

## INTRADEPARTMENTAL CORRESPONDENCE

July 6, 2014  
14.2

**TO:** The Honorable Board of Police Commissioners

**FROM:** Chief of Police

**SUBJECT:** FLEET REPAIRS AND MAINTENANCE AUDIT (IAID No. 13-044)

### RECOMMENDED ACTIONS

1. That the Board of Police Commissioners REVIEW and APPROVE the attached Fleet Repairs and Maintenance Audit.
2. That the Board of Police Commissioners REVIEW and APPROVE the attached Executive Summary thereto.

### DISCUSSION

Internal Audits and Inspections Division conducted the Fleet Repairs and Maintenance Audit to assess the Department's adherence to instituted protocols at Motor Transport Division and related policies and procedures.

If additional information regarding this audit is required, please contact Arif Alikhan, Special Assistant for Constitutional Policing, at (213) 486-8730.

Respectfully,



CHARLIE BECK  
Chief of Police

Attachment

LOS ANGELES POLICE DEPARTMENT

*Fleet Repairs and Maintenance  
Audit*

*(IAID No. 13-044)*



CHARLIE BECK  
Chief of Police

*June 2014*

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**EXECUTIVE SUMMARY**  
**FLEET REPAIRS AND MAINTENANCE AUDIT**  
**Conducted by Internal Audits and Inspections Division**

**PURPOSE**

In accordance with the Los Angeles Police Department (Department) Audit and Inspections Plan for Fiscal Year (FY) 2013/14, Internal Audits and Inspections Division (IAID) conducted the Fleet Repairs and Maintenance Audit to evaluate adherence to Department policies and procedures, as well as, regulatory requirements. The information contained in this audit is intended to be utilized as a management tool to provide useful feedback to Department management and Motor Transport Division (MTD).

Internal Audits and Inspections Division conducted this performance audit under the guidance of generally accepted government auditing standards, specifically pertaining to performing the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Internal Audits and Inspections Division has determined that the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objectives.

**SCOPE AND METHODOLOGY**

May 2013 was selected as the scope for this audit. There were five objectives, which required different data scope and methodology. A detailed discussion of the scope and methodology is documented in the Procedures Section of each objective. The Repair Orders (ROs) evaluated were randomly selected from a statistically valid sample.<sup>1</sup>

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<sup>1</sup> The sample size was obtained by utilizing a one-tail test with a 95 percent confidence level, and a six percent error rate.



## **SUMMARY OF FINDINGS**

**Summary of Findings and Performance Information<sup>2</sup>**

<b>Objective No.</b>	<b>Descriptions/Objectives</b>	<b>Results</b>
1	Evaluation of the Scheduled PM Program	
1(a)	Completion of the PM and Scheduled Maintenance	65/65 (100%)
1(b)	Supervisory Update of FMS with the Odometer	Performance Information
1(c)	Vehicle Maintenance Schedule	65/65 (100%)
1(d)	Performance of PM Service	Performance Information
1(e)	Completion of the 80 Point Inspection Checklist	42/45 (93%)
2	Evaluation of the Demand Repairs	
2(a)	Completion of Demand Repairs	65/65 (100%)
2(b)	Reasonableness of Demand Repair Cost	Performance Information
2(c)	Demand Repair Supervisory Update of FMS with the Odometer	Performance Information
2(d)	Timeliness of Demand Repair Work	Performance Information
2(e)	Performance of Additional Repair Work	Performance Information
3	Evaluation of Supervisory Oversight	65/65 (100%)
4	Evaluation of Smog Check and Speedometer Calibration	
4(a)	Signature and Date of the Vehicle Inspection Report	Performance Information
4(b)	Completion of Vehicle Smog Check	35/35 (100%)
4(c)	Data Entry of Smog Check Information	Performance Information
4(d)	Semi-annual Calibration of the Speedometers	45/175 (26%)

## **RECOMMENDATION**

None.

## **ACTIONS TAKEN/MANAGEMENT'S RESPONSE**

On February 4, 2014, IAID auditors and management met with the Commanding Officer, Motor Transport Division, and staff, and discussed the audit findings. Motor Transport Division expressed general agreement with the audit and provided a written response. The Office of Administrative Services also received a copy of this report and expressed general agreement.

<sup>2</sup> The terminology "performance information" is used to indicate MTD's guidelines based on best practices. There are no applicable Department policies for these audit objectives.

## **FLEET REPAIRS AND MAINTENANCE AUDIT**

**Conducted by  
Internal Audits and Inspections Division  
First Quarter FY 2013/14**

### **PURPOSE**

In accordance with the Los Angeles Police Department (Department) Audit and Inspections Plan for Fiscal Year (FY) 2013/14, Internal Audits and Inspections Division (IAID) conducted a Fleet Repairs and Maintenance Audit to evaluate adherence with Department policies/procedures, as well as, regulatory requirements. The information contained in this audit is intended to be utilized as a management tool to provide useful feedback to Department management and Motor Transport Division (MTD).

Internal Audits and Inspections Division conducted this performance audit under the guidance of generally accepted government auditing standards, specifically pertaining to performing the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Internal Audits and Inspections Division has determined that the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objectives.

### **BACKGROUND**

Motor Transport Division is responsible for meeting the transportation needs of the Department. Its primary mission is to provide the Department with a safe, reliable, and effective law enforcement fleet. Vital to fulfilling the mission are the strategic fleet management practices applied to every aspect of the operation, including fleet utilization, vehicle and equipment procurement, fueling operations, maintenance and repairs, and salvage. Additionally, MTD is responsible for researching and developing complex equipment specifications and providing special enforcement equipment needed for surveillance, rescue, K-9 unit, bomb detection, command post, and mobile substation vehicles.

Motor Transport Division operates a decentralized system comprised of 29 vehicle maintenance facilities in 24 locations. There is a facility at each of the Department's 21 geographic Areas. Additionally, there are three Central Facilities, two at Piper Technical Center, one at Edward M. Davis Training Facility – Emergency Vehicle Operations Course (EVOC), and two at the Main Street Facility.

The Department's fleet totals approximately 5,100 units. The fleet travels about 56 million miles annually. The fleet's average age is 6.71 years, and average mileage is 52,185. The fleet is predominantly comprised of sedans followed by motorcycles, 70 percent and 10 percent respectively. The remaining 20 percent of the fleet includes boats, buses, heavy and light trucks, non-highway equipment, sport utility vehicles, trailers, vans and other specialized vehicles. Approximately 787 unmarked vehicles are used for undercover and surveillance operations.<sup>1</sup>

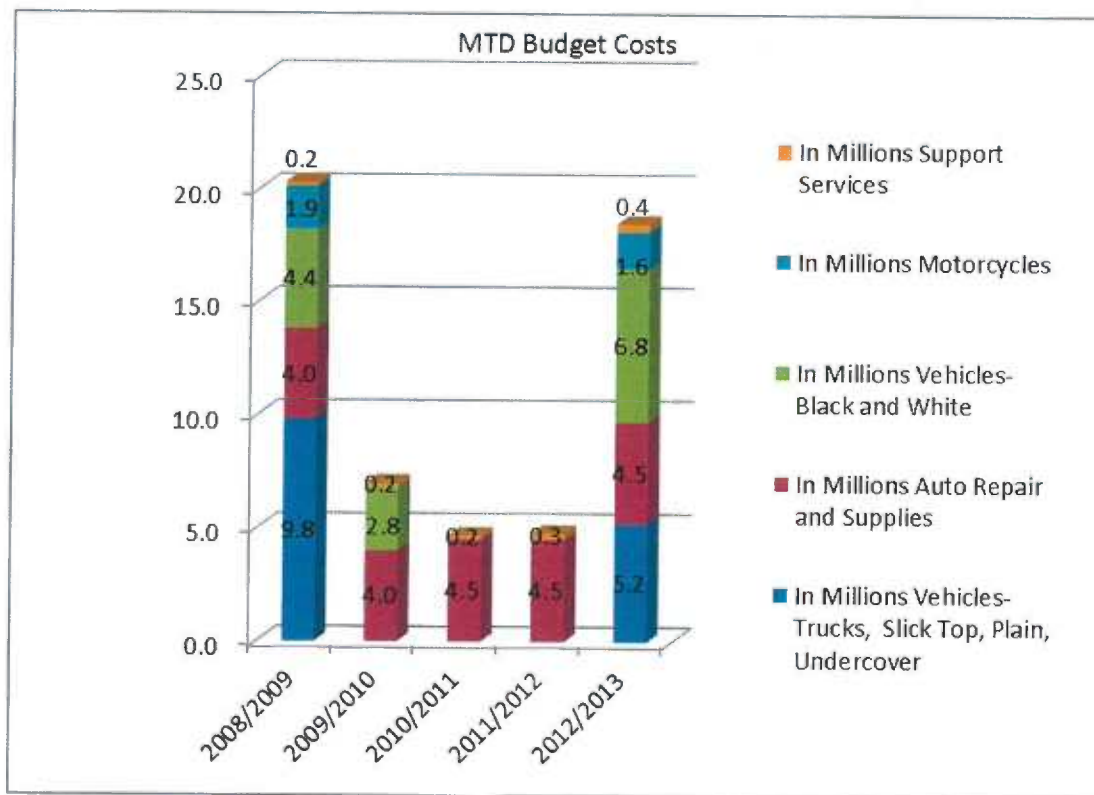
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<sup>1</sup> LAPD Infoweb – Motor Transport Division.

The amortized active capital value of the fleet is \$35,118,000.00, which represents an average value of \$6,885.00. The normal annual vehicle replacement budget ranges from 14 to 18 million dollars. The optimal fleet replacement percentage should be about 12 to 18 percent per year. The vehicles are considered for replacement when they reach 115,000 and motorcycles at 80,000 miles.<sup>2</sup>

Maintenance of the fleet and support service is performed in accordance to the Fleet Maintenance System (FMS), which was implemented in 1996. The computerized system is designed to manage critical repair information and track repair and maintenance services.<sup>3</sup> The fleet requires approximately 45,000 repair services annually, which includes preventive maintenance (PM), routine and major repairs, technical equipment installs, emergency equipment retrofits and fabrication, body work resulting from operational needs and traffic accidents, and vehicle certifications and safety inspections. The annual labor hour requirement to maintain the fleet is 186,500 hours. The fleet operating budget is approximately 20 million dollars, less fuel and vehicle purchases. The following graph depicts the last five fiscal year costs of fleet maintenance and repairs allocated among major functions.<sup>4</sup>

**Figure No. 1 – Motor Transport Division Budgetary Costs**



<sup>2</sup> Motor Transport Division Business Plan, January 20, 2011, p. 5, Section D.

<sup>3</sup> Internal Audits and Inspections Division has not performed an integrity check on the FMS.

<sup>4</sup> Motor Transport Division Business Plan, January 20, 2011, p. 6, Section E.

Motor Transport Division has 22 maintenance locations that have fueling stations with a combined fuel capacity of 369,000 gallons. Each station has one large or two small underground fuel tanks. Fleet personnel perform daily mandatory/regulatory inspections and monitor fuel island operation. The fuel cost and utilization is funded and purchased by the City's General Services Department. Requirements for fuel levels are kept at no less than 50 percent of the capacity of each location. The average fuel utilization for the Department is about 278,000 gallons per month. The average miles per gallon for the fleet are 15.65. The fuel cost for 2013 was about \$12 million.

### **PRIOR AUDITS**

This is the first MTD Fleet Repairs and Maintenance Audit IAID has conducted. However, the City Controller's Office has performed audits pertaining to MTD, entitled "Controls over the City's Fuel Use" issued March 29, 2012, which had heavy emphasis with the fuel system, and the "Audit of the City's Home Garaged Vehicles" issued January 22, 2009.

### **SCOPE AND METHODOLOGY**

May 2013 was selected as the scope for this audit. There were five objectives, which required different data scope and methodology. A detailed discussion of the scope and methodology is documented in the Procedures Section of each objective. The Repair Orders (ROs) evaluated were randomly selected from a statistically valid sample.<sup>5</sup>

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<sup>5</sup> The sample size was obtained by utilizing a one-tail test with a 95 percent confidence level, and a six percent error rate.



## **SUMMARY OF FINDINGS**

Table No. 1 is a summary of findings and performance information.<sup>6</sup>

**Table No. 1 – Summary of Findings**

<b>Objective No.</b>	<b>Descriptions/Objectives</b>	<b>Results</b>
1	Evaluation of the Scheduled PM Program	
1(a)	Completion of the PM and Scheduled Maintenance	65/65 (100%)
1(b)	Supervisory Update of FMS with the Odometer	Performance Information
1(c)	Vehicle Maintenance Schedule	65/65 (100%)
1(d)	Performance of PM Service	Performance Information
1(e)	Completion of the 80 Point Inspection Checklist	42/45 (93%)
2	Evaluation of the Demand Repairs	
2(a)	Completion of Demand Repairs	65/65 (100%)
2(b)	Reasonableness of Demand Repair Cost	Performance Information
2(c)	Demand Repair Supervisory Update of FMS with the Odometer	Performance Information
2(d)	Timeliness of Demand Repair Work	Performance Information
2(e)	Performance of Additional Repair Work	Performance Information
3	Evaluation of Supervisory Oversight	65/65 (100%)
4	Evaluation of Smog Check and Speedometer Calibration	
4(a)	Signature and Date of the Vehicle Inspection Report	Performance Information
4(b)	Completion of Vehicle Smog Check	35/35 (100%)
4(c)	Data Entry of Smog Check Information	Performance Information
4(d)	Semi-annual Calibration of the Speedometers	45/175 (26%)

## **DETAILED FINDINGS**

### **Criteria**

The Department Manual Section 3/580.10, Vehicle Maintenance, is applicable to many of the objectives within this audit, which states, *“Division commanding officers shall cause all motorized equipment in their respective division to be maintained in the best practicable condition.”*

<sup>6</sup> The terminology “performance information” is used to indicate MTD’s guidelines based on best practices. There are no applicable Department policies for these audit objectives.

## **Objective No. 1 – Evaluation of the Scheduled PM Program**

### **Objective No. 1(a) – Completion of the PM and Scheduled Maintenance**

#### **Criteria**

The MTD Operational Manual, Section II (B), MTD Vehicle PM Overview, states, “*Motor Transport Division's (MTD's) vehicle preventive maintenance (PM) consists of the following actions: inspection, lubrication, adjustment, cleaning, testing and replacing components which have failed or are on the verge of failure.*”

The MTD Operational Manual further specifies, “*MTD's PM program has three major components:*

- 1. A checklist of maintenance actions that need to be performed periodically,*
- 2. The interval or frequency with which these actions are performed.*
- 3. The reporting mechanism and documentation when the PM is needed and after they are completed.”*

The MDT Operational Manual, Section II (C), specifies, “*MTD supervisors are tasked to perform the documentation of all scheduled and unscheduled work performed during vehicle service and repairs.*”

#### **Audit Procedures**

Auditors randomly selected 65 ROs from May 2013, from a population of 1,472 ROs. This sample included patrol cars, motorcycles, and other vehicles, and were tested to determine whether the scheduled repair was performed for inspections, normal wear and tear, warranty repairs, timely repairs, the repair data was entered by the supervisor into FMS, and whether the VIT mileage was synchronized with the odometer.

**Table No. 2 - Repair Orders**

<b>Vehicle Type</b>	<b>Scheduled</b>	<b>Sample</b>
Patrol Car	512	25
Motorcycle	200	7
Other <sup>7</sup>	760	33
<b>Totals</b>	<b><u>1,472</u></b>	<b><u>65</u></b>

The Department met the standard if the PM and scheduled maintenance was performed.

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<sup>7</sup> Other vehicles include black and whites without light bars, plain, and miscellaneous vehicles, including tractors, vans, and buses.

### Finding

Each (100%) of the 65 ROs that received PM and scheduled maintenance met the standard for this objective.

### Objective No. 1(b) – Supervisory Update of FMS with the Odometer

#### Criteria

Vehicles are scheduled for PM based on the mileage that is monitored by the VIT, which relays the odometer reading to the FMS when vehicles are fueled at a City fuel station. The mileage is a critical indicator which triggers the vehicle for PM. The system generated mileage is monitored by the technician whenever a vehicle is serviced.

Motor Transport Division's protocol is to ensure the mileage between the VIT and odometer of the vehicle, to have no more than a three mile variance. During the service, the technician is required to write the odometer reading on the RO if it is different than the VIT generated reading. The supervisor is required to update the FMS to synchronize with the vehicle's odometer reading.

#### Audit Procedures

Auditors reviewed the 65 ROs to determine whether the VIT mileage was synchronized with the odometer. If the VIT mileage was different than the odometer, the mileage needed to be synchronized by a supervisor.

The Department met the standard if the mileage between the VIT and odometer was within three miles.

### Finding

Fifty-seven (88%) of the 65 vehicles met the standard for this objective. The mileage variance was between 20 - 903 miles, which is illustrated in Table No. 3.

**Table No. 3 – Mileage Variance**

RO Location	Unit No.	Unit Class	RO No.	System Generated RO Meter	Actual Recorded Meter Per Vehicle	Mileage Variance
R01	87311	Plain	PP42735	79,578	79,606	28
R01	87652	BW	PP39606	92,767	93,016	249
R02	06143	Misc.	PP902076	28,226	28,355	129
R03	05115	Misc.	PP44518	108,320	107,417	903
R03	88350	BW	PP44467	63,869	63,969	100
R05	88318	BW	PP35278	78,518	78,538	20
R12	87471	Plain	PP41196	137,563	137,718	155
R20	86242	Plain	PP37262	128,167	128,270	103



**Objective No. 1(c) - Vehicle Maintenance Schedule**

**Criteria**

Motor Transport Operational Manual, Section II (B), MTD Vehicle Overview, states "*The interval or the frequencies of PM actions are determined based on several factors:*

- 1. Vehicle classification as in emergency or non-emergency*
- 2. Vehicle utilization rate*
- 3. Vehicle inspections per regulatory agencies mandates*

*MTD has identified the need to have eleven (11) distinct PM interval categories (codes), which includes four (4) emergency class and seven (7) non-emergency class vehicle types. The vehicle utilization determines if a vehicle can be categorized as Scheduled PM based on **Mileage** intervals or **Calendar** based on **Time** intervals. MTD has determined that five (5) PM intervals are to be categorized as predetermined intervals based on Mileage intervals of 4K, and 12K, and 24K service for vehicles, 3K and 12K service for Motorcycles.*

*Additionally, MTD has created Time based PM intervals. Currently MTD uses five (5) time based intervals, which include 90, 120, 180, 360, 720 Days intervals.*

*The combination of Mileage and Time based PM intervals provide MTD the ability and the flexibility to perform and meet all PM program requirements on variety type of vehicle classes at the most cost competitive manner without compromising the safety and the reliability of law enforcement prerequisites."*

**Audit Procedures**

Auditors reviewed 65 ROs for the unit location, group description, make, and model to determine whether the vehicle was properly classified according to MTD's specified guidelines.

The Department met the standard if the vehicle was assigned the appropriate maintenance schedule.

**Finding**

Each (100%) of the 65 vehicles met the standard for this objective.



**Objective No. 1(d) – Performance of PM Service**

**Criteria**

Motor Transport Division Operational Manual, Section II (B), MTD Vehicle PM Overview states, *“The interval or the frequencies of PM actions are determined based on several factors:*

- 1. Vehicle classification as in emergency or non-emergency*
- 2. Vehicle utilization rate*
- 3. Vehicle inspections per regulatory agencies mandates”*

Motor Transport Division has established a guideline, wherein the PM schedule is in compliance if the number is between plus or minus 12 percent from the standard.

**Table No. 4 – Preventive Maintenance Guidelines**

Description	Low	Standard	High
Patrol Car/Dual Purpose/Emg	3,520	4,000	4,480
Motorcycle	2,640	3,000	3,360
Days	106	120	133
Other	10,560	12,000	13,440

*\*The Low and High is 12 percent deviation from the standard number.*

**Audit Procedures**

Auditors randomly selected 65 ROs from May 2013. Additional testing was applied to 45 of the ROs to determine if the vehicles were assigned the proper PM interval, the PM was scheduled within MTD guidelines. The statistical information is based on when the vehicles were scheduled for PM. Area commanding officers are responsible for monitoring when assigned vehicles are due for PM at the geographic Areas and traffic divisions. The vehicles at other divisions are the responsibility of the divisional Vehicle Coordinator.

The mileage and dates of the PM were reviewed and compared to the most recent PM on the vehicles to determine whether the vehicles were serviced within the guideline.

**Finding**

Twenty-nine (64%) of the 45 vehicles were serviced within the guideline. The computed mileage was based on the odometer readings between PM. There were six vehicles that were serviced early and ten that were serviced late. The 16 vehicles that were not serviced within the guideline are listed in Table No. 5 on following page.

**Table No. 5 – Vehicles not Serviced within Established Guideline**

RO	Location	Unit	Class	RO Number	Mileage	Early/Late
R01	Central Facilities	80098	Plain	PP42718	2,227	Early
R01	Central Facilities	88696	Plain	PP39747	4,927	Late
R02	Rampart	88622	Patrol Car	PP02097	5,364	Late
R04	Hollenbeck	80944	Plain	PP41829	4,914	Late
R11	Northeast	83960	Misc	PP07137	737	Early
R12	77 <sup>th</sup> Street	87471	Plain	PP41196	5,417	Late
R17	Devonshire	88548	Patrol Car	PP27368	3,452	Early
R18	Southeast	85789	B/W without Light Bar	PP32317	373	Early
R18	Southeast	88267	Patrol Car	PP32267	5,063	Late
R19	Mission	85227	Plain	PP26952	1,416	Early
R19	Mission	89496	Patrol Car	PP26884	5,681	Late
R20	Olympic	86242	Plain	PP37262	4,700	Late
R21	Topanga	88131	Plain	PP34690	3,342	Early
R99	Main Street Garage	87001	Plain	PP07187	4,894	Late
R99	Main Street Garage	88211	Plain	PP07189	5,671	Late
R99	Main Street Garage	86749	Plain	PP07148	5,565	Late

**Objective 1(e) – Completion of the 80 Point Inspection Checklist**

**Criteria**

Motor Transport Division, Section II (B), MTD Vehicle PM Overview, states “*MTD’s vehicle preventive maintenance (PM) consists of the following actions: inspection, lubrication, an adjustment, cleaning testing and replacing components which have failed or are on the verge of failure.*”

*Each PM process includes a check list that has over eighty (80) line items to inspect and or perform to complete the PM inspection.”*

**Audit Procedures**

Auditors randomly selected 65 ROs from May 2013. In this sample there were 45 ROs that required PM, which included the 80 Point Inspection Checklist. Auditors reviewed the ROs and the 80 Point Inspection Checklists to validate that the checklists were completed.

The Department met the standard if there was a completed 80 Point Inspection Checklist attached to the RO.

## Finding

Forty-two (93%) of the 45 ROs received PM with a completed 80 Point Inspection Checklist. The three ROs without completed checklists are listed on Table No. 6.

**Table No. 6 – PM Service without Completed 80 Point Inspection Checklists**

Location	Unit	Class	RO Number
EVOC	83486	Patrol Car	PP26705
Main Street Garage	02587	Plain	PP07172
Main Street Garage	86740	Plain	PP07148

## Objective No. 2 – Evaluation of the Demand Repairs

### Objective No. 2(a) – Completion of Demand Repairs

#### Criteria

The demand maintenance/repair is requested on the MTD's Motor Vehicle Trouble Ticket, Form 11.03.00 (Blue Slip), with a full description of the problem. Motor Transport Division Operational Manual Section II (C), Unscheduled Maintenance and Repairs, states "MTD Management provides repair authorizations and level of expenditure limits for unscheduled maintenance and repairs, also known as Demand Work (DW). Shop supervisors determine if:

1. The repair or service is necessary
2. The repair cost is reasonable based on vehicle age and condition (see large repair cost policy)
3. Applicable procurement regulations and objectives are met."

#### Audit Procedures

The data received from MTD consisted of vehicles that had maintenance completed on a scheduled and nonscheduled basis. For May 2013 there were 1,755 demand ROs for towing, dead battery, flat tire, inoperable air conditioning, and body damage repair. The random sample calculated for each Area and vehicle type of demand ROs is listed in Table No. 7.

**Table No. 7 - Repair Orders**

Vehicle Type	Nonscheduled	Sample
Patrol Car	1,024	30
Motorcycle	185	6
Other <sup>8</sup>	546	29
<b>Totals</b>	<b>1,755</b>	<b>65</b>

<sup>8</sup> Other vehicles include black and whites without light bar, plain, and miscellaneous vehicles, including tractors, vans, and buses.



The sample of 65 was stratified by selecting from the various vehicle types: 30 patrol cars, six motorcycles, and 29 other vehicles. The assessment included testing whether the scheduled repairs were performed as requested on the ROs.

The Department met the standard if the demand work was performed.

### **Finding**

Each (100%) of the 65 demand work was completed and met the standard for this objective.

### **Objective No. 2(b) – Reasonableness of Demand Repair Cost**

#### **Criteria**

The MTD Operational Manual, Section II (C), Unscheduled Maintenance and Repairs, states, *“MTD management provides repair authorizations and level of expenditure limits for unscheduled maintenance and repairs, also known as Demand Work (DW). Shop supervisors determine if:*

- 1. The repair or service is necessary*
- 2. The repair cost is reasonable based on vehicle age and condition (see large repair cost policy)*
- 3. Applicable procurement regulations and objectives are met.”*

#### **Audit Procedures**

Auditors reviewed the costs for parts and labor for reasonableness, and not specifically whether the costs were accurate, lowest, and best price. Any large and/or unusual cost was reviewed and discussed with MTD. The cost information is used by MTD for performance measures.

### **Finding**

Each (100%) of the 65 vehicle repair costs appeared reasonable based on the work needed.

### **Objective No. 2(c) – Demand Repair Supervisory Update of FMS with the Odometer.**

#### **Criteria**

The vehicles are scheduled for PM based on mileage that is monitored by the VIT, which relays the odometer reading to the FMS when vehicles are fueled at a City fuel station. The vehicle mileage is an extremely important indicator which triggers the vehicle for PM. The system generated mileage is monitored by the technician whenever a vehicle is serviced.

Motor Transport Division’s best practice is mileage between the VIT and odometer should be within three miles of each other. During a service, technicians are required to write the odometer



reading on the RO if it is different than the VIT generated reading. The supervisor is required to update the FMS to synchronize with the odometer reading.

### **Audit Procedures**

The auditors reviewed the 65 demand ROs to determine whether the VIT mileage was synchronized with the odometer. If the VIT mileage was different than the odometer, the mileage needed to be synchronized in FMS by a supervisor.

The Department met the standard if the mileage between the VIT and odometer was within three miles.

### **Finding**

Sixty-two (95%) of the 65 vehicles met the standard for this objective. The mileage variance ranged between 11 - 157 miles which is illustrated on Table No. 8.

**Table No. 8 – Mileage Variance for Demand ROs**

RO Location	Unit No.	Unit Class	RO No.	System Generated RO Meter	Actual Recorded Meter per Vehicle	Mileage Variance
R01	86012	Plain	PP39694	106,418	106,575	157
R03	88844	B/W No Light Bar	PP34012	25,272	25,283	11
R05	87885	BW	PP35243	98,009	98,058	49

### **Objective No. 2(d) – Timeliness of Demand Repair Work**

#### **Criteria**

Motor Transport Division's best practice for non-scheduled, demand repair work is the Area garage will assign a Promise Date as measurements of the anticipated completion of the repair. This is based on MTD's established "Return to Service Standards" that provides predetermined hours and days for various types of service and repairs.

Motor Transport Division uses a three day policy for timely repair completion from the Open Date to Finish Date. This criteria is self-imposed and developed by MTD as key productivity and performance indicators.

Oftentimes, repair work remains open in FMS until part numbers and costs are received from General Services Division and entered in FMS, however the delay in processing the RO parts does not impact the timely servicing of the vehicles.

### **Audit Procedures**

Sixty-five ROs from May 2013 were randomly selected. Auditors reviewed the dates on the ROs for the Open Date and the Finish Date in FMS.

## Finding

Fifty-three (82%) of the 65 vehicles received timely repairs, see Table No. 9.<sup>9</sup>

**Table No. 9 – Demand Repair in Excess of Three Days**

RO Loc	Unit	Unit Class	RO No.	RO Open Date	RO Finish Date	Open Date - Finished
R02	88158	PLAIN	PP02048	5/2/2013	5/10/2013	8
R04	87319	BW	PP41844	5/29/2013	6/7/2013	9
R04	80944	PLAIN	PP41831	5/22/2013	5/29/2013	7
R08	80139	MISC	PP29971	5/22/2013	6/25/2013	34
R09	00802	M/C	PP40405	5/22/2013	10/8/2013	139
R11	80247	MISC	PP01375	5/21/2013	5/28/2013	7
R14	85609	PLAIN	PP42335	5/31/2013	8/14/2013	75
R19	85996	PLAIN	PP26955	5/23/2013	6/5/2013	13
R30	CTD	MISC	PP38811	5/20/2013	8/29/2013	101
R50	06237	MISC	PP42325	5/29/2013	8/13/2013	76
R97	83878	PLAIN	PP26707	5/9/2013	6/26/2013	48
R99	87496	BW	PP06996	5/3/2013	5/8/2013	5

## Objective No. 2(e) – Performance of Additional Repair Work

### Criteria

As a best practice, MTD require technicians to identify additional repairs not listed on the RO that are reasonable and necessary.

### Audit Procedures

Sixty-five ROs from May 2013 were randomly selected, however only three of these ROS required additional repair work. Auditors reviewed them for additional repair work that was not listed on the RO.

## Finding

Each (100 %) of the three ROs had additional repair work that was performed. The Unit numbers were 85996, 85525, and 88437.<sup>10</sup>

<sup>9</sup> MTD provided a Return to Service Standard that is comprised of 20 repair standards that were not supportable with established industry practice.

<sup>10</sup> Additional work performed: Unit 85996 replaced right front hub wheel bearings; Unit 85525 radio repair; and Unit 88437 replaced missing hub cap.

### **Objective No. 3 – Evaluation of Supervisory Oversight**

#### **Criteria**

The MTD Operational Manual, Section II (C), Unscheduled Maintenance and Repairs, states that *“Supervisors are required to review the repair history and year long-term vehicle replacement plan for the vehicles to ensure that repair is cost effective.”*

Additionally, it states, *“MTD supervisors are tasked to perform the documentation of all scheduled and unscheduled work performed during vehicle service and repairs. By following RO management check list, the supervisors shall accomplish the following:*

- 1. Improved verification of service work and repair needs and requests*
- 2. Identifying that the required work was performed*
- 3. Tracking and monitoring costs*
- 4. Categorization of work performed*
- 5. Establish promptness of service delivery, estimated timetables and priority levels (see Rate of Return standards)*
- 6. Accurate tracking of work (work order) status and delay solution procedures*
- 7. Track warranty work performed*
- 8. Identify work that did not meet performance standards”*

Only supervisors are authorized to input data into the FMS.

#### **Audit Procedures**

Supervisors are tasked to approve maintenance and repairs. Auditors reviewed the ROs and 80 Point Inspection Checklists to determine whether supervisors identified the required maintenance and repairs performed, tracked and monitored costs, established promptness of service delivery, and identified work that did not meet performance standards. Auditors obtained a list of MTD supervisors and authorized personnel who entered data into FMS in May 2013 for review.<sup>11</sup>

The Department met the standard for this objective if the work performed was entered into FMS by a supervisor.

#### **Findings**

Each (100%) of the 65 ROs were entered in FMS and met the standard for this objective.

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<sup>11</sup> Auditors reviewed the list of MTD personnel who provided supervisory oversight in May 2013 and determined that all (100%) were eligible supervisors.



**Objective No. 4 – Evaluation of Smog Check and Speedometer Calibration**

**Objective No. 4(a) – Signature and Date of the Vehicle Inspection Report**

**Criteria**

As part of the State requirement, Smog Checks are required for a variety of vehicles, including a large majority within the Department's fleet. Technicians within MTD are required to sign a Smog Check Vehicle Inspection Report when smog checks are performed as required.

**Audit Procedures**

Internal Audits and Inspections Division selected a random sample of 35 Smog Checks out of a population of 192 for review.

The Smog Check Vehicle Inspection Reports (VIRs) were retrieved from the Areas to determine if the Smog Check VIRs were dated and signed by the technician.

**Finding**

Thirty-three (94%) of the 35 Smog Checks met the standard for this objective.

**Objective No. 4(b) – Completion of Vehicle Smog Check**

**Criteria**

The State of California requires that a variety of vehicles over six years old have an emissions inspection performed by an exhaust gas analyzer "smog machine." The VIR statement requires the smog machine detect Hydrocarbons, Carbon Monoxides and Nitrous Oxides in the vehicle's exhaust tested at the 15 mph and 25 mph level. Each type of vehicle has its own respective emission standards.

**Audit Procedures**

Internal Audits and Inspections Division selected 35 Smog Checks for review. Auditors reviewed the VIRs to determine that the vehicle's exhaust emission was tested.

The Department met the standard if the VIR indicated a smog check was conducted as required.

**Finding**

Each (100%) of the 35 VIRs indicated a smog check had been conducted. Moreover, each of the 34 VIRs indicated the vehicles had passed the Smog Check.<sup>12</sup>

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<sup>12</sup> The smog check for Unit 8802, Main Street Garage (R99) failed the smog test and was not retested because it was subsequently scheduled for salvage. Therefore, there were only 34 vehicles reviewed for this test.



**Objective No. 4(c) – Data Entry of Smog Check Information**

**Criteria**

Motor Transport Division's established practice is to enter the test results of the Hydrocarbons and Carbon Monoxide measurements in the FMS.

**Audit Procedures**

Internal Audits and Inspections Division selected 35 Smog Checks for review. Auditors reviewed the Smog Check data and traced the information in the FMS.

The Department met the standard if the test result on the VIR was entered in FMS accurately.

**Finding**

Thirty-two (94%) of 34 VIR data was entered accurately.

**Objective No. 4(d) – Semi-annual Calibration of the Speedometers**

**Criteria**

Motor Transport Division Manual Section 387.10, Speedometer Calibrations of Department Vehicles, states, "*Speedometers of Department vehicles used to enforce the provisions of the Vehicle code shall be calibrated semi-annually, and the information entered on three copies of the Speedometer Calibration Record, Form 11.30.00.*" The courts have ruled a "reasonable" time frame be used as a guideline for how frequent the speedometer must be calibrated (test for speed accuracy). Therefore, MTD has established the policy that the speed accuracy test be performed semi-annually.

**Audit Procedures**

A review was conducted of 175 (100%) of the vehicles that were calibrated in May 2013. A calculation of six months prior to this date (November 2012) was considered as the timeframe when these vehicles would most likely have been calibrated. A margin for the test of one month before and one month after November 2012 (October 2012 and December 2012) was allowed.

**Finding**

Forty-five (26%) of the 175 vehicles that were calibrated in May 2013, had been calibrated in the previous six month guideline as indicated above.

**RECOMMENDATION**

None.

**ACTIONS TAKEN / MANAGEMENT'S RESPONSE**

On February 4, 2014, IAID auditors and management met with the Commanding Officer, Motor Transport Division, and staff, and discussed the audit findings. Motor Transport Division expressed general agreement with the audit and provided a written response. The Office of Administrative Services also received a copy of this report and expressed general agreement.

## INTRADEPARTMENTAL CORRESPONDENCE

### ADDENDUM

March 6, 2014

10.1

**TO:** Commanding Officer, Internal Audits and Inspections Division

**FROM:** Commanding Officer, Motor Transport Division

**SUBJECT:** RESPONSE TO MAINTENANCE AND REPAIRS AUDIT FINDINGS

Motor Transport Division's (MTD) response to the Maintenance and Repairs Audit findings appear below. Each response is intended to provide clarification.

#### **Objective 1(e)**

For each Preventive Maintenance (PM) standard job action, a PM Check Sheet (PMCS) is printed to assist the technicians in performing specific tasks and to make notations.

While the PMCS is maintained with a closed repair order hard copy, PMCS is only meant to be a temporary note taking document, not a final document. The PMCS, with the entire repair order, is reviewed by the supervisor at the end of each job and the repair order is electronically closed for permanent record keeping. Repair orders will not be closed if items appear to be inaccurate or incomplete on the PMCS. By closing the repair order, the supervisor verifies that all action items on the PMCS are completed and additional notes are added to the electronic repair order if necessary. The electronic document is the final and only document used for fleet related financial and accounting recordkeeping.

The current Fleet Management System (FMS) is outdated and does not have a PMCS feature that can be updated online in the system. The City is in the process of obtaining a new FMS, which has more technologically advanced features and will allow PMCS to be recorded electronically. With the new system enhancement, MTD will gain 100 percent compliance.

#### **Objective 4(d)**

Motor Transport Division has a self-imposed semiannual speedometer calibration testing process. Due to continuous budget cuts resulting in personnel vacancies, MTD's management has had to focus on core functions related to the maintenance of the fleet to ensure officer safety and vehicle reliability. Therefore, MTD was unable to make speedometer testing a high priority. Unfortunately, this trend will most likely continue until MTD obtains an adequate number of technicians and fills its most critical personnel vacancies.

As a result of advances in vehicle technologies, MTD is working with vehicle manufacturers to obtain a statement of accuracy for the speedometer testing in order to stop semiannual

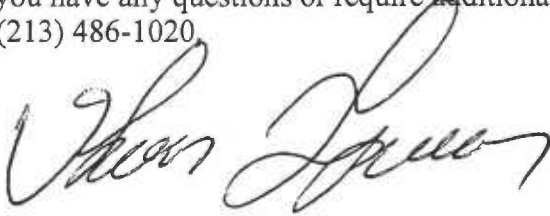
Commanding Officer, Motor Transport Division

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speedometer testing on all newer model vehicles. The newer model vehicles are equipped with computers and digital instruments, rendering the inspection and testing of speedometer systems unnecessary. In the future, faulty speedometers can be identified by the vehicle's internal computer system. The newer systems include trigger warnings that indicate service is required.

If you have any questions or require additional information, please do not hesitate to contact me at (213) 486-1020.

A handwritten signature in black ink, appearing to read "Vartan Yeghayan", written in a cursive style.

VARTAN YEGHIYAN, Director of Police Transportation  
Commanding Officer  
Motor Transport Division

Attachments