	DEPARTMENT OF PUBLIC SAFETY	EFFECTIVE DATE: JUN 26 1995	POLICY NO.: LAW.06.01
	LAW ENFORCEMENT ADMINISTRATION POLICY AND PROCEDURES	SUPERSEDES (Policy No. & Date): LAW.06.01 - 4/24/95	
	SUBJECT: EQUIPMENT PREVENTIVE MAINTENANCE PROGRAM		Page 1 of 11

No. 95-31834

1.0 PURPOSE

To establish procedures and responsibilities governing a preventive maintenance program for State equipment.

2.0 REFERENCES & DEFINITIONS

.1 References

Hawaii Revised Statutes, Chapter 353C-2, Director of Public Safety, Powers and Duties.

.2 Definitions

Equipment: For purposes of this policy, equipment means a vehicle or any mechanical device that requires maintenance on a periodic basis as defined by the manufacturer.

3.0 POLICY

Regular care and inspection of equipment is essential to ensure the safety of staff and the efficient operation of law enforcement in carrying out its mission. A preventive maintenance program shall be established to ensure safe operation and prolong the useful life of State equipment by performing predetermined and scheduled maintenance operations. The main components of the program shall be:

- .1 Establishment of preventive maintenance routines for equipment to minimize out of service time due to failures as well as reduce costly breakdown repairs.
- .2 Provide the capability to detect maintenance deficiencies in their early stages of development and take corrective action.

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- .3 Planning and scheduling maintenance work to provide a reasonable controlled work flow and thus enable better utilization of labor and materials.
- .4 Detection and reduction of over-maintenance and the identification of problem areas.
- .5 Annual evaluation of the program.

4.0 RESPONSIBILITIES

Each division administrator shall appoint a section administrator or branch administrator, as appropriate, depending on organizational structure and equipment location, to function as a preventive maintenance program manager. That individual shall be responsible for the supervision, control, coordination, record keeping, and reporting requirements of this program for all equipment assigned to their operation. All servicing schedules, repair records, work requests, and work orders shall be maintained by the preventive maintenance program manager at their base of operations.

5.0 PROCEDURES

.1 Equipment Inventory

An inventory record shall be maintained of all mechanical equipment requiring periodic maintenance. As a minimum, the record for each piece of equipment shall contain the data outlined on attachment A. The record format presented may be maintained in a computer or generated as a form by a computer. The data outlined on attachment A may be added to or revised as necessary to fully describe the piece of equipment.

.2 Servicing Schedules and Records

The examples provided for service schedules may be computer generated as a hard copy form or maintained within the computer. The schedule examples may be revised to fully reflect the servicing requirements established by the manufacturer.

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The preventive maintenance program manager shall be responsible for periodically checking these schedules or delegating someone that responsibility to ensure all service requirements are complied with. Staff members shall be assigned the servicing work when practical. Servicing which cannot be performed by staff shall be done by authorized dealers of the equipment.

a. Vehicles

A servicing schedule shall be developed and maintained for each vehicle. Service schedules shall be based upon the manufacturer's service manual. Attachment B provides an example of the manner in which the schedule is to be organized.

b. Watercraft

A servicing schedule shall be developed and maintained for each watercraft. Servicing schedules for the craft and motor shall be based upon the manufacture's service manual. Attachment C provides an example.

c. Boat Trailers

1. A servicing schedule shall be developed and maintained for each boat trailer. Attachment D provides an example.
2. Trailers shall not be painted. Rusty spots shall be cleaned and coated with cold galvanize.

d. Other Equipment

A servicing schedule shall be developed and maintained, similar to attachment B, for all other equipment that requires periodic maintenance as specified by the manufacturer.

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.3 Inspection Schedules

Watch supervisors shall be responsible for ensuring that all personnel who use vehicles adhere to the following inspections schedules. All deficiencies are to be reported immediately to the watch supervisor.

a. Vehicles

1. Fuel

The gas tank is full prior to leaving on patrol.

2. Oil

The oil level is inspected at least once weekly and maintained at the proper level.

3. Battery

The battery water level and terminals are checked each time fuel is purchased.

4. Safety equipment

All lights, turn indicators, safety belts, siren, PA system, radio, and rear view mirror are visibly checked and tested before vehicle use.

5. Tires

1) All tires are checked to ensure they are properly inflated before vehicle use.

2) All tires are checked at least weekly for cuts or other defects.

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b. Watercraft

1. Fuel

The tank is full prior to leaving on patrol. Only the type and mix of fuel recommended by the manufacture of the motor shall be used.

2. Safety Equipment

Visually inspect and test all lighting, electrical, and communications equipment prior to patrol. Ensure there are personal flotation devices on board for each person.

3. Oil

The oil level shall be checked prior to patrol and maintained at the proper level.

4. Stern Drive

Prior to each patrol visually check stern drive or outboard lower unit for indications of leakage or damage before the boat is put in the water.

5. Cooling System

Prior to each patrol:

- a) Inspect water hoses for leaks or defects.
- b) Inspect the fan belt for defects and wear.

6. Washing

Upon completion of a patrol and being secured upon its trailer, the boat shall be washed with fresh water.

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c. Boat Trailers

1. Brakes

- a) Prior to towing the boat to the launching area, brakes shall be tested to insure they are in good working order.
- b) Trailer brakes shall not be routinely submerged in saltwater. If they are submerged, they shall be immediately flushed with fresh water.

2. Washing

After use in saltwater, the entire trailer shall be rinsed with fresh water.

3. Unit inspection

- a) Rollers and carpet on runners shall be inspected for wear and damage each time the trailer is used.
- b) The undercarriage shall be inspected for damage prior to each use.

4. Tires

Prior to each use of the trailer:

- a) Tires shall be inspected to ensure they are properly inflated in accordance with the manufacture's recommendation.
- b) Visually check all tires for defects.

.4 Repair Records

For each unit of equipment, a record of all minor and major repairs shall be maintained. As a minimum, this record shall contain the following information for each repair job:

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- a. Name and location of the piece of equipment.
- b. Description of the equipment, including make, model, and serial number.
- c. Description of the malfunction, date it was first noticed, and by whom.
- d. Cause of the malfunctions, if known.
- e. Description of the repair work performed and by whom.
- f. Cost of the repair job, including labor and materials, if the facility was charged.

.5 Corrective Action

Breakdown of equipment or servicing schedules provide the basis for the initiation of maintenance and repair work (work requests). The urgency for corrective action shall be divided into three categories.

a. Urgent Maintenance

Equipment deficiency or breakdown found during the course of an inspection which requires immediate correction to eliminate hazards to staff, inmates, or equipment, or loss or damage to property. Situations of this nature shall be immediately reported in writing to the preventive maintenance program manager. The report shall include:

1. Name of the inspector and date of inspection.
2. Description of the equipment and problem.
3. Why the situation is considered urgent.
4. Recommended corrective action and estimated cost.

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A copy of all urgent maintenance reports shall be sent to the Division Administrator.

b. Essential Maintenance

Equipment deficiencies which should be corrected as soon as possible but are not of sufficient urgency that they cannot be fitted into a work planning schedule.

c. Projected Maintenance

Equipment deficiencies similar to those of essential maintenance but of a less urgent nature, such as items showing some evidence of deterioration which will increase in time, and subsequently require corrective action. This category shall provide a list of maintenance and repair work for advance budget planning.

.6 Work Request and Work Order Organization

a. Work requests to correct equipment defects shall be submitted to the preventive maintenance program manager for action. The work request shall include, as a minimum:

1. Cost estimate for the job (where applicable).
2. Description of the work to be performed.
3. A reference to the inspection schedule for the equipment.

b. All work requests shall be reviewed and categorized as follows:

1. Location and/or type of equipment.
2. Priority, depending upon the urgency of the work required.

c. Work orders shall be issued in priority order as determined by the preventive maintenance program manager.

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- d. Staff members shall not have repairs made to equipment without authorization from the preventive maintenance program manager and a purchase order has been issued prior to the repair work.
- e. It shall be the responsibility of the supervisor authorizing the repair work to make certain the agency name and purchase order number are placed on the repair bill or invoice.
- f. All general repairs to vehicles and other equipment shall be made by authorized dealers of the make of equipment involved, unless a different repair facility is designated and authorized.
- g. At least annually, the preventive maintenance program manager shall review the use of local repair facilities to ensure that such use is justified from a cost effective, as well as operational standpoint.
- h. All bills and invoices shall be made out in the name of the division and shall carry the vehicle registration number and current odometer reading.
- i. When a vendor offers discounts, the invoice shall reflect same. The hourly labor rate which is charged shall be reflected on each bill or invoice.
- j. All bills or invoices shall be either signed by a member assigned the use of the equipment or their immediate supervisor. The signature must be legible and be the actual signature of the member, followed by their identification card number and badge number.

.7 Program Control and Organization

The control and coordination of the preventive maintenance program shall include the monitoring of inspections, record maintenance, corrective action, work request organization, and the issuance of work orders.

The authority in charge of the program shall also be responsible for supervising and controlling record maintenance. A separate file shall be maintained for each unit of equipment. The file for each unit of equipment shall contain the following:

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- a. Servicing schedule record.
- b. Repair history (repair records).

8. Vehicle and Watercraft Operation

- a. Only qualified and authorized employees and volunteers shall operate departmental vehicles. Each operator shall at all times have in their possession a valid Hawaii State Driver's License. Employees shall not operate marked patrol units out of uniform unless authorized by a supervisor.
- b. Prudent judgment shall be exercised in an effort to economize fuel expenditures, wherever and whenever possible.

.9 Equipment Modification

No employee shall make or have made any modifications to vehicles or other equipment without prior approval from the division administrator.

.10 Program Evaluation

An annual evaluation of the preventive maintenance program shall be conducted and a written report submitted to the division administrator from the preventive maintenance program manager. As a minimum, this report shall include:

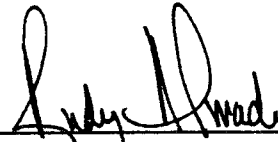
- a. A summary of work request activity. This shall include the total number of work requests for the year and what number, or percentage, were requests for urgent maintenance, essential maintenance, and project maintenance. An analysis of the situation shall be included. This analysis shall outline the kind of work activity involved and type of equipment.
- b. A summary of work order completion's. This shall include an outline of the total number of work orders for the year and the number, or percent completed. An analysis of the situation shall be included such as the nature of the work performed, the reason for non-completion of any work orders, etc.

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6.0 SCOPE

This policy applies to all law enforcement operations within the Department who maintain State equipment.

Approval Recommended:



Deputy Director for Law Enforcement

6/26/95

Date

Approved:



Director

6/26/95

Date

EQUIPMENT INVENTORY RECORD

Equipment Name _____

Model No. _____ Serial No. _____ Date Acquired _____

Location _____ Building _____ Room _____

State Inventory Identification Number _____

Parts Supplier: Address _____

Telephone _____ Contact Person _____

Manufacturer: Address _____

Telephone _____ Contact Person _____

Warranty: Yes _____ No _____ Expiration Date _____

Location of Manufacturer's Service Manual _____

Vehicle _____

(License Number)

ITEM	START		COMPLETED*			
	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Oil & Oil Filter (change every 3,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Front Wheel Bearings (repacked every 12,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Transmission and Differential Lubricants (change every 16,000 mi.)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Brakes (fluid check every 6 months)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Carburetor Air Filter (replace every 12,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Cooling System (Flush and change yearly)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Tires (switch back to front every 6,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Lubrication (every month or 3,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:
Waxed (once a year)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
	Mileage:	Mileage:	Signature:	Signature:	Mileage:	Mileage:

NOTE: The person who completed the servicing shall sign the form. If a dealer did the work, the district or watch supervisor shall sign.

STATE OF HAWAII
 DEPARTMENT OF PUBLIC SAFETY
 MARITIME LAW ENFORCEMENT DIVISION

Attachment D

Service Schedule

BOAT TRAILER _____

(License Number)

ITEM	START		COMPLETED*			
	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Wheel bearings (replace every 1,000 or 6 months)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Nuts and bolts (visual check every 25 hours)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Spare Tire (rotated every 1,000 miles)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Buddy bearings (grease with hand grease gun only every 6 months)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:
Break fluid (check once a month)	Date:	Mileage:	Date:	Mileage:	Signature:	Date:

*NOTE: The person who completed the servicing shall sign the form. If a dealer did the work, a supervisor shall sign.

WATERCRAFT

(Registration Number)

ITEM	START		COMPLETED*		
	Date:	Hours:	Date:	Hours:	Signature:
Fuel Filters (change every 600 hours)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Oil & Oil Filter (change every 100 hours or 4 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Steering Assembly and Cables (lubricate every 100 hours or 4 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Hinge Pin & Swivel Brackets (lubricate every 100 hours or 4 mo.)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Propellers (remove & grease shaft every 100 hours)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Gear Oil (change every 100 hours or 4 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Stern Drive (remove & grease every 600 hours)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Pump Impeller (replace every 600 hours)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Power Trim Pump (check level every 100 hours or 4 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Flame Arrestor (clean every 100 hours or 4 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Batteries (check level and terminals once a week)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Waxed (every 6 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:
Outboard Waxed (every 3 months)	Date:		Date:		Date:
	Hours:		Hours:		Hours:
			Signature:		Signature:

*NOTE: the person who completed the servicing shall sign the form. If a dealer did the work, the district or watch supervisor shall sign.