

CHAPTER 3 MAINTENANCE OPERATIONS

3-1. General. To ensure the most cost-effective use of maintenance resources, the economic repairability of unserviceable personal property will be determined prior to the initiation of any action to restore the personal property to a serviceable condition.

3-2. Personal Property Evaluations.

a. Unserviceable personal property, or personal property needing expensive repairs will be evaluated using equipment maintenance and serviceability standards. This evaluation may be used to determine if the unserviceable condition is the result of other than fair wear and tear. When the determination is made to repair or replace this item, a DA Form 3953 (Purchase Request and Commitment) will be submitted to include a justification statement supporting the decision.

b. When the evaluation is in conjunction with a Report of Survey and the actual cost cannot be determined, an itemized listing of the Estimated Cost of Damages (ECOD) will be included. Instructions for preparing an ECOD are found in DA PAM 738-750.

c. Equipment evaluations should become part of the history jacket.

3-3. Controlled Exchange. **Controlled exchange is authorized only when it meets the criteria below** and is approved in writing (including electronic mail or similar means), by the commander or designated representative of the organization performing the controlled exchange action.

a. Required serviceable parts, components and assemblies cannot be obtained through repairable exchange, maintenance (repair and return), or supply channels in time to meet mission requirements. The maintenance officer must ensure that a valid request has been submitted to replace the unserviceable item prior to using controlled exchange procedures.

b. All the unserviceable, repairable materiel involved is owned or under control of the activity performing the controlled exchange action.

c. The maintenance effort required to restore all the unserviceable, repairable personal property to a full mission capable condition is within the capability of the activity performing the controlled exchange.

d. The action will immediately restore the unserviceable, repairable materiel involved to a fully operable condition.

e. Such action will not degrade any of the materiel involved to an uneconomically repairable condition.

f. Actions are immediately taken to prevent further degrading of materiel from weather or other adverse conditions. The activity performing the controlled exchange will take prompt action to restore the unserviceable materiel to a fully capable condition.

g. Approved in writing (including electronic mail or similar means) by the commander or designated representative of the organization performing the controlled exchange action.

h. Controlled exchange is only authorized to be performed by internal maintenance personnel. Materiel from controlled exchange will not be provided when the equipment is at contract maintenance or other outside activities.

3-4. Materiel Records and Reports. Materiel records and reports for maintenance management will be prepared and maintained as prescribed in EP 750- 1-1. These maintenance forms should be phased in over a 6-month period of time beginning on the effective publish date of this regulation. See your activity publications officer for ordering information.

3-5. Contract Maintenance. USACE activities may use competitive private enterprise for maintenance support consistent with effective and efficient accomplishment of USACE programs and missions. Contract maintenance will not be used when:

a. Contract maintenance support will result in higher cost than the support provided by the Army, DOD and other Federal agencies within a reasonable vicinity and time constraints. The commander is responsible for determining the distance (“reasonable vicinity”) and time constraints based on mission needs and a location survey of available resources.

b. The use of contract maintenance transfers the management responsibility outside the activity requesting support.

3-6. Interservice and Intraservice Maintenance Support.

a. Interservice and intraservice support agreements will be used to provide maintenance support services when:

(1) This means is the least costly to the government.

(2) Materiel to be supported is common to another service.

(3) The supporting agency or component has the available capability to render timely support.

b. Interservice and intraservice support agreements will not be used to document transfer of responsibility for the maintenance function from one DOD activity to another.

3-7. Materiel Warranty Program. Materiel under warranty will be identified and maintained in accordance with terms of the warranty, and records will be maintained by the maintenance officer or designated representative.

a. As a minimum, maintenance procedures recommended by the equipment manufacturer will be scheduled, and performed throughout the equipment's warranty program.

b. Military standard equipment under warranty will follow the procedures outlined in EP 750-1-1 and DA PAM 738-750.

3-8. Duplicate Facilities. When additional facilities are needed to support maintenance operations, with the exception of personnel, local DOD activities and Federal agency will be surveyed to verify whether they have additional capability prior to referring this issue to HQUSACE (CELD-MS).

3-9. Oil Analysis Program (OAP). The objectives of an OAP are to improve readiness rates, promote safety, detect impending component failure and conserve lubricating and hydraulic fluids by applying on-condition oil changes (OCOC). An OAP that uses OCOC is mandatory for all USACE activities.

a. On-condition oil change. An oil change directed by the Army Oil Analysis Program laboratory as a result of finding relative to the condition of the oil and its lubricating capability.

b. Army Oil Analysis Program (AOAP) Participation. Participation in the AOAP is mandatory for equipment listed in Tables 4-2 thru 4-7 of DA PAM 738-750.

c. Equipment meeting the following criteria must be enrolled in a commercial OAP or the AOAP:

(1) A diesel engine with an oil capacity of five gallons and over.

(2) Automatic transmission/gearbox, meeting criteria in paragraph 3-9a, above.

(3) Hydraulic system over five gallons, excluding brakes, meeting criteria in 3-9a, above.

(4) All watercraft engines, main and auxiliary, meeting criteria in 3-9a, above.

(5) **NOTE:**

(a) Auxiliary engines are those engines on a watercraft which are used for propulsion.

(b) No gasoline engines or manual transmissions may be enrolled.

(c) Automatic transmissions and hydraulics cannot be enrolled in the AOAP unless the equipment engine is enrolled.

d. Real property that meets the criteria of Phase II above, may be enrolled in the OAP.

e. HQUSACE (CELD-MS) will:

(1) Develop policy pertaining to the OAP.

(2) Exercise program management over the OAP.

(3) Ensure the AOAP is coordinated with the U.S. Army Logistics Support Activity.

(4) Established a requirements list for items to be enrolled in the OAP.

f. MSC commander will:

(1) Recommend items for inclusion in the AOAP.

(2) Provide management guidance, technical supervision and assistance to all activities within their command.

(3) Ensure all activities within their command participate in an OAP.

(4) Have an OAP monitor appointed in writing.

g. The following policies apply to the AOAP:

(1) The AOAP is mandatory at all levels of maintenance operations for specified personal property, including overhaul for quality assurance purposes.

(2) The AOAP will be executed between the laboratory and the user activity.

(3) The lubricating-and hydraulic oils from all components enrolled in the program will be evaluated by the servicing AOAP laboratories. Intervals are specified in DA PAM 738-750, chapter 4, or upon notification by the servicing AOAP laboratory.

(4) Upon receipt of a DA Form 3254-R (Oil Analysis, Recommendation, and Feedback) issued by the AOAP laboratory, the activity commander will place the equipment in a nonmission capable maintenance status until the maintenance action is completed.

(5) All activities and levels of command will have an AOAP monitor who is adequately trained by the supporting lab or installation AOAP monitor.

(6) Each AOAP laboratory will provide oil analysis support per applicable publications and supplemental guidance provided by the program director.

h. Detailed operating procedure for the AOAP are contained in DA PAM 738-750, chapter 4.

3-10. Administrative Storage of Materiel. Administrative storage is the placement of materiel in a limited care and preservation status for short periods of time.

a. Administrative storage will be considered when:

(1) An activity lacks operating funds, people and other resources, or normal usage of its equipment is not adequate to sustain materiel readiness.

(2) Lack of maintenance resources causes an activity to be incapable of performing the required routine maintenance of its personal property.

(3) Equipment that exceeds the activity's capability to operate or maintain but is required to be retained for contingency or other valid reasons as determined by the commander.

(4) Completion of current mission does not require the use of authorized personal property on a routine basis (seasonal).

(5) Before the decision to use administrative storage, the commander will consider all workable options for maintaining personal property readiness.

b. Commanders/directors may authorize the administrative storage of their personal property within guidance furnished by this regulation. To maximum extent practical, administrative storage of personal property will be controlled and supervised at district/laboratory level or above.

c. Commanders/directors will:

- (1) Furnish assistance as required in carrying out an administrative storage program.
- (2) Monitor the condition of materiel in administrative storage in their commands.
- (3) Conduct a command level review of administrative storage at least every 6 months to determine the need and effectiveness of the program.

d. When more than 15 percent of an organization's on-hand equipment must be placed in administrative storage, the commander/director will consider initiating action to reorganize the activity at a level of equipment authorization that can be operated and maintained.

e. Equipment in administrative storage will have all major subsystems exercised as directed by applicable owners' manual. Any faults detected will be corrected. The personal property will then be completely reprocessed if it is to be returned to administrative storage.

f. All regularly scheduled preventive maintenance services are suspended while materiel is in administrative storage. Before personal property is placed in administrative storage, all operator maintenance must be completed.

g. Special scheduled services, inspections, maintenance standards and procedures, or other evaluations prescribed in applicable materiel operators' manuals will be followed. Performance of the services is the responsibility of the activity storing the materiel. Faults noted during these required services, inspections and evaluations are corrected as quickly as practicable.

h. Equipment will be rotated per a rotational plan that will keep it exercised and reduce maintenance effort.

i. Equipment will be stored to provide maximum protection from the elements, to provide access for inspection, maintenance, and exercising, and to provide physical separation from active personal property.

j. The access to materiel in administrative storage will be strictly controlled to prevent cannibalization of pilferage.

3-11. Calibrations Programs. The use and care of test, measurement and diagnostic equipment within USACE is extremely important. Commanders at all levels will ensure a calibrations program is used to the maximum extent possible. AR 750-43 and TB 43-180 outline the policies and procedures to be followed if the Army's program is used. The equipment that is covered by this

program are items used to troubleshoot and repair other items, i.e., multimeters, torque wrenches, gauges, etc. It can be used for, but is not solely intended for, laboratory equipment. The program is item-specific and the use of other calibration sources is allowed for Corps equipment.

3-12. Cannibalization of Materiel.

a. Cannibalization is the authorized removal of components from materiel designated for disposal. Cannibalization supplements supply operations providing assets not immediately available through the supply system. Degradation of resale value should be considered prior to the determination to use cannibalization.

b. Materiel awaiting disposition will not be cannibalized. Parts will only be removed after the end item is accepted into a cannibalization point and with the approval of the accountable officer.

c. Policies and procedures for the establishment and operation of cannibalization points are contained in AR 710-2, DA PAM 710-2-2 and ER 700-1-1.

3- 13. Maintenance of Pneumatic Tires.

a. Public Law 99-272 requires all government agencies to use and procure retread tires to the maximum extent possible. The following paragraphs address the basic policy pertaining to retread tires.

(1) Command emphasis is required at all levels to obtain maximum safety, savings and environmental benefits from the use of retread tires.

(2) Surveillance procedures will be established to ensure that all repairable vehicle and equipment tires are recovered prior to the end of their useful life.

(3) Repairable tires will be retreaded, not discarded or processed through Defense Reutilization and Marketing Office (DRMO), unless classified not repairable/not economically repairable by qualified technical inspectors. Repairable tires will not be given or sold to commercial vendors for disposal.

(4) Except for the restrictions listed below, or as approved by waiver from HQUSACE (CELD-MS), all activities will use retread tires in accordance with Public Law 99-272.

(a) Two-ply tires, without breaker strips or belts will not be retreaded.

(b) All buses and passenger vans with an occupancy capacity of 15 personnel or more will not be operated with retread tires on the steering axles.

(c) M520 truck series and M747 (or equivalent) semitrailers will not be operated with retread tires.

(d) All 10-ton and above, truck tractors will not be operated with retread tires on the steering axles.

(e) All emergency vehicles (i.e., fire trucks, police/ranger vehicle, etc.) will not be operated with retread tires on the steering axles.

(f) All activities will comply with Federal, state or local codes that prohibit the use of retreads.

(5) Regrooving of tires is not permitted because it is not structurally viable or cost-effective.

b. Responsibilities of all commanders/directors are:

(1) Obtain the most cost-efficient use of the retread tire program and maximize safety during pneumatic tire maintenance.

(2) Maximize the use of training courses dealing with pneumatic tires.

(3) Ensure thorough inspections of pneumatic tires mounted on vehicles and equipment during PMCS and their removal when tread depth reaches the dimension for retreading.

(4) Ensure all maintenance personnel are in compliance with TM 9-2610-200-24, TM 9-2610-201-14, and applicable OSHA regulations.

(5) Assuring that qualified personnel are available to inspect and classify tires prior to turn-in for retreading or for disposal and to perform acceptance inspections upon receipt of retread tires.

c. Quality of retread tires. Retreading can be performed several times as long as the casing is removed from the vehicle/equipment before damage occurs. Activities and stock record accounts will ensure retread tires are inspected for quality of workmanship upon receipt. If deficiencies in quality or workmanship are noted, the inspector will initiate a Quality Deficiency Report/ Equipment Improvement Recommendation (QDR/EIR) to the applicable command.

d. Training. All commanders will ensure that training is provided to personnel who service single-piece or multi-piece rims and wheels. Records will be maintained documenting this training.

e. Warranties. Tires repaired or retreaded by General Services Administration contractor or local commercial sources are guaranteed against defects for the tread life of the tire. Defective tires will be returned to the contractor for repair or adjustment. Defective tires rebuilt by government facilities will be retained as exhibits and reported for disposition.

f. Mixing of radial and bias ply tires is not permitted. Mixing of radial and bias ply tires can result in the loss of steering control, inadequate vehicle handling and/or mechanical damage. Radial tires should always be used in sets. The term "sets" means all tires on the vehicle including the spare.

3-14. Maintenance Expenditure Limits (MEL).

a. The MEL is a total allowable one-time cost to restore an end item, major component or repairable component to a fully serviceable condition.

b. MELs will be used to ensure economic and operational effectiveness of USACE maintenance. Required repairs will not be broken into separate job estimates to bypass prescribed MELs.

c. MELs for Revolving Fund and Project Fund owned equipment are contained in ER 1125-2-301. MELs for Administrative Use Vehicles are contained in ER 56-2-1. Department of the Army has published MELs for military standard equipment in the Technical Bulletin (TB) series 43-0002. MELs for office machines, furniture and materials handling equipment is contained in CFR Title 41. Equipment not covered by any of the above publications will have a MEL assigned locally. This process will take place within 30 days of item being posted to the property book. Life expectancy, depreciation, uniqueness, repair parts and labor costs are some of the items to consider when establishing the MEL. The MEL can be expressed by either a dollar amount or by percentage and will be reviewed and updated annually. Document the MEL in the equipment maintenance records.

d. Request for permission to exceed the MEL cited in publications above should be made to authorities cited in the publication. Permission approvals should be in writing. Permission to exceed locally assigned MEL (only for items not covered in publications) must be in writing and signed by the District Commander or equivalent, for separate operating activities.