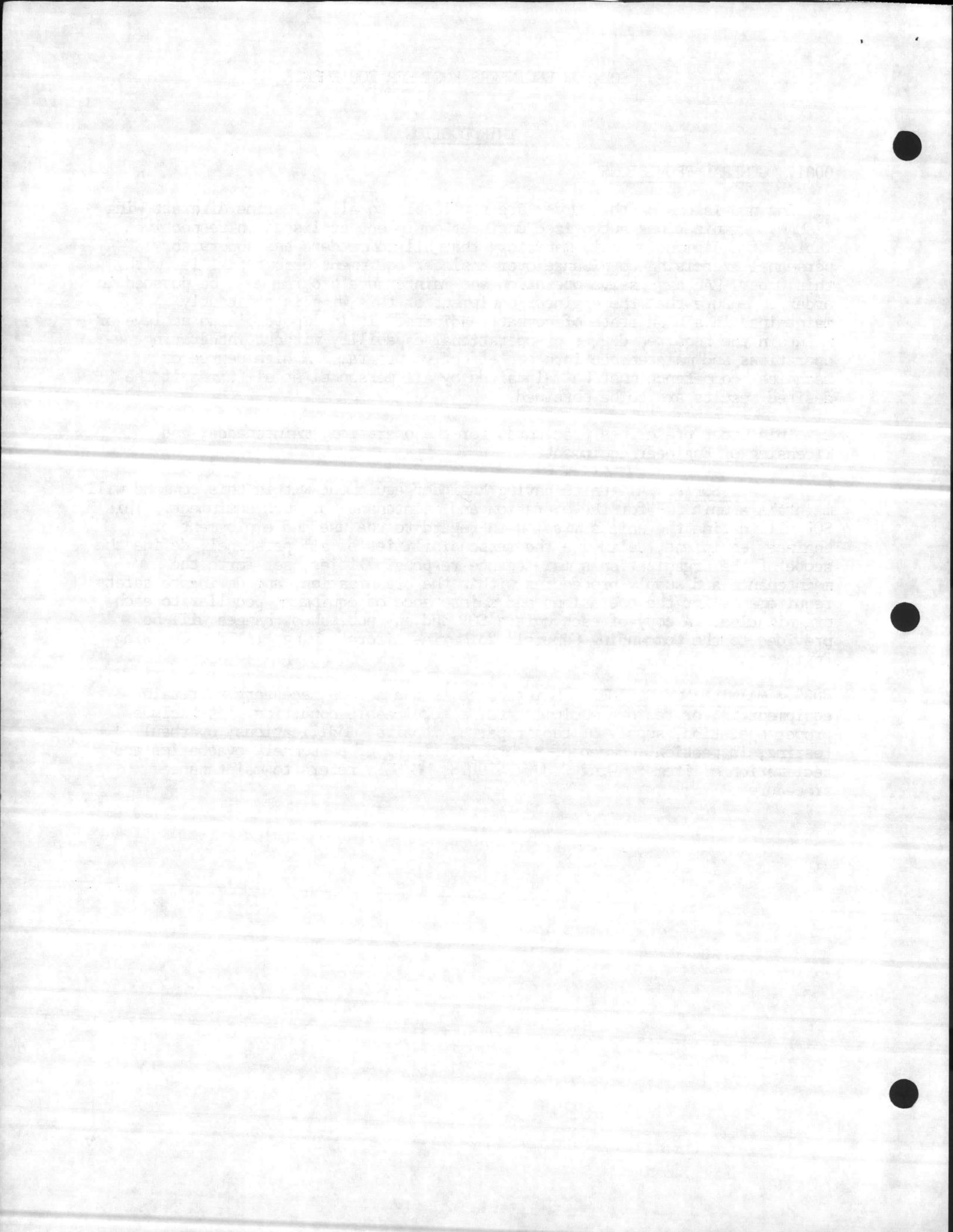
0001. GENERAL PROVISIONS

1. The provisions of this Order are applicable to all 2d Marine Aircraft Wing (2dMAW) organizations authorized Engineer equipment as listed on respective Tables of Equipment. It is mandatory that all commanders and supervisory personnel exercising cognizance over Engineer equipment become familiar with this Order. An aggressive operation and maintenance program must be pursued in order to ensure that the engineer equipment of this Wing is constantly maintained in a high state of combat readiness. It is impossible to achieve or maintain the required degree of operational capability without integrating operations and maintenance into one effective program. A high degree of technical competence must be maintained by all personnel at all times if the desired results are to be obtained.

2. This Order prescribes procedures for the operation, maintenance, and licensing of Engineer equipment.

0002. UNIT SOP's. All units having Engineer equipment within this command will maintain a unit SOP for the operation and maintenance of such equipment. This SOP will define the unit's mission in regard to the use and employment of engineer equipment, delineate the responsibilities of all personnel, define the scope of the organization's maintenance responsibilities, set forth the maintenance and supply procedures within the organization, and delineate safety requirements for the operations and maintenance of equipment peculiar to each organization. A copy of each unit's SOP and any published changes will be provided to the Commanding General, 2d Marine Aircraft Wing, (ATTN: G-4 Wing Engineer).

0003. MAINTENANCE DEFINED. Maintenance is the action necessary to retain equipment in, or restore equipment to, a serviceable condition. It includes proper operation, supply of repair parts, repairs, modifications, overhaul, testing, inspection, upkeep of records, training of personnel, evacuation and reclamation of items. Wing Order P4790.8, MM/SOP, refers to maintenance procedures.

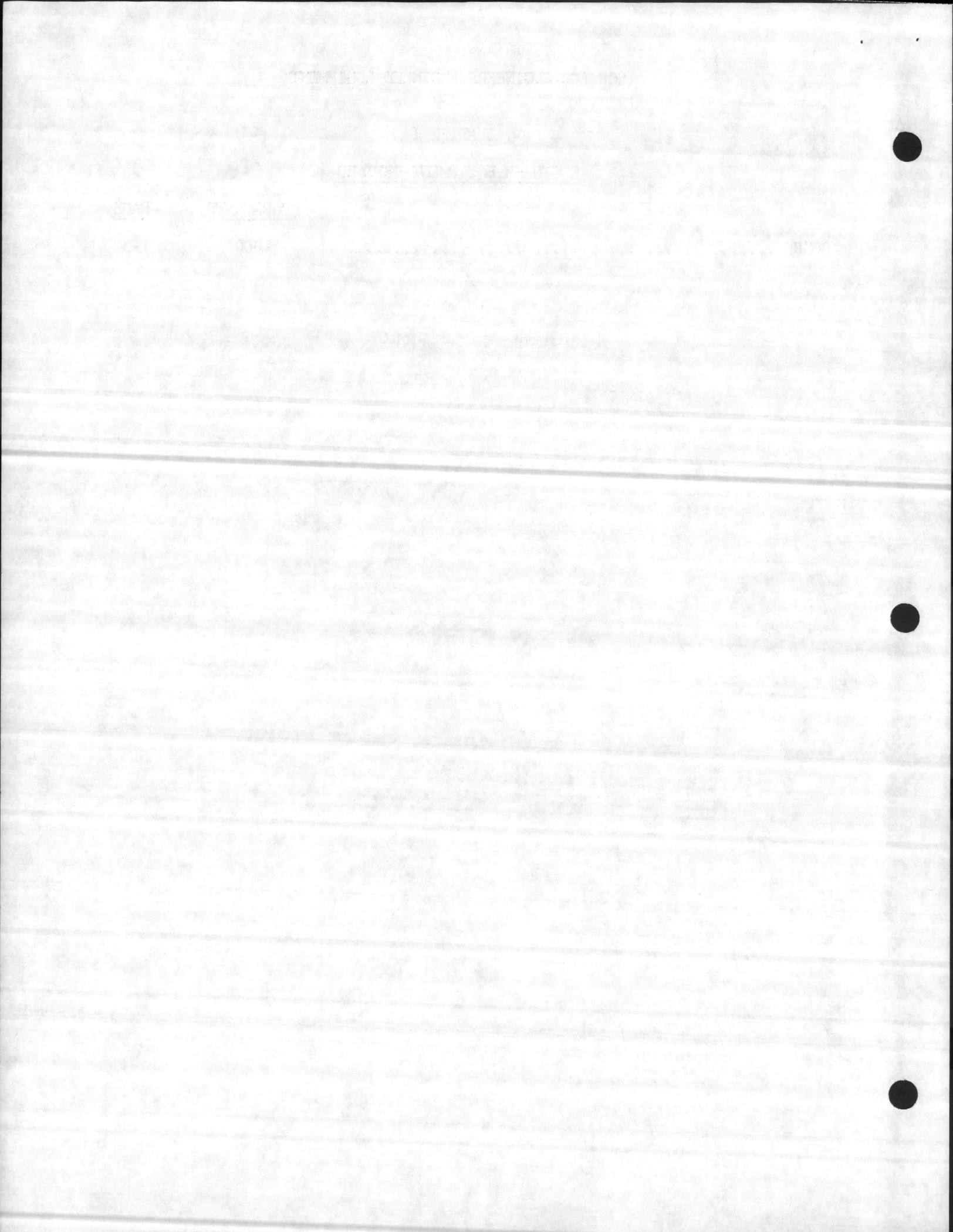


SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 1

ENGINEER EQUIPMENT DEFINED

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 1

ENGINEER EQUIPMENT DEFINED

1000. SCOPE. This Order covers the following types of equipment, which collectively falls into the category of "Engineer Equipment":

a. USMC T/E Engineer Equipment. Items of Engineer equipment include all T/E or Special Allowance Items listed under Type 1 and 3, Engineer portions of NAVMC 1017, USMC Table of Authorized Material (TAM). Included within this category are engine-driven generators common to the support of all communication/electronics equipment and "B" TAM Ground Support Equipment (GSE) in this Command.

b. Other Equipment. At the discretion of the Commander and with approval from this Headquarters, other selected items of equipment may be maintained on the same basis as Engineer equipment when no other logical means of maintaining them are available.

MEMORANDUM FOR THE DIRECTOR

1. The purpose of this memorandum is to provide information regarding the activities of the [redacted] in the [redacted] area.

2. It is noted that the [redacted] has been observed in the [redacted] area on several occasions. The [redacted] is believed to be engaged in [redacted] activities.

3. The [redacted] is believed to be a [redacted] of the [redacted] and is believed to be active in the [redacted] area.

4. It is recommended that the [redacted] be kept under close surveillance and that any further information regarding the [redacted] be reported immediately to the [redacted].

5. The [redacted] is believed to be a [redacted] of the [redacted] and is believed to be active in the [redacted] area.

6. It is recommended that the [redacted] be kept under close surveillance and that any further information regarding the [redacted] be reported immediately to the [redacted].

7. The [redacted] is believed to be a [redacted] of the [redacted] and is believed to be active in the [redacted] area.

8. It is recommended that the [redacted] be kept under close surveillance and that any further information regarding the [redacted] be reported immediately to the [redacted].

9. The [redacted] is believed to be a [redacted] of the [redacted] and is believed to be active in the [redacted] area.

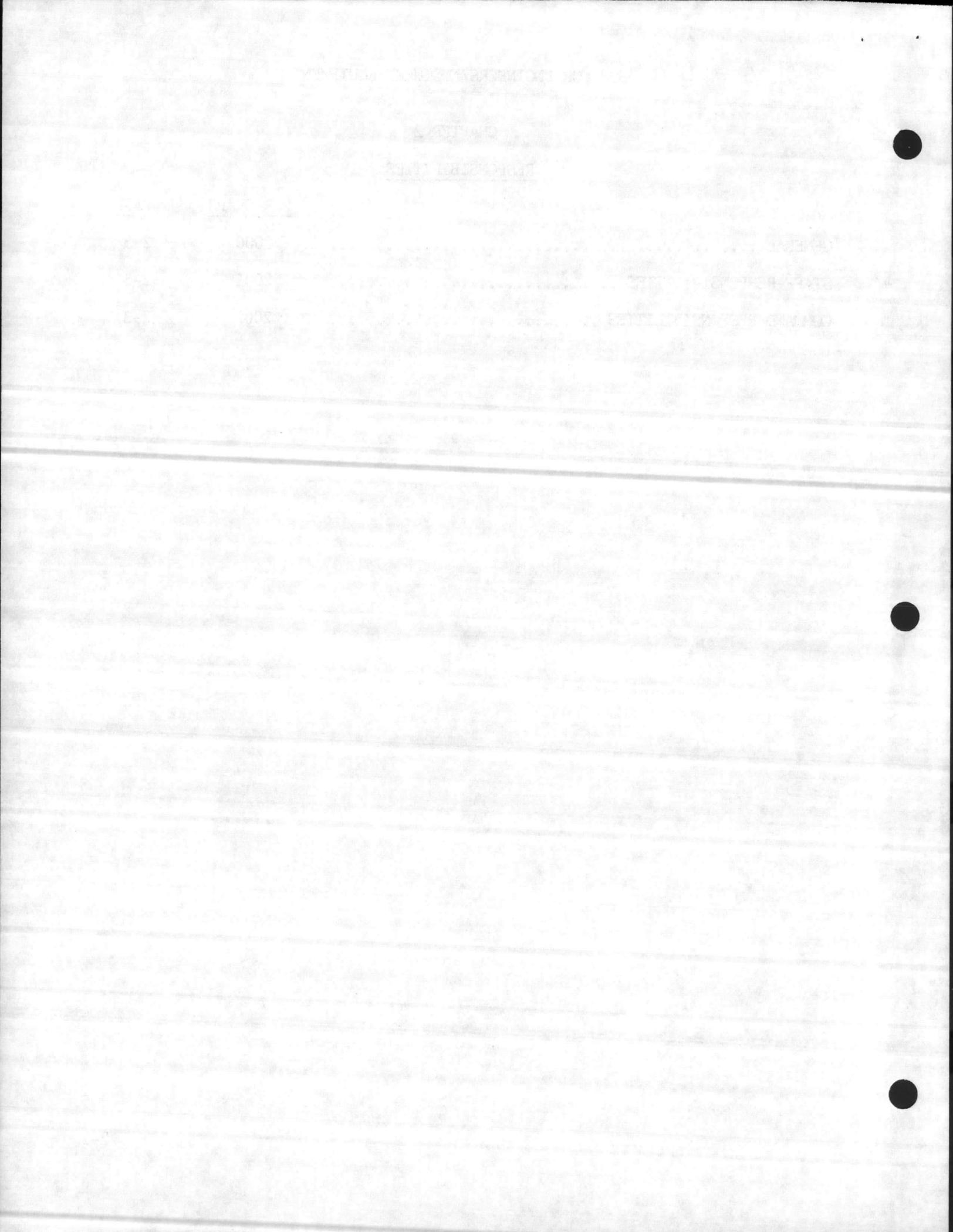
10. It is recommended that the [redacted] be kept under close surveillance and that any further information regarding the [redacted] be reported immediately to the [redacted].

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 2

RESPONSIBILITIES

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 2

RESPONSIBILITIES

2000. GENERAL. Maintenance responsibilities are found in all phases of the supervision and inspections necessary to ensure that the equipment is maintained at the highest possible level of readiness. Every member of a command has a definite maintenance responsibility for the material which is directly or indirectly under his control. Commanders, maintenance personnel, and equipment operators at all echelons must strive conscientiously to prevent deterioration of Engineer equipment and to ensure its continuous efficiency and effectiveness.

2001. STAFF RESPONSIBILITIES. The Wing Engineer is responsible for coordination of the planning, training, and inspections necessary to ensure proper maintenance and operations of the Engineer equipment within the 2d Marine Aircraft Wing.

2002. COMMAND RESPONSIBILITIES

1. Unit Commanders. Unit Commanders are responsible for all phases of first and second echelon maintenance necessary for organic equipment and for equipment in support of their units. Unit maintenance is performed by repair agencies organic to the unit.

2. Equipment Officer. The Equipment Officer is the technical representative of the unit commander; he is responsible for providing technical guidance to his immediate commander and to commanders and maintenance elements of lower echelons throughout the organization. He is responsible for the direction, supervision, and coordination of the activities of the Engineer maintenance unit with regard to administration, performance, operations, maintenance, and repair. He maintains liaison with other officers of the unit to ensure proper functioning of the equipment pool. He is the troop leader of the maintenance activity.

3. Equipment Chief. The Equipment Chief is directly responsible to the equipment Officer and assists him in the supervision of the maintenance organization's administration, operations, and maintenance activities. He is responsible for the conduct and welfare of the enlisted personnel and for providing technical assistance and instruction to them in the performance of their duties.

4. Operators. The equipment operators are responsible for:

a. Performance of daily preventive maintenance on the equipment in their use.

b. Observance of operating, driving, and safety regulations.

c. Performance of first echelon maintenance and assisting in the performance of second echelon maintenance.

d. Maintenance of forms and records as specified herein.

5. Maintenance Personnel. Maintenance personnel are responsible for:

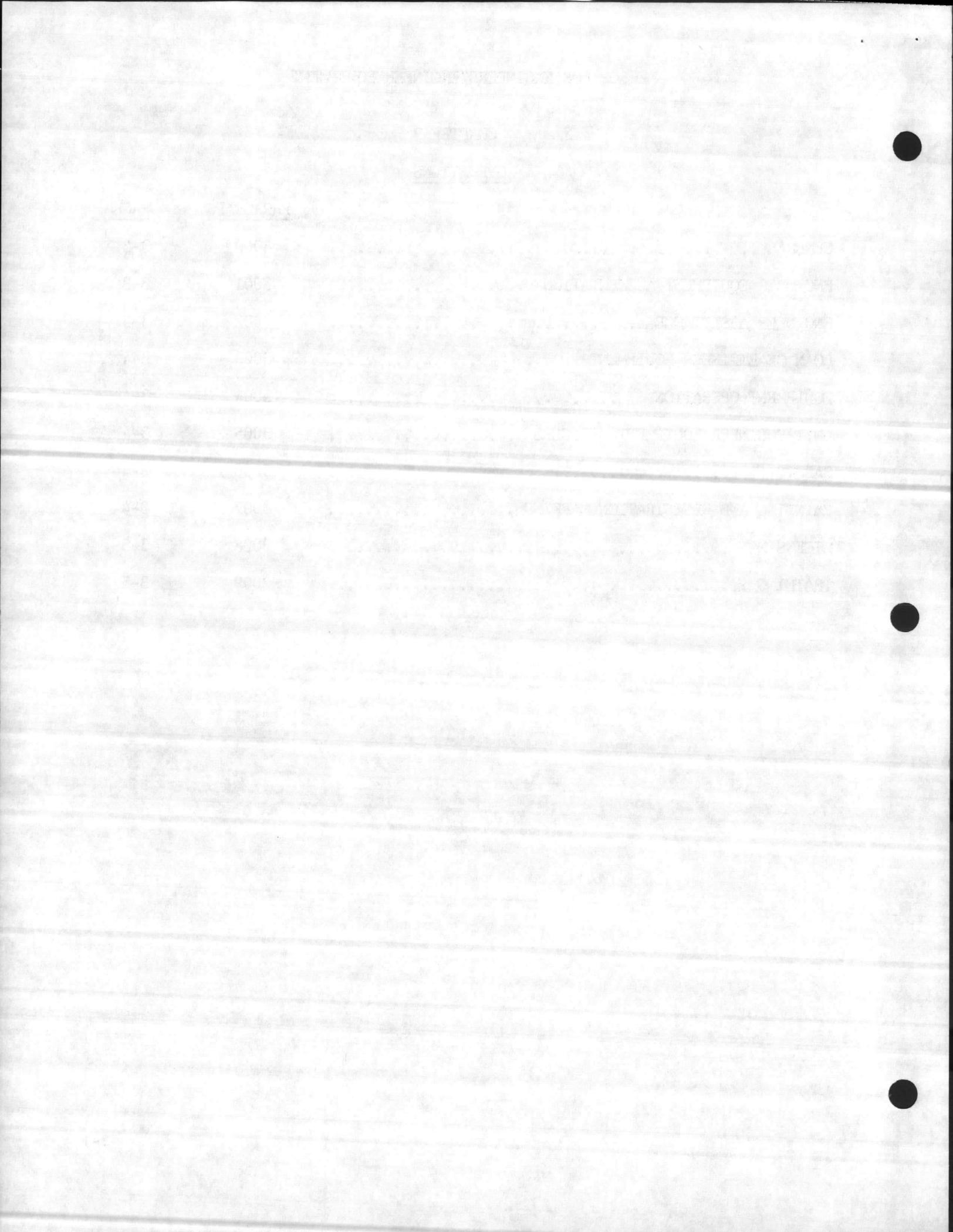
- a. Assisting operators, if required, in the performance of first echelon maintenance.
 - b. Performance of second through fourth echelon maintenance in accordance with the category of maintenance allocated the organization.
 - c. Reporting any lack of preventive maintenance or abuse of equipment.
 - d. Observance of operating and safety regulations within the working area.
 - e. Maintenance of forms and records as specified herein.
6. Administrative Personnel. Administrative personnel are responsible for:
- a. Scheduling equipment repair and preventive maintenance.
 - b. Dispatching equipment.
 - c. Controlling repair parts and tools.
 - d. Maintenance of forms and records as specified herein.

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 3

OPERATIONS

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 3

OPERATIONS

3000. GENERAL

1. Engineer equipment in general support of the 2dMAW is consolidated in WES-27, MWSC-27, to be utilized as a centrally managed/operated pool of personnel and equipment. Requirements not organic to the 2dMAW are provided by the FSSG.

3001. ENGINEER EQUIPMENT AUGMENTATION. Each Group will utilize their organic engineer equipment to the maximum extent possible to perform its assigned missions. Requests for additional equipment to perform assigned missions will be submitted in writing to CG, 2dMAW using Appendix A.

3002. ENGINEER ASSISTANCE

1. Requests for engineer assistance will be classified as "Routine", "Emergency" or "Extended".

2. Routine requests are classified as equipment requirements such as a forklift, crane, or generator required to perform work for a period of 24 hours or less. Routine requests must be submitted to the CG, 2dMAW, Attn: Wing Engineer Officer, utilizing a standard equipment request form. A copy of this standard request form may be reviewed at appendix A. Routine requests will arrive at the G-4 office no later than 1400, the day preceding the day of the mission requirement.

3. Emergency requests are those requests that require an item of Engineer equipment to be used for less than 24 hours. Emergency requests may be submitted with no prior notice at any time. Upon receipt of this type of request a determination will be made by the Wing G-4 (Engineer Officer) as to whether or not a valid emergency exists and if so, whether or not the requested equipment is available and can be dispatched.

4. Extended requests are classified as equipment requirements, construction support, TAFDS support or other engineer assistance required for routine work, and deployments or other contingencies for a period in excess of 24 hours. Extended requests for work of a routine nature may be submitted on the standard equipment request form following the procedures outlined in paragraph 3002.2 above. Requests to support deployments, contingencies or any other type of work other than routine will be submitted in writing through the Chain of Command to the CG, 2dMAW (Attn: G-4 Wing Engineer Officer), see appendix B. Requests must be received no later than 30 days prior to deployment to ensure the providing organization has ample time to prepare for the required support.

5. Engineer Support Required During Non-Working Hours. In the event engineer support is required during evening hours, on weekends or on National Holidays, engineer assets will be requested via telephone from the MWSC-27 duty officer. The Group 27 duty officer may be reached at the following phone numbers 3197, 3549, 2006 and 3590.

3003. Loan of Engineer Equipment

1. Engineer equipment will not be loaned to organizations outside this geographic location without prior approval of the CG, 2dMAW. The following criteria will govern the loan of equipment.

a. Requests for loan of any engineer equipment of a 2 day duration or more, other than standing commitments, will be submitted to CG, 2dMAW (SC-415) in writing utilizing the formatted letter at appendix B.

b. A joint Acceptance Technical Inspection will be performed prior to and after return of all loaned equipment.

c. Evidence of unsatisfactory maintenance or treatment of the equipment during the loan period will be reported to CG, 2dMAW, (SC-415) by speedletter on the same day such evidence is discovered.

d. Licensed operators are the only personnel authorized to operate engineer equipment. Requesting units will note on equipment loan requests if licensed operators are available.

3004. EQUIPMENT OPERATION. The proper operation of engineer equipment is the responsibility of the commander, while appropriate Technical Manuals (TM) delineate procedures for specific items of equipment.

3005. UNIT ENGINEER EQUIPMENT OFFICERS. One of the requirements for an effective maintenance program is a responsible supervisor to manage and coordinate the maintenance effort. Accordingly, each organization possessing engineer equipment, to include the squadron level, will appoint in writing an officer or Staff NCO to act as the unit's Engineer Equipment Officer. The officer designated may hold any MOS; however, a mechanical background or aptitude is preferred. The Unit Engineer Equipment Officer shall be responsible for providing technical support to his immediate commander and to commanders and maintenance elements of lower echelons throughout the organization; he will act as liaison officer with higher echelon maintenance organizations. He will be guided in the performance of his duties by the contents of this Order, and such other directives as may be published by higher authority.

3006. SAFETY. NAVMAT P5100 Safety Precautions for Shore Activities and appropriate operator's manuals set forth safety principles which are of particular value in avoiding accidents and in maintaining a working environment which is conducive to good health and morale. These safety principles as well as good judgement will be exercised at all times when using engineer assets.

3007. PAINTING AND REGISTRATION MARKING

1. Marine Corps Order P4750.3, Painting and Marking of MC Tactical Equipment, will govern painting of all Engineer equipment.

2. Registration numbers will be placed on equipment as indicated in MCO P4750.3, Painting Regulations and Marking of MC Tactical Equipment, and MCO 4035.3, Tactical Marking Procedures for FMF Air Units.

3008. LICENSING

1. No person may operate any item of engineer equipment unless he or she has a valid operator's license. The use of any item of equipment must be authorized by competent authority on an approved operational record form.

a. The U.S. Government Motor Vehicle Operator's Identification Card (SF 46) is the only form that will be utilized to license operators of engineer equipment.

b. No person will be issued an operator's license for an item of engineer equipment unless he or she has satisfactorily completed a proper training course pertaining to that specific item of equipment and has satisfied the requirements of a written and/or performance test administered by an authorized licensing official. Organizations conducting training may issue a learner's permit to a student or on-the-job trainee after he or she completes appropriate preliminary instruction. Evidence of this status will be a Standard Form 46, with the inscription "LEARNER" stamped indelibly across the face of the form and the specified item of equipment indicated on the reverse of the form. The learner's permit authorizes the trainee to operate the equipment specified thereon while they are under direct supervision of the assigned instructor in the prescribed training or licensing area.

c. The Group Engineer Equipment Officer or Utilities Officer will be designated, in writing, as the licensing official for all engineer equipment within a group.

3009. TRAINING

1. A continuing training program will be organized and conducted by all units to insure adequate training and proficiency of personnel engaged in operating and/or maintaining engineer equipment and engine-driven generators. This program will encompass on-the-job and formal MOS training and will include, but is not limited to, the following subjects:

- a. All echelons of maintenance authorized respective organizations
- b. Equipment operation
- c. Safety
- d. Maintaining engineer equipment records

2. Commanders of non-engineer units should take every advantage of local engineer and maintenance activities in order to supplement the technical training of equipment operators and maintenance personnel. Requests for such training will be submitted to the unit concerned via this Headquarters.

3. Training for operators of engine-driven generator sets that are components of TAM electronics sets will be integrated into the training program for communications personnel.

4. As a general rule, maintenance personnel must be qualified operators of the equipment they are required to maintain. This is particularly essential in the

maintenance of generators. Accordingly, unit training requirements for maintenance personnel will include operator training.

5. Technical training of engineer personnel will be conducted in accordance with MCO P4790.2 (Chapter 2) and MCO P1200.7, MOS Manual.

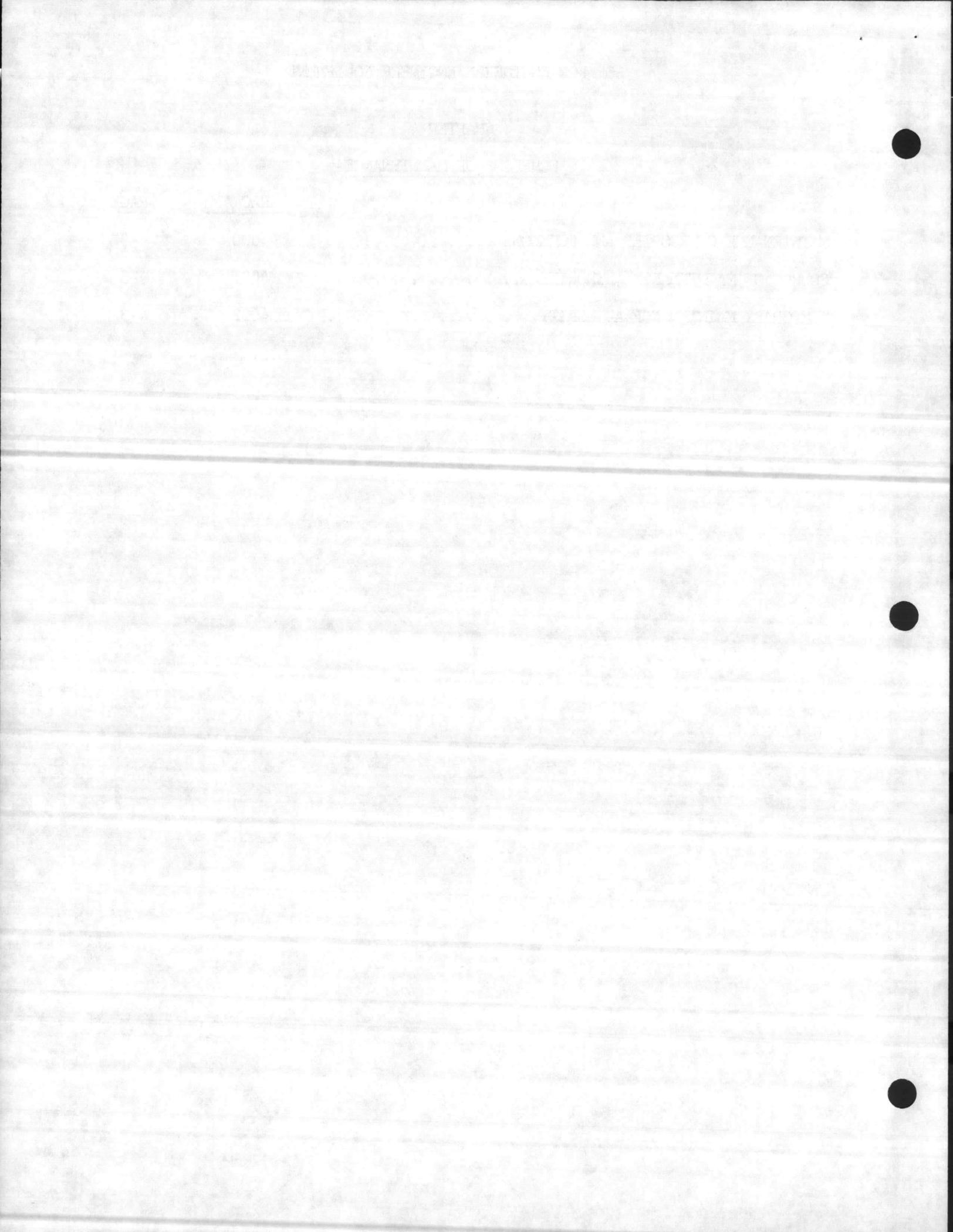
6. The Wing Engineer Squadron will conduct classes for groups requiring trained equipment operators. Requests for this type of training should be submitted to this Headquarters. Items usually operated by non-engineer personnel are 6000 lb and 4000 lb capacity forklifts. Ordnance personnel can also be licensed for 7 1/2 ton cranes.

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 4

ECHELONS OF MAINTENANCE

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CHAPTER 4

ECHELONS OF MAINTENANCE

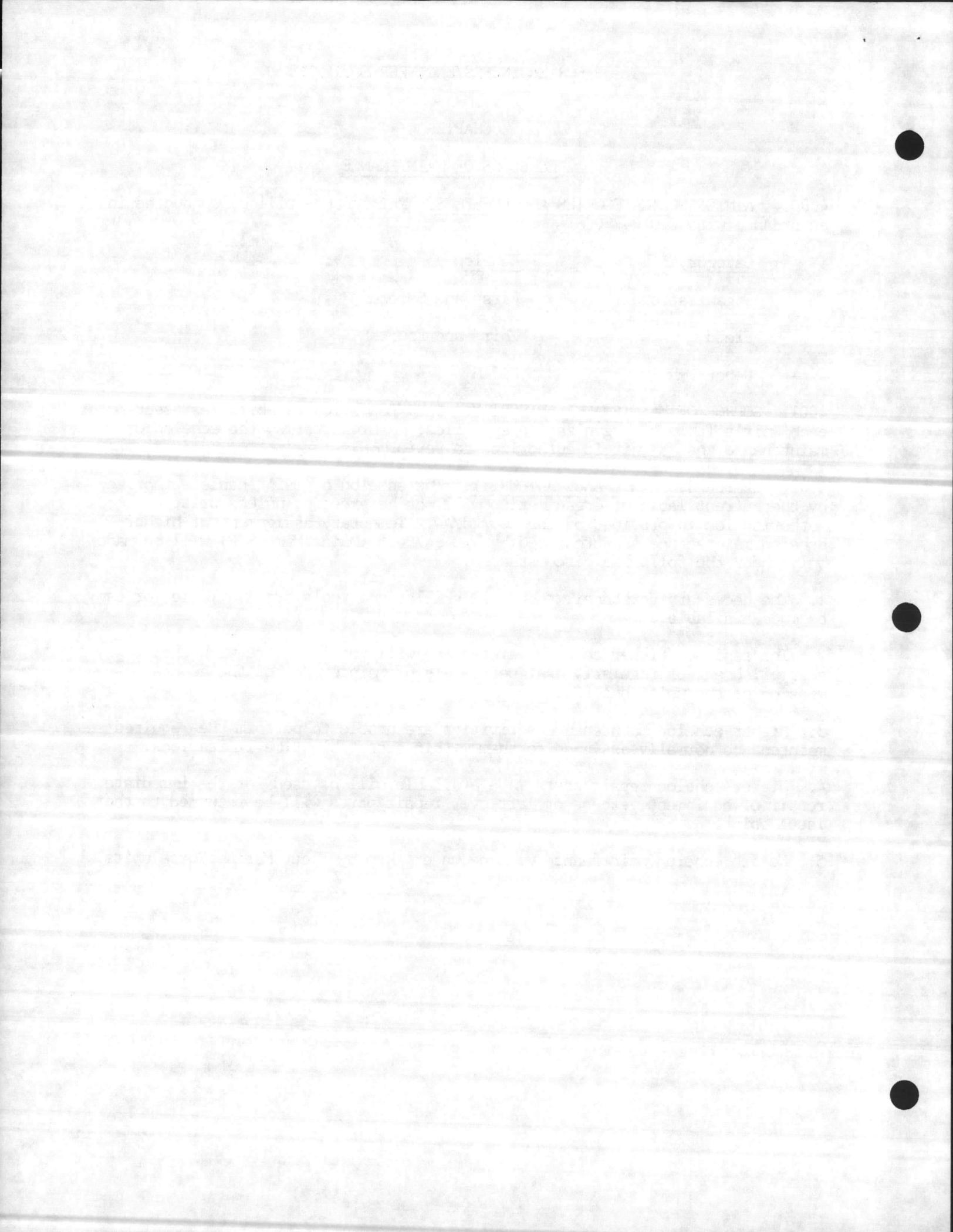
4000. MAINTENANCE CATEGORIES AND ECHELONS. Maintenance will be conducted in accordance with WgO P4790.8.

<u>Category</u>	<u>Echelon</u>
Organizational	First and Second
Field	Third and Fourth
Depot	Fifth

4001. SOURCE OF MAINTENANCE AUTHORITY. The "Logistics Capabilities" section of each unit's Table of Organization specifies, in broad terms, the echelon of maintenance that a unit is authorized to perform.

4002. TEMPORARY MAINTENANCE AUTHORITY. The echelon of maintenance authorized by the current Table of Organization will not be exceeded unless written authorization is provided by the CG, 2dMAW. Temporary assignment of higher echelon maintenance as authorized by WgO P4790.8 (Maint Mgmt SOP) will be made only under the following circumstances:

1. The necessary personnel, technical skills, and tools are available, or can be made available.
2. The assigned higher echelon maintenance will not interfere with the accomplishment of regularly assigned levels of maintenance or the general mission of the unit concerned.
3. Higher echelon maintenance activities are unable to perform the required maintenance normally assigned to them within acceptable time limitations.
4. Higher echelon repair parts made available will be used for the immediate repair of equipment; excess or left-over repair parts will be returned to the issue point.
5. No 5th echelon maintenance will be undertaken by Fleet Marine Force units.



SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 5

MAINTENANCE PROCEDURES

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CHAPTER 5

MAINTENANCE PROCEDURES

5000. ESSENTIALS OF THE MAINTENANCE PROGRAM

1. The essentials of a sound maintenance program include the effective and economic utilization of time, facilities, manpower, money, and material. An effective maintenance program requires:

- a. Command attention.
- b. A responsible supervisor to manage and coordinate the maintenance effort.
- c. Maintenance responsibilities and procedures that are efficiently organized and clearly defined.
- d. A records system that is up-to-date and accurate.
- e. A library of required publications be maintained.
- f. That a training program for supervisory, operator, and maintenance personnel be conducted on a continuing basis.
- g. That supply support be responsive and capable of anticipating and meeting the demands of the maintenance system.
- h. Coordinated and close liaison between all elements in the maintenance/supply chain.
- i. Availability of necessary funds to ensure that the means required to sustain the maintenance program are available on a timely basis.
- j. Maintenance of appropriate levels of repair parts and other supplies to support operations.
- k. The submission of quality deficiency reports so that higher authorities can take timely action to correct deficiencies which limit or prohibit full utilization of the equipment.
 1. The submission of timely and adequately justified recommended changes to the Table of Organization.

5001. PREVENTIVE MAINTENANCE

1. Preventive maintenance is the most important single phase of maintenance operations and is one of the most critical and difficult responsibilities of the command. Effective preventive maintenance decreases the requirements for extensive repair at higher echelons, contributes directly to savings in time, personnel, money and increases operational availability of equipment. Preventive maintenance consists of the following scheduled services, which are recorded on the forms listed in TM 4700-15/1E, Equipment Records Procedures.

a. Daily "A" Service. Performed by the assigned operator of the equipment. It normally consists of the "before", "during", and "after" services required to keep the equipment in sound operating condition.

b. Lubrication "L" Service. Performed by organizational maintenance personnel. This service normally consists of periodic lubrication services based on hours of operation or lapse of time, usually on a weekly basis.

c. Quarterly "Q" Service. Performed by organizational maintenance personnel. This service includes a quarterly technical inspection as well as adjustments, seasonal checks, and lubrication service. The quarterly technical inspection will be accomplished utilizing the form "Worksheet for Quarterly Maintenance and Technical Inspection for Engineer Equipment", NAVMC 10560.

2. The requirements for performing specific preventive maintenance services vary according to the type of equipment involved. Specific instructions are contained in the Technical Manual which applies to each model and type of equipment.

3. Preventive maintenance services are the primary responsibility of either the using unit or the unit which has custody of the equipment. When equipment is evacuated to higher echelon for repair or disposition, it is the responsibility of that echelon to perform the required preventive maintenance services. It is not to be construed, however, that the using organization will cease to have responsibility or interest in whether or not preventive maintenance services are properly accomplished on their equipment when it is in a maintenance facility or on temporary loan to another organization.

5002. APPLICATION OF MAINTENANCE ECHELONS

1. Each echelon of maintenance is authorized to perform any of the repair operations or functions of all lower echelons. Each organization will, to the maximum extent possible, accomplish repair of its own equipment within the echelons of maintenance authorized. Where the repair of an item of equipment is above an organization's authorized capability, or when the means to accomplish the repair are not available within the organization, the item of equipment will be reported to the next higher echelon with a request for contact maintenance team support or evacuation of an item of engineer equipment to the next higher echelon.

a. The following form will be completed and forwarded with the equipment, unless otherwise directed by this Headquarters:

(1) Equipment Record Folder, NAVMC 696D.

(2) Equipment Repair Order (ERO) NAVMC 10245. The ERO, whether for repairs within the group or for evacuation to higher echelon units, must be reviewed by and signed only by the personnel authorized in writing at the maintenance activity.

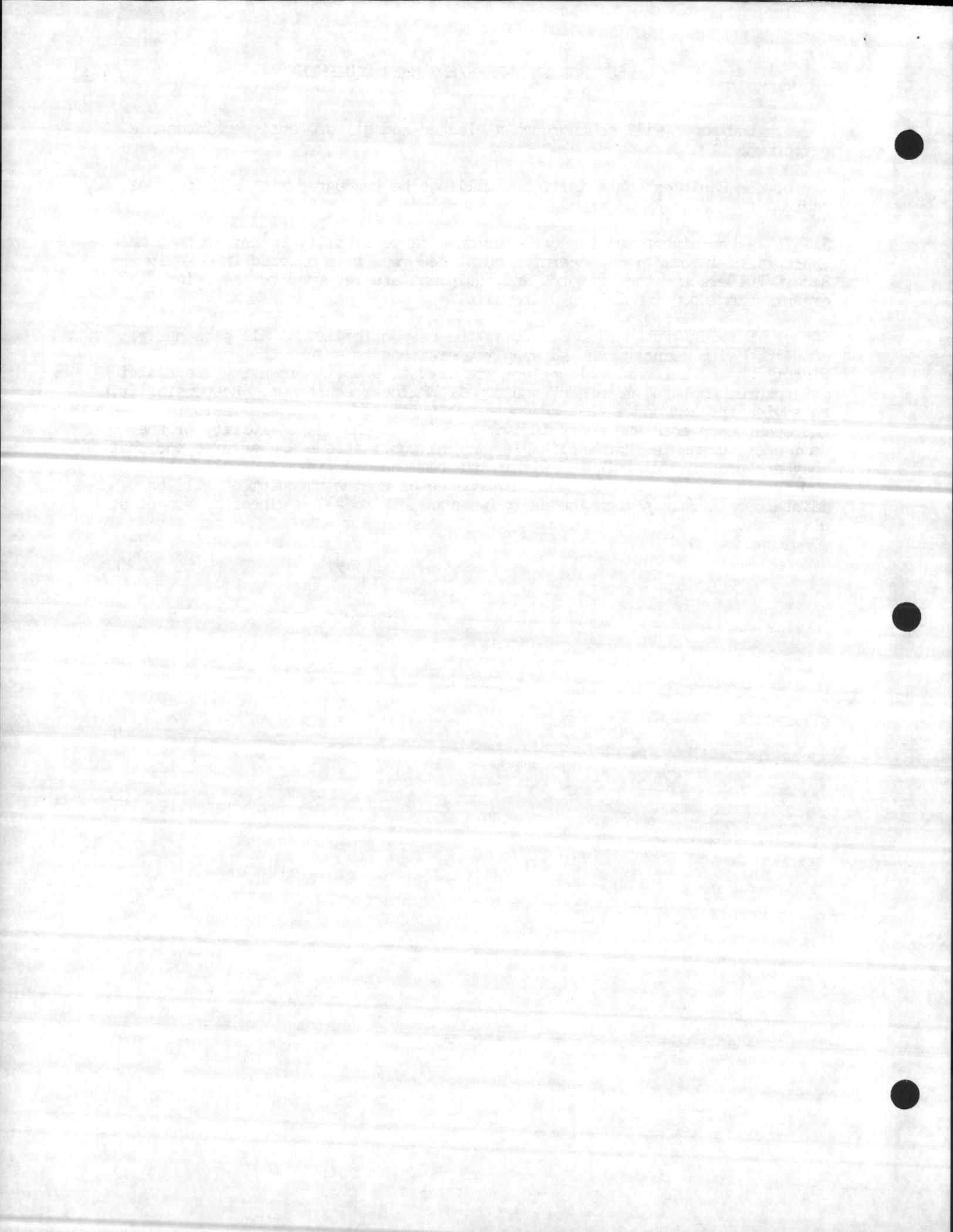
(3) Work Sheet for Preventive Maintenance and Technical Inspection of Engineer Equipment, NAVMC 10560.

b. Equipment will be thoroughly cleaned and all preventive maintenance performed.

c. On Equipment Material (OEM) will not be evacuated with end items of equipment.

2. It is the higher maintenance echelon's responsibility to ensure that the appropriate information concerning completed repair is entered into Equipment Record Folders and that records and equipment are returned to the using organization upon completion of repairs.

5003. TECHNICAL PUBLICATIONS. It is the responsibility of all personnel concerned with maintenance and supply operations to ensure that proper directives and current publications are used to properly identify, requisition or procure, operate, maintain, and repair Engineer equipment. Responsibilities to advise the commander that adequate publications are not available is incumbent upon each and every individual. It is the responsibility of the commander to ensure that applicable current publications are secured and that they are properly distributed within his command. A library of all matter applicable to the operation and maintenance of engineer equipment will be maintained in such a location as to be available to all engineer personnel at all times.

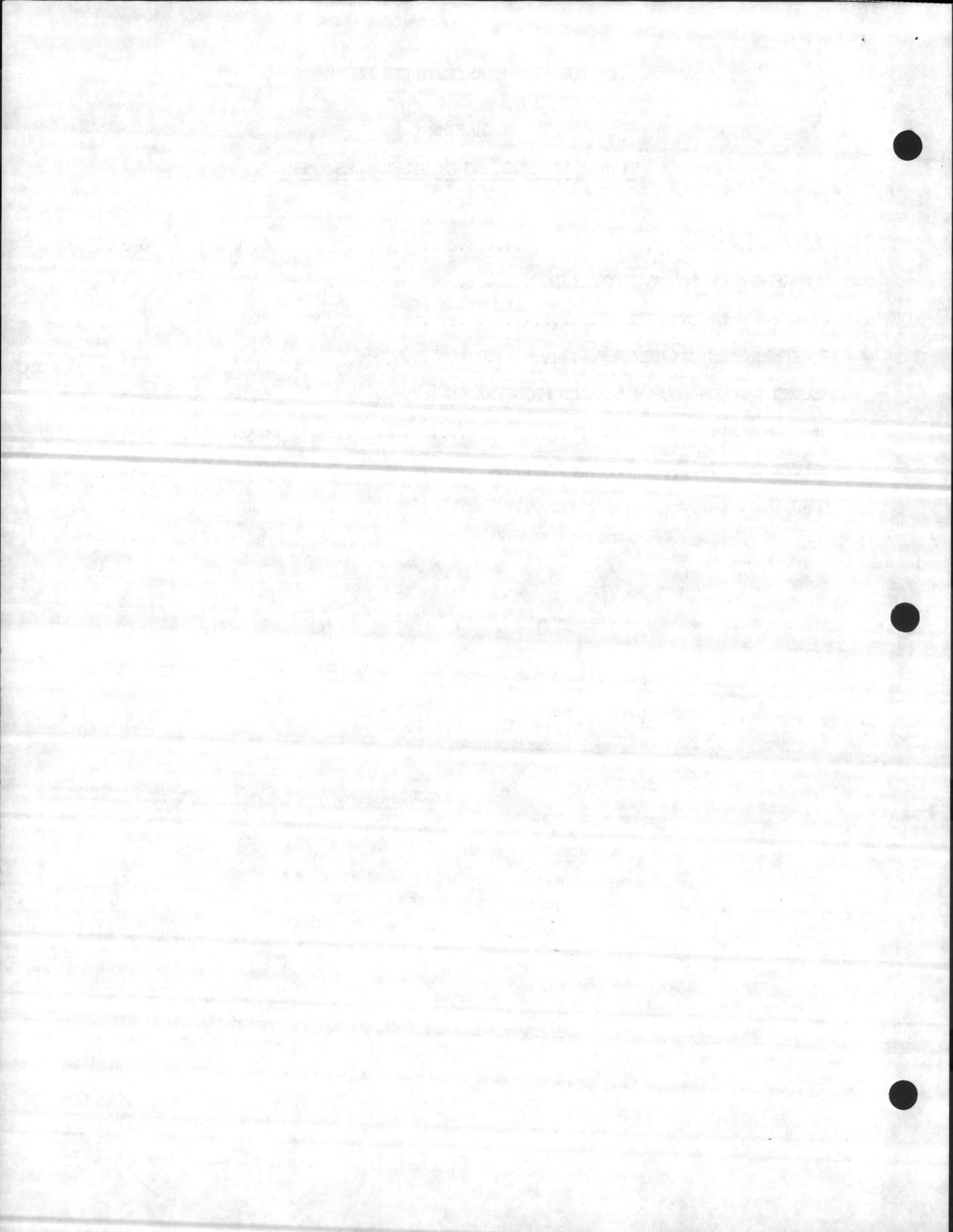


SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 6

MOBILE ELECTRIC POWER GENERATORS (MEP)

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 6

MOBILE ELECTRIC POWER GENERATORS (MEP)

6000. GENERAL. Based on the policy to assign specific maintenance responsibilities for "precise power" engine generators, all of these items of equipment are catalogued in the Engineer portion of the Table of Authorized Material (TAM, NAVMC 1017), regardless of the functions performed or equipment supported. However, all functions pertaining to engine generators are not confined to a single classification or technical field. Because of wide usage, generators become the responsibility of personnel in many MOS fields. Most important of these is the operator who has day-to-day responsibility for operation, first echelon maintenance and basic input into equipment records. The operator may be from any occupational field, providing he has been assigned, trained and licensed in the duties and responsibilities associated with a particular generator. Since the operator may have little or no mechanical or electrical background, particular command attention is required to ensure that he is properly trained, that accurate equipment records are maintained, and that the equipment is properly operated and maintained.

6001. MOBILE ELECTRIC POWER GENERATOR OPERATOR TRAINING. To ensure the availability of adequately trained operators, all units of the 2d Marine Aircraft Wing will incorporate engine generator operator and preventive maintenance training in the scheduled training program conducted by each respective command. Command attention and supervision by qualified personnel in the proper methods of operating and maintaining engine generators cannot be over-emphasized. All prospective generator operators will attend the Wing MEP school for training and licensing.

6002. OPERATOR'S LICENSE FOR MEP. A license is required for all engine generator operators. The requirements for the issuance of an operator's license are prescribed in paragraph 3008 of this Order.

6003. FIRST ECHELON MAINTENANCE. First echelon maintenance is the responsibility of the assigned operator and is executed under the supervision of his unit.

6004. SECOND THROUGH FOURTH ECHELON MAINTENANCE

1. Second through fourth echelon maintenance is performed through engineer equipment maintenance channels and is governed by the logistics capabilities stated in the unit Table of Organization (T/O). This maintenance will be performed on engine generators by engineer personnel generally as follows:

Responsible MOS

1341
1141/1142
1142
1316

Assembly

Engines
Generators
Instruments and Controls
Housing Enclosure

2. The above assignment of MOS responsibility does not preclude the utilization of communication-electronics repairmen, avionics repairmen or other technicians to assist engineer personnel in the repair of engine generators at each echelon of maintenance.

6005. MOBILE ELECTRIC POWER SCHOOL. The Wing Engineer Squadron is tasked with establishing and running the 2dMAW Mobile Electric Power (MEP) School. This school is to train personnel to properly operate and maintain, by First Echelon Maintenance, 2dMAW generator assets. Quotas to the MEP School may be obtained by forwarding a request to the CO, MWSG-27 (ATTN: S-3) via this Headquarters. Upon the satisfactory completion of the MEP School, the individual Marine will be issued a license.

6006. SAFETY. The following safety measures apply to engine driven generators:

1. Electrical components of generators will not be cleaned with water or steam. Cleaning solvent or compressed air may be used.
2. Generators will be provided with suitable protective covering during periods of inclement weather. Generators will be dried as soon as possible when the weather permits.
3. Generators will be grounded at all times while in operation. Fuel lines will not be used for grounding purposes.
4. Voltage and wye-delta change panels and jumper straps on generators will be set and changed only by qualified engineer maintenance personnel.
5. Those generators not trailer-mounted will be installed on pallets or other suitable means to keep them raised off the ground.
6. Generator sets will only be operated when level and adequately ventilated.
7. Accident reports will be submitted in accordance with TM 4700-15/1E Chapter 3.

6007. LOAD TESTING

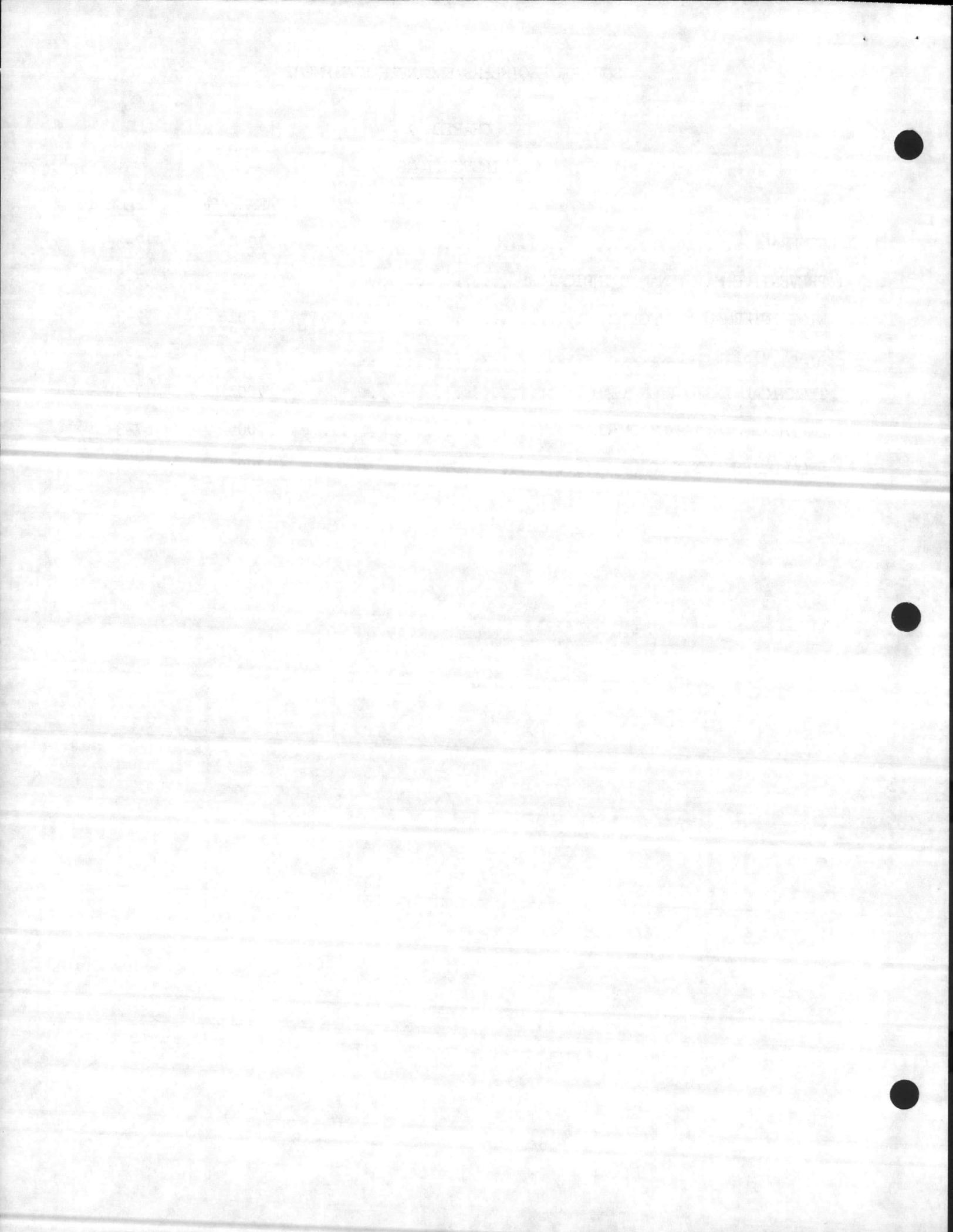
1. All units having 700 series generators will load test the generator semiannually in accordance with the instructions outlined in the TM for the particular generator to be tested. Due to the limited assets of the dummy load generator set, the requirement for the Long Term Steady State Stability Test is waived.
2. If the load test is not within the requirements stated in the TM, the generator will be repaired.

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 7

INSPECTIONS

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SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 7

INSPECTIONS

7000. GENERAL

1. It is the Commander's responsibility to conduct inspections in order to keep himself informed of the status of Engineer equipment under his cognizance. The members of the Wing Engineer Staff will advise and assist all Commanders when such assistance is requested in resolving problems that cannot be handled on the unit level. Maintenance inspections should be conducted periodically to determine the following:

- a. Combat readiness of all items;
- b. The effectiveness of the organization's supply procedures;
- c. The effectiveness of the organization's program of preventive maintenance;
- d. The proficiency of maintenance personnel.

7001. PREVENTIVE MAINTENANCE INDICATORS

1. Preventive maintenance indicators are specific items selected for inspection to provide a sampling of the status of preventive maintenance on each item of equipment. These indicators are intended for use by non-specialists and are not a substitute for detailed inspections by technically qualified personnel. Detailed preventive maintenance indicators for items of engineer equipment may be found in the following publications:

- a. Preventive Maintenance Guide for Commanders, DA Pamphlet 750-1.
- b. Technical Manual (TM) applicable to the end item.

7002. WING INTERNAL INSPECTION. Periodic inspections of squadron level engineer equipment will be conducted in conjunction with the 2dMAW Internal Inspections. These inspections will be conducted in accordance with WgO 5041.1, Procedures for Inspection of Units within the 2dMAW, at those times designated by the Wing Inspector.

7003. STAFF VISITS. Formal and informal staff visits will be conducted periodically by the Wing Inspector and other members of the General and Special staff.

7004. TECHNICAL INSPECTION TEAM. Technical inspection teams to assist Commanders may be composed of personnel from any organization who have the necessary technical qualifications to conduct the inspection required. Requests in writing for such assistance will be directed to the Wing Engineer at least seven (7) working days prior to the desired inspection.

7005. ON THE SPOT INSPECTION/CHECK. The Wing Engineer Officer/Chief shall periodically conduct on the spot inspections/checks on 2dMAW engineer equipment. These spot checks will normally be conducted while the equipment is in actual

operation and/or on the job site. Operators of Mobile Engineer equipment to include forklifts, cranes, graders, etc., may be cited by the Wing Roadmaster if traffic or safety regulations are being violated.

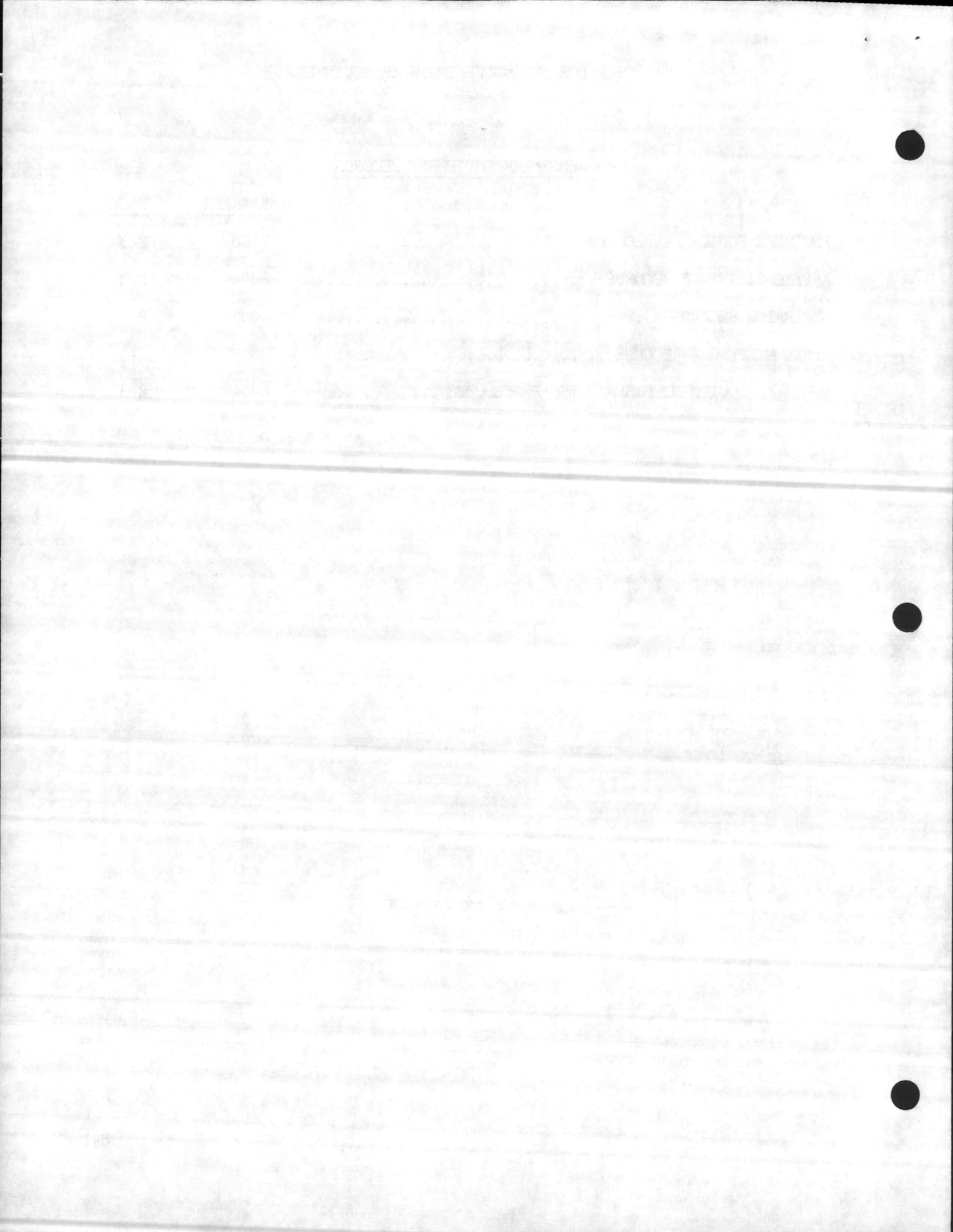
7006. PROCEDURES AND RECORDS. The procedure and records required by TM 4700-15/1E, Equipment Record Procedures, will apply to all Wing Engineer Equipment Inspections.

SOP FOR ENGINEERS/ENGINEER EQUIPMENT

CHAPTER 8

ENGINEER EQUIPMENT RECORDS

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CHAPTER 8

ENGINEER EQUIPMENT RECORDS

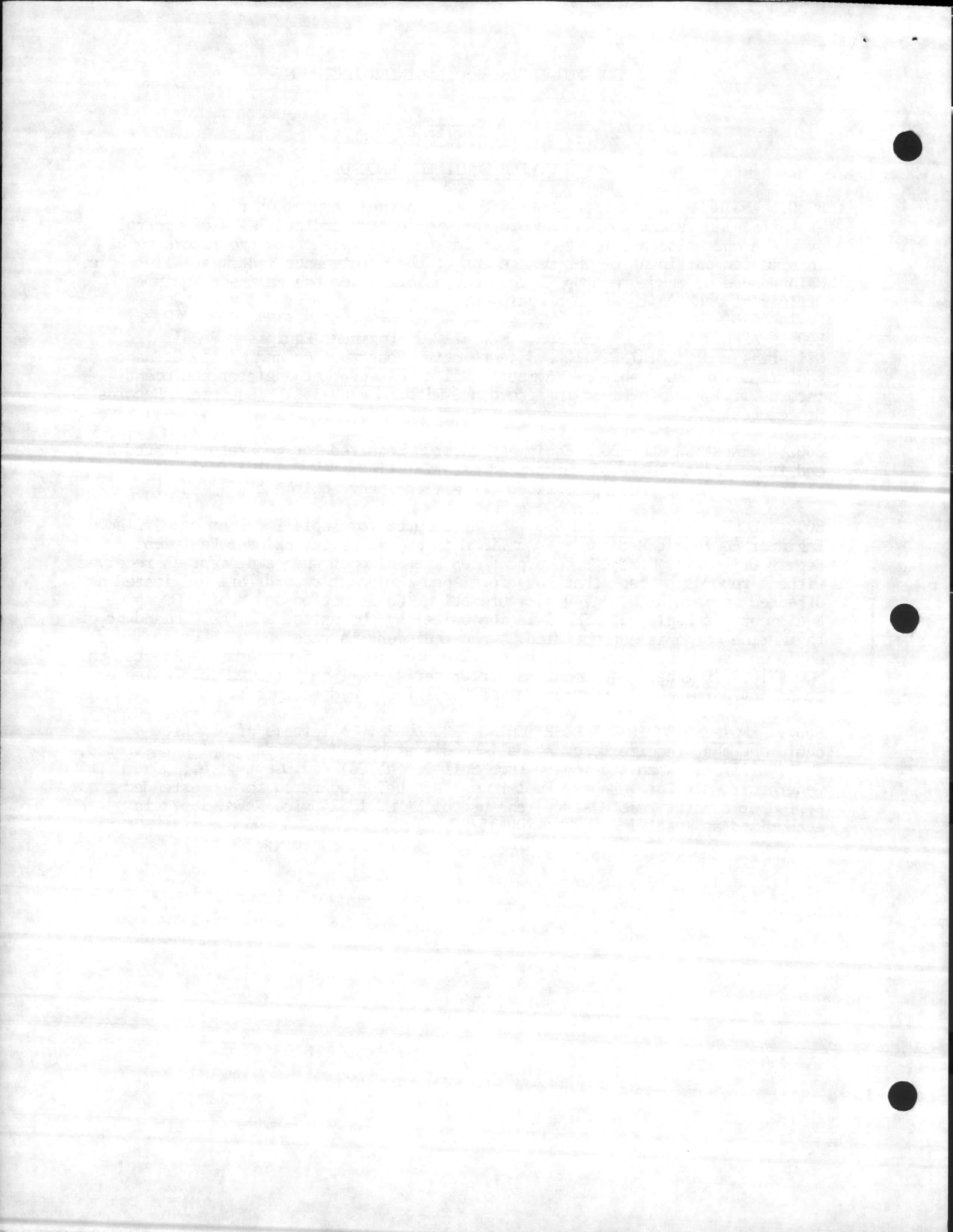
8000. ENGINEER EQUIPMENT RECORDS SYSTEM. Engineer equipment records are essential management tools. Records provide a standardized means of control over the operation and maintenance of Engineer equipment and the recording of information pertinent to the management of the maintenance system at all levels. Maintenance of these records is the responsibility of the Engineer Equipment Officer of each unit assigned equipment.

8001. APPLICABILITY OF RECORDS. MCO 4710.2 (Engineer Equipment Repair Criteria) and NAVAIRINST 11240.3 (Automotive Construction and Mobile Ordnance Equipment for Deployable FMF Aviation Units) direct that engineer equipment records will be maintained in accordance with TM 4700-15/1E (Equipment Records Procedures).

8002. GENERATOR RECORDS. Equipment records required for generators listed as end items in the Table of Authorized Material (TAM, NAVMC 1017), are specified to be the same as those prescribed for all engineer equipment.

8003. LOST, MISPLACED RECORDS. The procedures for replacing lost or misplaced Engineer Equipment Records are outlined in MCO 4710.2, (Engineer Equipment Repair Criteria). These same procedures are followed when equipment is received without records, except that Navy furnished equipment records are originated as directed in NAVAIRINST 11240.3, (Automotive, Construction and Mobile Ordnance Equipment for Deployable FMF Aviation Units) by the units, and the Commandant of the Marine Corps is not notified. When equipment is received without engineer equipment records, or records are misplaced or lost, the procedures directed in MCO 4710.2 (Engineer Equipment Repair Criteria) will be followed in opening a temporary/permanent folder for Marine Corps furnished equipment.

8004. ENGINEER EQUIPMENT DISPATCHING PROCEDURES. All items of engineer equipment that require records shall be dispatched in accordance with Chapter 3, TM 4700-15/1E. When stationary (non Self-Propelled) equipment (i.e., Generators, Air Compressors, Fuel Pumps) are being operated for an extended period of time at remote sites, the use of NAVMC 10524 vice NAVMC 10523 is authorized as specified in TM 4700-15/1E.



SOP FOR ENGINEERS/ENGINEER EQUIPMENT

APPENDIX A

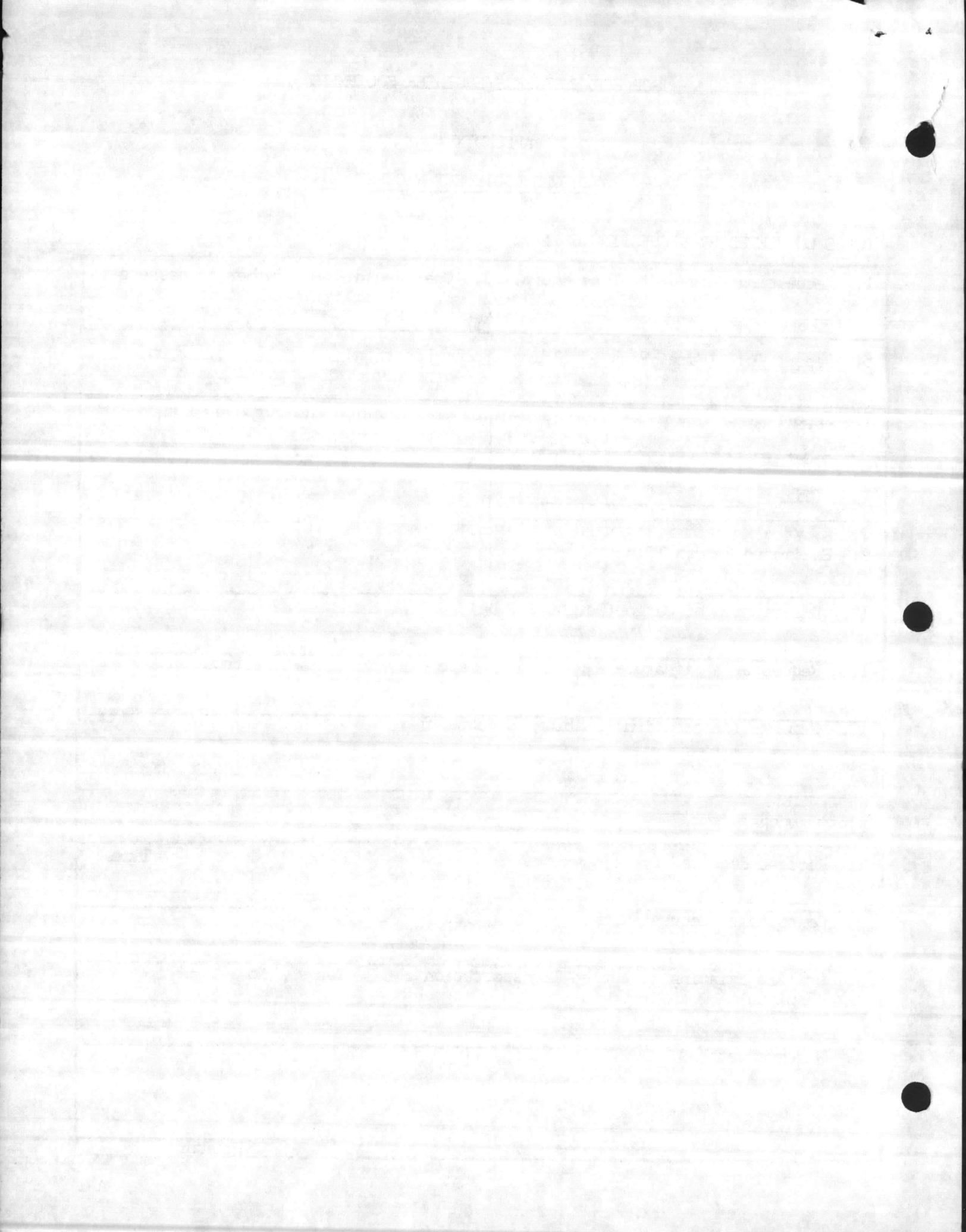
VEHICLE/EQUIPMENT REQUEST

TO BE COMPLETED BY REQUESTING UNIT:

1. Requesting Unit	2. Type Equip.	3. Oper Req'd. Yes No	4. Number of passengers
5. Report To: (Name, Rank, Building, Room, Location)			6. Phone
7. Report Date: _____ Time: _____		8. Destination and Purpose	
9. Estimated Return Time			
10. Description of Cargo (Weight & Cube)			
11. Requester's Signature & Rank		Date	Phone
12. Remarks (Information Relating to Request)			

FIRST ENDORSEMENT:

1. Request Received By:	Date	Time
2. Consolidate Request With:	Yes No	
3. Utilize Existing Scheduled Transportation (Explain)	Yes No	
4. Recommendations:		
_____ Signature		



SOP FOR ENGINEERS/ENGINEER EQUIPMENT

APPENDIX B

HEADING

From: Commanding Officer
To: Commanding General, 2d Marine Aircraft Wing (Attn: G-4 Wing Engineer)

Subj: Engineer Assistance; request for

Ref: (a) WgO P11275.1D
(b) (Other references if applicable)

Encl: (1) (Drawing, Sketch, plans if required)

1. In accordance with reference (a), request that the following engineer assistance be provided.

a. Engineer Assistance Required. (State what type of engineer assistance is needed. Example: 600 lb forklift; construction of boxes; Limited Technical Inspections; technical schooling; etc.)

b. Support Period. (State when the assistance is required. Example: 0900, 1 March 1980 to 1700 3 March 1980.)

c. Purpose of Support: (State the reason for support requested. Example: 6000 lb forklift is needed to move supplies in supply warehouse; construction of 31 cu. ft. mount out boxes for the Squadron mountout; Limited Technical Inspection Team is requested for an inspection of Engineer equipment; schooling required for 10 generator operators in this squadron)

d. Report To. (State building number to report to, individual to report to, time to report. Example: Report to, SSgt JONES, building 265, at 0830, 4 March 1980.)

e. Additional Information. (Add other information as required. Example: Equipment operators will be provided; material will be provided for further information contact the S-4 Officer Building 1234, telephone extension 5678.)

(Signature)

