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**Audit Report**

**FLEET FOLLOW-UP**

**January 22, 2008**

Office of the City Auditor  
Austin, Texas

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# City of Austin

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Date: January 22, 2008  
To: Mayor and Council  
From: Stephen L. Morgan, City Auditor  
Subject: Fleet Follow-up Audit

I am pleased to present this follow-up audit report on Fleet Services. This audit will examine the status of audit recommendations from two audits issued in 2001, the *Impact of Vehicle Preventive Maintenance on the City's Air Quality Initiative* which contained four (4) recommendations and *Fleet Maintenance and Repair Program: Selected Performance and Management Control Issues* which contained twenty-six (26) recommendations. We selected five of the recommendations for this follow-up audit.

We found that Fleet Services has implemented an emissions inspection and maintenance program since our 2001 audit reports and completes emissions inspections promptly. However, some departments are not always bringing vehicles to Fleet for emissions inspection on time. In addition, Fleet Services has developed procedures for preventive maintenance, improved preventive maintenance turnaround time, and routinely monitors whether departments bring vehicles in for service on time. We also noted that Fleet has implemented several changes that have improved data quality and accessibility, but we still identified some issues with data reliability.

We made four recommendations to Fleet Services that addressed improving departments' timeliness at bringing vehicles in for emissions inspection when due and improving the quality of data available for operations management. Management concurred with all of these recommendations.

We appreciate the cooperation and assistance we received from the staff at Fleet Services during this follow-up audit.

Stephen L. Morgan, CIA, CGAP, CFE, CGFM  
City Auditor



## COUNCIL SUMMARY

This report presents the results of our follow-up work on the *Impact of Vehicle Preventive Maintenance on the City's Air Quality Initiative* audit issued in February 2001 and *Fleet Maintenance and Repair Program: Selected Performance and Management Control Issues* issued in March 2001. The purpose of this follow-up audit is to assess the progress that the department has made toward addressing the original audit findings and implementing selected recommendations set forth in the two original audit reports.

Our five audit objectives were to determine if: (1) the Fleet Officer has implemented an emissions inspection and maintenance program; (2) the Fleet Officer has improved vehicle preventive maintenance turnaround time and documented strategies in departmental planning documents; (3) Fleet has developed and enforced formal control policies and procedures related to data entry, database maintenance, and post-data entry quality assurance; (4) Fleet's Database Administrator has improved information availability to the Fleet Officer for managing service delivery; and (5) Fleet's Database Administrator has improved information reliability in performance reporting.

Overall, we found that Fleet Services has implemented an emissions inspection and maintenance program, which is one way that the City is contributing to improved air quality, and Fleet Service's turnaround time for emissions inspections has improved from FY 2005 to FY 2007. However, some departments need to bring their vehicles in for emissions inspection more promptly.

Within the preventive maintenance program, Fleet Services has developed written procedures, and Fleet's preventive maintenance turnaround time has improved from FY 2005 to FY 2007. However, a few City departments need to bring in their assigned vehicles to Fleet Services for preventive maintenance in a more timely matter.

With regard to information management, Fleet has implemented a new equipment management system and a web-based reporting system, which together improve Fleet's data quality and accessibility. However, we identified some issues with data reliability. We noted some missing data in the equipment management system and a reliability issue with some of the web-based reports. Also, reporting for several performance measures was not accurate and the methodology applied to calculate measures was not always appropriate.

We have issued four recommendations to Fleet Services addressing the need for departments to get vehicles to Fleet more promptly for service and the need for more reliable data for Fleet management.





## ACTION SUMMARY FLEET FOLLOW-UP



Recommendation Text	Management Concurrence	Proposed Implementation Date
01. In order to ensure departments bring in their assigned vehicles on time for emissions inspection, the Fleet Officer should develop and implement a strategy to improve departments' timeliness when bringing vehicles in for inspection and periodically review the percent of vehicles that are late for inspection.	Concur	Planned March 2008
02. In order to ensure data integrity and completeness, management within the Service Centers and Fleet Administration should regularly review detailed emissions inspection and preventive maintenance reports for accuracy and completeness.	Concur	Planned March 2008
03. To improve data reliability, the Fleet Officer should ensure that multiple Fleet employees are trained to query the M4 system and verify the accuracy of data extractions.	Concur	Implemented December 2008
04. In order to ensure performance measures are utilized and calculated correctly, the Fleet Financial Manager should ensure that: <ul style="list-style-type: none"> <li>a. City Budget Office guidance for performance measurement is used to define and document all performance measures,</li> <li>b. Standardized queries accurately reflect definitions and calculation methodologies, and</li> <li>c. Measure results are periodically verified.</li> </ul>	Concur	<ul style="list-style-type: none"> <li>a. Implemented November 2008</li> <li>b. Planned March 2008</li> <li>c. Planned June 2008</li> </ul>



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## BACKGROUND

This audit examined the status of audit recommendations from two audits issued in 2001. The results of the two audits issued in 2001 are outlined below:

The first audit performed at Fleet Services, the *Impact of Vehicle Preventive Maintenance on the City's Air Quality Initiative*, was issued in February 2001 and contained four recommendations for improvement. The recommendations highlighted the fact that Fleet Services needed to schedule all preventive maintenance check-ups for City vehicles maintained by Fleet; develop and implement an emissions system inspection and maintenance program for City vehicles; and hold City departments accountable for complying with the scheduled check-ups and emissions system inspection and maintenance program.

The second audit performed at Fleet Services was *Fleet Maintenance and Repair Program: Selected Performance and Management Control Issues*, was issued in March 2001 and contained 26 recommendations for improvement covering various areas of information and performance management as well as delivery of maintenance and repair services.

### **Fleet Services Mission and Goals**

Fleet Services (Fleet) FY 2007 mission states: *the Fleet Services Division is committed to providing the full range of fleet management services. The division is committed to serving City of Austin departmental needs and continually stays abreast of new technologies and procedures related to fleet management.*

Fleet's established goals for FY 2007 are:

- To keep 95 percent of all city vehicles operational and available at all times.
- To achieve and maintain a 95 percent or higher combined "Excellent" or "Good" customer satisfaction rating on quality, timeliness, and overall satisfaction on all services.
- To improve communications with customers by providing electronic daily Fleet Availability reports on 95 percent of all days and holding annual face-to-face meetings with customers.
- To increase the number of alternative fuel vehicles within the fleet to eight percent.

### **Fleet Services Organization**

Fleet has been a division within the City's Department of Financial and Administration Services (FASD) since FY 1997. The Fleet Officer reports to the City's Chief Financial Officer. The current Fleet Officer has held the position since October 1998, but is scheduled to retire in February 2008. A replacement has not been announced as of October 2007. Prior to the current Fleet Officer, at least eleven other individuals occupied the position over a 20 year period.

Fleet Services facilities include the department Headquarters, eight vehicle maintenance shops and a rental pool, auction and “make ready” facility.

**Fleet Services Responsibilities**

Fleet is responsible for the acquisition, disposal, maintenance, and fueling of vehicles. There are nearly 5,000 vehicles and pieces of equipment of which 3,929 are vehicles as shown in Exhibit 1. Fleet is responsible for the maintenance and repair of City vehicles and equipment. Types of vehicles range from police patrol cars to heavy-duty trucks, off-road equipment, and fire apparatus. In addition, Fleet oversees the rental of vehicles and equipment for its various customer departments. The department also dispenses gasoline and diesel fuels, as well as alternative fuels at over 40 selected sites.

**EXHIBIT 1  
City of Austin Fleet**

<b>Vehicles (Regular &amp; Reserve)</b>	<b>Number of Vehicles as of September 30, 2007</b>
Police/Law Enforcement Vehicles	859
Fire Apparatus	95
EMS Vehicles	69
Light Vehicles	1,645
Solid Waste Packers	136
Buses	9
Other on-road heavy equipment	762
Other rolling stock heavy equipment	354
<b>Total Vehicles</b>	<b>3,929</b>
Other Equipment	921
<b>Total Units</b>	<b>4,850</b>

SOURCE: Fleet Services Administration, November 2, 2007.

**Budget and Staffing**

As shown in Exhibit 2, for FY 2007, Fleet has 196 FTEs and an approved budget of \$32 million. The significant increase in Fleet’s budget between FY 2000 and FY 2007 is primarily due to an \$8 million increase in fuel costs; \$4.2 million increase in total compensation to employees including scheduled pay for performance, city-wide market studies, and a market study specifically for equipment technicians; and \$1.2 million increase in parts. In addition, FY 2000 and FY 2007 numbers do not include the total for general fund vehicle acquisition or replacement.

**EXHIBIT 2  
Budget, FTEs and Fleet Size**

	<b>FY 2000</b>	<b>FY 2007</b>
Total Approved Budget	\$15.7 million	\$32.2 million
Total FTEs	215	196
Total Fleet Size	4,585*	4,850

SOURCE: City of Austin FY 2000 and FY 2007 Budget Documents;  
Fleet Services Administration, November 2, 2007.

\* FY 2000 data reported as of December 19, 2000 in Fleet Audit issued in 2001.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

### **Objectives**

The purpose of this follow-up audit was to assess the progress that Fleet has made toward addressing the original audit findings and implementing selected recommendations set forth in the two original audit reports. More specifically, to determine if:

1. The Fleet Officer has implemented an emissions inspection and maintenance program;
2. The Fleet Officer has improved vehicle preventive maintenance turnaround time and documented strategies in departmental planning documents;
3. Fleet has developed and enforced formal control policies and procedures related to data entry, database maintenance, and post-data entry quality assurance;
4. Fleet's Database Administrator has improved information availability to the Fleet Officer for managing service delivery; and
5. Fleet's Database Administrator has improved reliability of information in performance reporting.

### **Scope**

The audit followed-up on two 2001 audits: *The Impact of Vehicle Preventive Maintenance on the City's Air Quality Initiative* audit and *The Fleet Maintenance and Repair Program: Selected Performance and Management Control Issues* audit. We focused our follow-up work on five of the thirty recommendations contained in the two 2001 audits. We selected these recommendations based on their importance and relevance to Fleet's current operations.

Our data analysis involved FY 2005 to FY 2007 data extracted from the M4 Management System, a comprehensive system used to maintain various types of information to support fleet management. We also reviewed performance data for FY 2005 and FY 2006 reported to the Budget Office through the ePerf system.

### **Methodology**

The audit team used the various methods outlined below in order to conduct this follow-up audit:

- Interviewed Fleet Services personnel including Service Center managers and technicians, accounting staff, operations staff, and upper management.
- Interviewed State inspectors assigned to inspect vehicles at Fleet Service Centers.
- Observed emissions inspection and maintenance program process.
- Conducted data analysis of emissions inspection and maintenance timeliness.

- Examined preventive maintenance turnaround time reports and conducted data analysis on preventive maintenance turnaround time.
- Reviewed policies and procedures related to data entry, database maintenance, and post data entry quality assurance.
- Reviewed reports that the Fleet Officer uses for managing service delivery.
- Examined performance measures, analyzed calculation methodology, and recalculated measures results.

We conducted this performance audit in accordance with generally accepted government auditing standards.

## AUDIT RESULTS

Fleet has made many improvements since the 2001 audit reports. Fleet has implemented an emissions program and has improved its emissions and preventive maintenance turnaround time. In addition, Fleet has substantially more information available for management that was not available in 2001 and Fleet has also implemented new systems that improve data reliability and accessibility. We noted a few areas where Fleet could further improve, including encouraging departments to bring vehicles in more promptly for emissions inspections, improving the reliability of equipment management system data, and strengthening performance reporting.

### **We tested and verified the reported status of five recommendations issued in 2001.**

The two audits issued in 2001 contained 30 recommendations. We tested five of these recommendations and verified the status reported by Fleet management. All five recommendations tested have been implemented by Fleet management.

**EXHIBIT 3  
Summary of Recommendations**

Recommendation (summarized)	Original Status Reported by Management	Last Status Reported by Management	Verified Status
Implement an emissions inspection and maintenance program	Planned	Implemented	Implemented
Develop and enforce formal data control policies and procedures	Planned	Implemented	Implemented
Improve reliability of information used for performance reporting	Underway	Implemented	Implemented
Produce regular reports for use by Fleet management	Underway	Implemented	Implemented
Develop and implement strategies to improve vehicle preventive maintenance turnaround time	Underway	Implemented	Implemented

SOURCE: OCA summary of 2001 management response, 2002 report to Controller's Office by Fleet Management, and OCA analysis.

### **Fleet has implemented an emissions program and Fleet's turnaround time for emissions inspections meets targets. However, some departments need to bring their vehicles to Fleet for inspection more promptly.**

The City of Austin has implemented a formal emissions inspection and maintenance program since the 2001 audit report, which is one way that the City has contributed to reducing ozone levels in Austin. Fleet is completing emissions inspections quickly but some departments need to bring their assigned vehicles to Fleet for inspection more promptly.

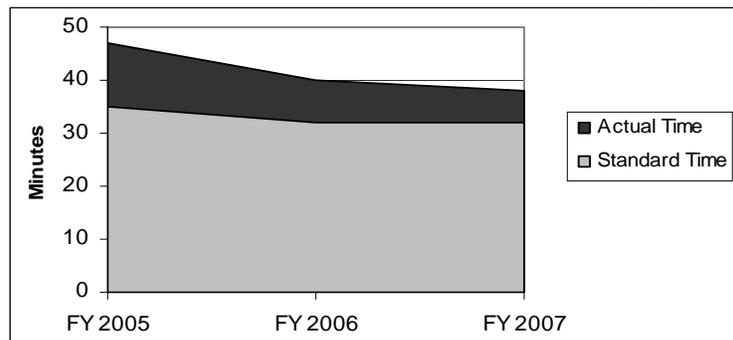
**Fleet Services has implemented an emissions inspection and maintenance program, which is one component of the City’s efforts to reduce ozone levels in Austin.**

Fleet purchased emissions equipment around FY 2002, trained staff on using the equipment, and began testing the equipment. However, the equipment was not dependable and Fleet did not collect data on inspections conducted with the equipment. In FY 2006, Fleet purchased new equipment to implement a more robust emissions program as required in an Early Action Compact agreement between Austin, the Texas Commission on Environmental Quality, and the Environmental Protection Agency. This program requires that all City vehicles have emissions inspections during the annual vehicle inspection. If a vehicle fails the emissions inspection, the technician completes the necessary repairs and retests the vehicle to ensure that the vehicle passes prior to the vehicle being released back to the driver. Fleet collects detailed information on the results of emissions inspections through the M4 Management system.

This emissions program is one contributor to reducing ozone levels in Austin. Through the Early Action Compact agreement, Austin agreed to utilize both voluntary and enforceable emissions-reduction strategies to reduce ozone. These strategies include a mandatory vehicle emissions inspection program for all vehicles in the City, including the City’s fleet, along with eight other regulatory and 162 voluntary emissions reduction measures designed to keep the Austin region’s ozone level at or below 84 parts per billion (ppb). The 2001 audit noted that Austin’s ozone level was 89 ppb, while for the period 2004-2006 Austin’s ozone level was 82 ppb.

**Fleet Services turnaround time for all emissions inspections has improved from FY 2005 to FY 2007.** We analyzed the difference between standard time, which is calculated by Fleet Services based on the average time to complete a job for various types of vehicles, and the actual time (job duration) to determine how long it took Fleet Services to complete an emissions inspection on each vehicle. The data showed that in FY 2005, Fleet technicians took an average of 47 minutes to complete emissions inspections whereas in FY 2007, they only took an average of 38 minutes. For FY 2007, the overall average of 38 minutes was slightly higher than Fleet’s target for standard time of 32 minutes. However, we did note that Fleet did not enter either the standard or actual time into the M4 management system for approximately 8 percent of emissions tests.

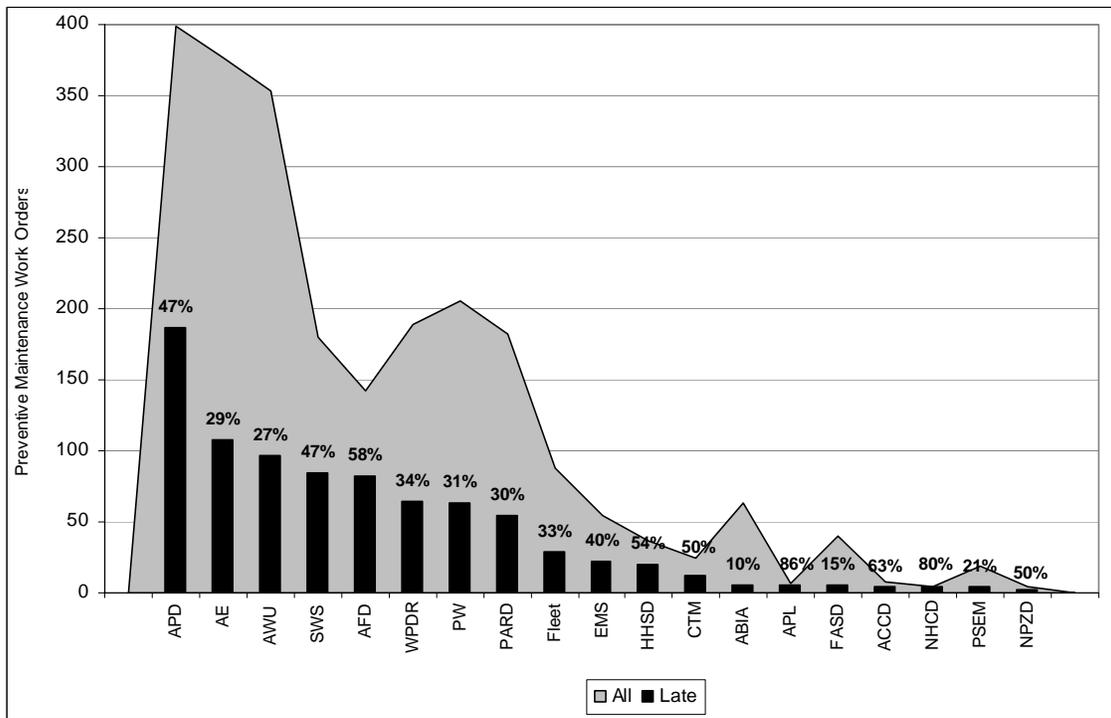
**EXHIBIT 4**  
**Actual versus Standard Time for Emissions Inspections**



SOURCE: OCA Emissions Inspection Data Analysis for FY 2005 to FY 2007.

**Several City departments need to bring in their assigned vehicles to Fleet Services for their annual emissions inspection in a more timely matter.** According to the Emissions Inspection manual, units are due by the last day of the month in which the vehicle is due. For example, a vehicle with a due date of September 25, 2007, is due by the end of September. We compared the last day of the month due to the actual inspection date and found that 37 percent of all vehicles were late for inspection in FY 2006 and 36 percent of all vehicles were late for inspection in FY 2007. Exhibit 5 below shows the number and percent of late emissions inspections by department as well as the total number of emissions inspections conducted for each department. For example, the Austin Police Department (APD) brought 399 vehicles in for emissions inspection during FY 2007 and 187 of those vehicles, or 47%, were late.

**EXHIBIT 5  
Late Emissions Inspections by Department for FY 2007**



SOURCE: OCA Emissions Inspection Data Analysis for FY 2007 data.

NOTE: See Appendix D for City Department Abbreviations.

**Fleet has implemented several strategies which have improved preventive maintenance timeliness; however, some departments need to bring vehicles in more promptly for maintenance.**

Fleet has implemented several strategies to improve preventive maintenance turnaround time, including developing procedures and monitoring timeliness by service center. Since the 2001 audits, preventive maintenance turnaround time has improved

significantly. However, some departments need to bring more of their assigned vehicles to Fleet for preventive maintenance on time.

**Fleet did not create and implement a five year operations plan as recommended in the 2001 audits; however, Fleet has implemented several strategies to improve preventive maintenance turnaround time.** Fleet Services never created and implemented a five year plan. Instead, Fleet developed strategies concerning preventive maintenance turnaround time and included them in their annual business plans. In order to control maintenance costs and vehicle downtime, the FY 2008 Business Plan for Fleet Services emphasizes an increased focus on preventive maintenance programs and improvements to the preventive maintenance notification process.

**Fleet Services has developed procedures for scheduled, unscheduled and after hours maintenance.** Since 2001, Fleet Services has implemented several policies and procedures designed to reduce the impact of downtime due to vehicle maintenance on City operations. For example, several service centers are open and perform maintenance work after normal business hours. These policies and procedures have helped Fleet better manage their preventive maintenance servicing, emissions inspections, and safety checks workload to provide more timely and less disruptive service to departments.

**The number of days to complete preventive maintenance jobs has improved from FY 2005 to FY 2007.** The data in Exhibit 6 shows that on average for all three fiscal years, 88 percent of preventive maintenance jobs were completed within seven days of receiving the vehicle. This percentage was 86 percent for FY 2005 and FY 2006, but increased to 92 percent of all preventive maintenance completed within seven days in FY 2007.

**EXHIBIT 6  
Percent of Preventive Maintenance Jobs Completed by Days**

FY	< 7 Days	7 to 21 Days	21 to 30 Days	31 to 60 Days	Over 60 Days
FY 2005	86%	11%	1%	1%	1%
FY 2006	86%	11%	2%	1%	0%
FY 2007	92%	6%	1%	0%	0%

SOURCE: OCA Preventive Maintenance Data Analysis for FY 2005 to FY 2006.

**Compared to 2001, Fleet has significantly improved its turnaround time.** The 2001 report showed that Fleet was turning around 12 percent of vehicles within one day and 32 percent within three days, which was compared to an industry benchmark of 70 percent within one day and 90 percent within three days. In 2007, we found that Fleet was turning around 68 percent within one day and 79 percent within three days.

**EXHIBIT 7  
Industry Standards Compared to Fleet's Performance**

Turnaround Time	Benchmark	2001 Fleet	2007 Fleet
Within one day	70%	12%	68%
Within three days	90%	32%	79%

SOURCE: 2001 Fleet audit report and FY 2007 M4 data.

**Overall, departments are bringing in vehicles to Fleet Services for preventive maintenance on time, but individually some departments need to bring more of their vehicles in for service on time.** The Fleet Officer monitors preventive maintenance timeliness by service center to ensure that departments are bringing vehicles in on time for maintenance. For FY 2007, 5.3 percent of all vehicles were late for preventive maintenance, and thus 94.7 percent were brought in for service on time.

Individually, however, some departments need to bring more of their assigned vehicles to Fleet for preventive maintenance on time. Exhibit 8 shows the number and percent of late preventive maintenance jobs by department and the total number of preventive maintenance jobs conducted for each department. The top three departments in terms of percent of vehicles late for preventive maintenance are Public Safety and Emergency Management (PSEM), the Neighborhood Planning and Zoning Department (NPZD), and the Health and Human Services Department (HHSD).

**EXHIBIT 8  
Late Preventive Maintenance by Department for FY 2007**

Department	Late for Preventive Maintenance	All Preventive Maintenance Work Orders	Percent Late
PSEM	24	130	18.5%
NPZD	1	7	14.3%
HHSD	11	92	12.0%
ACCD	7	69	10.1%
AFD	31	356	8.7%
CTM	4	46	8.7%
APD	148	1,903	7.8%
WPDR	32	471	6.8%
AE	56	1,073	5.2%
EMS	9	188	4.8%
PARD	11	410	2.7%
FASD*	6	236	2.5%
PW	17	691	2.5%
SWS	13	723	1.8%
AWU	15	850	1.8%
APL	0	15	0.0%
NHCD	0	6	0.0%
ABIA	0	3	0.0%
CCSD	0	3	0.0%
CMO	0	2	0.0%
PIO	0	2	0.0%
<b>Total</b>	<b>385</b>	<b>7,276</b>	<b>5.3%</b>

← Target = 5% late

SOURCE: OCA Preventive Maintenance Data Analysis for FY 2007.

NOTE: See Appendix D for City Department Abbreviations.

\* includes Fleet Services vehicles

**Since 2001 Fleet has implemented several changes that have improved data quality and accessibility, but some data reliability issues remain.**

Fleet has implemented a new equipment management system and a web-based reporting system, which together improve the reliability of Fleet’s data and provide access to data needed to manage Fleet operations. However, some data reliability issues still exist including missing data in certain fields and unreliable performance measure results.

**Fleet has implemented several changes to improve the reliability and accessibility of data used for decision making.** Data from Fleet’s equipment management system supports Fleet’s ability to track, review, and manage performance of service centers. The 2001 audits identified significant issues with data reliability from the equipment management system at the time, called GEMS, and recommended that Fleet develop an IT plan and IT policies to address identified issues. Since the 2001 audits, Fleet has not developed formal IT policies. However, Fleet has implemented a new equipment management system, called M4, which includes many built-in controls over data entry. The vendor of this system has also trained all Fleet employees that use the system and provided system documentation to guide data entry.

In addition, Fleet has implemented a web-based reporting system, called InfoCenter, which allows Fleet management to review standard reports without having to create specialized queries to extract information needed to manage the department. The 2001 audit report recommended that Fleet’s database administrator should produce reports at least monthly from standard queries for the Fleet Officer. The creation of InfoCenter gives the Fleet Officer the ability to review information on a regular basis to track performance for various aspects of the department. Exhibit 9 summarizes reports reviewed by the Fleet officer to monitor overall Fleet performance.

**EXHIBIT 9  
Enhanced Data Accessibility Assists Fleet Officer to Monitor Performance**

<b>Reports Reviewed</b>	<b>Report Description</b>	<b>Frequency</b>
Preventive Maintenance Performance Report	Percent of preventive maintenance past due for each service center.	Monthly
Service Center Report	Fleet Availability rate, cost per mile, total expenses, efficiency and productivity for each service center.	As needed/ongoing
Out of Service Report	Percent of vehicles out of service	As needed/ongoing

SOURCE: OCA Analysis of reports reviewed by Fleet Officer.

As recommended in 2001, Fleet has also created standardized queries for each performance measure in order to improve consistency of performance reporting.

**Improved controls over the equipment management system have reduced some data reliability issues.** In the 2001 audit, auditors performed a data reliability test on closed work orders from the first three quarters of FY 2000 compared to closed work orders from all of FY 2000 extracted from GEMS. The data showed that many records were missing data in specific fields, including the visit reason, service location, description, and serial number. None of these fields were missing data in our data extraction. In addition, the data showed that 10% of work order numbers were entirely missing from the GEMS system. We did not identify any missing work orders in the new M4 system.

**While data controls are stronger now, we noted some issues with the reliability of equipment management system and InfoCenter data.** As part of this follow-up audit, we analyzed emissions inspection and preventive maintenance data from the equipment management system, or M4. During this analysis we noted some data reliability issues. For example, we found that job duration, which shows the amount of time it took technicians to complete a job, contained blanks for both emissions jobs and maintenance jobs.

We also noted data issues when analyzing late preventive maintenance. More specifically, we found that data captured related to late maintenance differs depending on the extraction date and requires extensive manual clean-up prior to reporting. This manual clean-up is not documented, so it is difficult to verify or recreate the reported data.

Fleet should be able to easily extract customized information from M4. We encountered problems in obtaining reliable information from M4 when requesting customized queries. For example, the spreadsheets we received did not have the correct categories, contained blanks, and/or did not include all work orders for requested period. We also obtained data from different sources within Fleet that did not reconcile, and we identified reliability issues when InfoCenter reports on preventive maintenance timeliness are run at the end of the fiscal year instead of monthly.

These issues are likely due to the complexity of the M4 system and the small number of Fleet employees trained to write custom queries. While the issues we encountered may have been unique due to the type and scope of data we were requesting for our audit, they may also impact other queries of the M4 system such as those used for performance measurement or for sharing with other departments.

**In addition, data for several of Fleet's reported performance measures is not reliable and performance measure documentation can be improved.** We conducted a data reliability test on seven of Fleet's performance measures and found that most reported results could not be recreated using Fleet's standard queries. To test the reliability of Fleet's reported performance, we selected seven measures and recalculated the results using the performance measure methodology and standard queries. For FY 2005, only one of the seven measures was within five percent of the originally reported result and only three were within ten percent. For FY 2006, three out the seven measures were within five percent of the originally reported result while five were

within ten percent. Exhibit 10 summarizes the results of our data reliability testing. For more information on the results of our reliability testing, see Appendix C.

**EXHIBIT 10**  
**Performance Measure Reliability Test Results**

Fiscal Year	Number of Measures by Error Rate (Reported vs. Calculated)		
	< 5%	5% - 10%	> 10%
FY 2005	1	2	4
FY 2006	3	2	2

SOURCE: OCA analysis of performance measure results.

Issues with performance measure reliability may stem from Fleet staff not applying consistent methodology, not documenting what was included when calculating the measure results, and not having detailed information on the methodology for each measure. In addition, the employee assembling the performance data may not have the expertise to modify or understand the M4 queries that provide the source data.

In addition, descriptions and definitions for some measures do not reflect what is actually reported. While these problems do not impact the accuracy of the reported results, they may provide an inaccurate picture of Fleet performance. For example, the measure “preventive maintenance dollars as a percent of total maintenance” retrieves the number of preventive maintenance jobs rather than the dollar amount associated with preventive maintenance. Also, the methodology for the measure “average cost of rental or lease” does not specify whether a monthly or daily rate should be used so for FY 2005 the monthly rate was reported and for FY 2006 the daily rate was reported; neither reported number represented an actual average of the rental rates for the specified period.

Fleet staff is currently reviewing the usefulness and accuracy of performance measures. With this effort, Fleet should develop more thorough documentation to ensure consistent methodology for calculating performance results and should monitor and enforce performance measure controls to ensure accuracy of data.

## Recommendations

01. In order to ensure departments bring in their assigned vehicles on time for emissions inspection, the Fleet Officer should develop and implement a strategy to improve departments' timeliness when bringing vehicles in for inspection and periodically review the percent of vehicles that are late for inspection.

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**MANAGEMENT RESPONSE:** CONCUR.

1. Adjust our annual emission inspections schedule to an 11 month interval to ensure inspections are completed on or before due date.
2. Notify departments of emissions inspection due dates via email
3. Develop exception reports for follow up on departments that do not comply.
4. Identify key departmental contacts to ensure that non compliance is handled quickly.

Implementation Status: Planned

Implementation Date: March 2008

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02. In order to ensure data integrity and completeness, management within the Service Centers and Fleet Administration should regularly review detailed emissions inspection and preventive maintenance reports for accuracy and completeness.

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**MANAGEMENT RESPONSE:** CONCUR.

1. To ensure data integrity, Fleet will track, report and review preventive maintenance and emissions inspection data separately.
2. Fleet will develop and monitor exception reports to identify data inconsistencies.

Implementation Status: Planned

Implementation Date: March 2008

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03. To improve data reliability, the Fleet Officer should ensure that multiple Fleet employees are trained to query the M4 system and verify the accuracy of data extractions.

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**MANAGEMENT RESPONSE:** CONCUR.

Fleet has hired 2 additional FTE's to support the Technical Services division and both have been trained on M4 queries.

Implementation Status: Implemented

Implementation Date: December 2008

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04. In order to ensure performance measures are utilized and calculated correctly, the Fleet Financial Manager should ensure that:
- d. City Budget Office guidance for performance measurement is used to define and document all performance measures,
  - e. Standardized queries accurately reflect definitions and calculation methodologies, and
  - f. Measure results are periodically verified.

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**MANAGEMENT RESPONSE: CONCUR.**

- a. Fleet has completed the budget office recommended "Self assessment" of its performance measures and has submitted its recommended changes to the budget office.
- b. Fleet will review existing queries to make sure that they accurately reflect the intended performance measure objectives.
- c. Fleet management will periodically perform reviews and data assurances on performance measures as a means of verification

Implementation Status:

- a. Implemented
- b. Planned
- c. Planned

Implementation Date:

- a. November 2008
  - b. March 2008
  - c. June 2008
-

**APPENDIX A**  
**MANAGEMENT RESPONSE**



**ACTION PLAN  
FLEET FOLLOW-UP AUDIT**

<b>Rec #</b>	<b>Recommendation Text</b>	<b>Concurrence</b>	<b>Proposed Strategies for Implementation</b>	<b>Status of Strategies</b>	<b>Responsible Person/ Phone Number</b>	<b>Proposed Implementation Date</b>
01	In order to ensure departments bring in their assigned vehicles on time for emissions inspection, the Fleet Officer should develop and implement a strategy to improve departments' timeliness when bringing vehicles in for inspection and periodically review the percent of vehicles that are late for inspection.	Concur	<ol style="list-style-type: none"> <li>1. Adjust our annual emission inspections schedule to an 11 month interval to ensure inspections are completed on or before due date.</li> <li>2. Notify departments of emissions inspection due dates via email</li> <li>3. Develop exception reports for follow up on departments that do not comply.</li> <li>4. Identify key departmental contacts to ensure that non compliance is handled quickly.</li> </ol>	Planned	Bruce Kilmer -974-1531	March '08
02	In order to ensure data integrity and completeness, management within the Service Centers and Fleet Administration should regularly review detailed emissions inspection and preventive maintenance reports for accuracy and completeness.	Concur	<ol style="list-style-type: none"> <li>3. To ensure data integrity, Fleet will track, report and review preventive maintenance and emissions inspection data separately.</li> <li>4. Fleet will develop and monitor exception reports to identify data inconsistencies.</li> </ol>	Planned	Bruce Kilmer -974-1531	March '08
03	To improve data reliability, the Fleet Officer should ensure that multiple Fleet employees are trained to query the M4 system and verify the accuracy of data extractions.	Concur	Fleet has hired 2 additional FTE's to support the Technical Services division and both have been trained on M4 queries.	Implemented	Bruce Kilmer -974-1531	December '08

Rec #	Recommendation Text	Concurrence	Proposed Strategies for Implementation	Status of Strategies	Responsible Person/ Phone Number	Proposed Implementation Date
04	<p>In order to ensure performance measures are utilized and calculated correctly, the Fleet Financial Manager should ensure that:</p> <ul style="list-style-type: none"> <li>a. City Budget Office guidance for performance measurement is used to define and document all performance measures,</li> <li>b. Standardized queries accurately reflect definitions and calculation methodologies, and</li> <li>c. Measure results are periodically verified.</li> </ul>	<ul style="list-style-type: none"> <li>a. Concur;</li> <li>b. Concur</li> <li>c. Concur</li> </ul>	<p>A. Fleet has completed the budget office recommended “Self assessment” of its performance measures and has submitted its recommended changes to the budget office.</p> <p>B. Fleet will review existing queries to make sure that they accurately reflect the intended performance measure objectives.</p> <p>c. Fleet management will periodically perform reviews and data assurances on performance measures as a means of verification.</p>	<ul style="list-style-type: none"> <li>a. Implemented</li> <li>b. Planned</li> <li>c. Planned</li> </ul>	<ul style="list-style-type: none"> <li>a. Mike Hendon – 974-1793</li> <li>Allison Wood – 974-1796</li> </ul>	<ul style="list-style-type: none"> <li>a. November ‘08</li> <li>b. March ‘08</li> <li>c. June ‘08</li> </ul>

*T. Wiegand*

Department Director

1-15-2008

Date

Assistant City Manager or Designee

1-18-2008

Date

**APPENDIX B**

**FLEET FOLLOW-UP AUDIT TESTED RECOMMENDATIONS**



## Fleet Follow-Up Audit Tested Recommendations

- A1      Impact of Vehicle Preventive Maintenance on the City's Air Quality Initiative                      Feb-2001**
- A2      Fleet Maintenance and Repair Program: Selected Performance and Management Control Issues                      Mar-2001**

<b>Audit #</b>	<b>Rec #</b>	<b>Recommendation</b>	<b>Response</b>	<b>Response Text</b>	<b>Implementation Status</b>
A1	3	Fleet Officer should implement an emissions inspection and maintenance program to begin in FY 02.	Agree	Fleet Services is preparing to purchase the equipment and implement procedures to accomplish this. Fleet estimates this will be in place October 31, 2001.	Underway October 2001
A2	17	Fleet should develop and enforce formal control policies and procedures related to data entry, database maintenance and post data entry quality assurance.	Agree	We understand this to be subsumed in the "comprehensive" plan discussed in recommendation 15.	Planned
A2	19	To improve reliability of information in performance reporting, Fleet's database administrator should:  <ul style="list-style-type: none"> <li>- Prepare standardized queries for each measure reported,</li> <li>- Define as the appropriate data set work orders completed within the reporting period, and</li> <li>- Filter out work orders with zero or credit charges.</li> </ul>	Agree	The Fleet Office will provide clear guidelines for grouping specific M&R jobs to indicate if they are brought into the Service Centers as: Preventive Maintenance, Scheduled Maintenance, Unscheduled Maintenance or Non Maintenance.  Fleet financial monitoring employees will soon be trained in data retrieval and reporting on the new M/4 system. This training (Crystal Reports), in conjunction with the report server, query library, and data dictionaries will make uniform what were once ad hoc reports and queries. Fleet will budget for expert contract support to write data definitions and formulae, to document and catalogue our reports, and to train report writers and financial personnel. The goal will be able to understand the end produce of their research with an emphasis on accuracy of data, consistency with prior reporting periods, and timeliness of submission.	Underway October 2001

Audit #	Rec #	Recommendation	Response	Response Text	Implementation Status
A2	18	In order to improve information available to the Fleet Officer for managing service delivery, Fleet's database administrator should produce reports at least monthly from standing queries on measure the Fleet Officer selects from each of the goal categories listed in Exhibit 4 of this report.	Agree	The setup, definition and reporting of these items will be tied directly to either an ICMA measure, an internally reported measure, or Business Plan measure. Fleet's goal is to shrink the number of measures reported to those that correct internal procedural errors, answer benchmarking questions such as ICMA, or are useful in reporting success of Fleet's operations. The queries of interest will be written and added to the query libraries.	Underway October 2001
A2	24	<p>To improve vehicle preventive maintenance turnaround time, the Fleet Officer should include in the 5-year plan he is currently adopting some of the following or other strategies of which he aware:</p> <ul style="list-style-type: none"> <li>- As deemed appropriate, deferring additional maintenance and repair work identified during a vehicle PM check-up to a later scheduled date and time,</li> <li>- Conducting vehicle PM during customer non-operation hours either at a Fleet Service Center (during an evening work shift) or at customer's on-site location, and/or</li> <li>- Conducting PM on-site at customer's location through use of an outside vendor during customer non-operation hours.</li> </ul>	Agree	Fleet has been meeting with individual departments and instructing each department's personnel on the proper techniques of scheduling PMs and follow-up repairs. All personnel area aware of Fleet's attempt to minimize down time by using all of the recommended measures.	Underway October 2001

**APPENDIX C**

**ASSESSMENT OF SELECTED FLEET SERVICES  
PERFORMANCE MEASURES**



### Assessment of Selected Fleet Services Performance Measure

#	Activity	Performance Measure	Definition Provided by Fleet	Auditor Comments on SQL Query and/or Measure Definition	FY 2005 Actual	FY 2005 Test Results	FY 2005 Error Rate	FY 2006 Actual	FY 2006 Test Results	FY 2006 Error Rate
1	Preventive Maintenance	Preventive maintenance dollars as a percent of total maintenance	Total number of PM "jobs" divided by the total number of maintenance "jobs".	Fleet has been reporting PM jobs instead of the dollar amounts.	12.00	11.00	8%	15.75	15.75	0%
2	Preventive Maintenance	Fleet Availability Rate	Average daily number of vehicles out of service divided by total number of vehicles available minus 100%	No issues found with query.	94.00	91.72	2%	94.00	93.41	1%
3	Preventive Maintenance	Average number of Days Out of Service for Preventive Maintenance	Average number of days between PM job opening and PM job close.	The query measures Scheduled Maintenance and not Preventive Maintenance as per the definition.	3.42	3.72	-9%	3.44	3.22	6%
4	Rental Pool	Average cost of rental or lease	Total rental pool cost divided by total number of rentals and leases.	Definition is not specific about what is being measured and how often. Also, for FY 2005 monthly rate was reported and for FY 2006 daily rate was reported.	700.00	775.45	-11%	51.00	38.64	24%
5	Scheduled Maintenance	Scheduled Maintenance as a percentage of total maintenance	The total number of SM jobs divided by the total number of maintenance jobs.	No issues found with query.	34.00	41.00	-21%	38.84	38.80	0%

#	Activity	Performance Measure	Definition Provided by Fleet	Auditor Comments on SQL Query and/or Measure Definition	FY 2005 Actual	FY 2005 Test Results	FY 2005 Error Rate	FY 2006 Actual	FY 2006 Test Results	FY 2006 Error Rate
6	Scheduled Maintenance	Number of scheduled maintenance work orders completed per month	Number of scheduled maintenance work orders completed per month	This query includes Maintenance Jobs and not Scheduled Maintenance jobs as per definition.	11,221	7,467	33%	11,036	7,091	36%
7	Scheduled Maintenance	Number of patrol sedan Scheduled Maintenance visits scheduled per month	Total number of SM jobs for patrol sedans per month.	No issues found with query.	1,156	1,008	13%	1,152	999	13%

**APPENDIX D**  
**ABBREVIATIONS FOR CITY DEPARMENTS**



## Abbreviations for City of Austin Departments

Abbreviation	Department
ABIA	Austin Bergstrom International Airport
ACCD	Austin Convention Center Department
AE	Austin Energy
AFD	Austin Fire Department
APD	Austin Police Department
APL	Austin Public Library
AWU	Austin Water
CCSD	Community Care Services Department
CMO	City Manager's Office
CTM	Communications and Technology Management
EMS	Emergency Medical Services
FASD	Financial and Administrative Services Department
Fleet	Fleet Services
HHS	Health and Human Services Department
MuniCourt	Municipal Court
NHCD	Neighborhood Housing and Community Development
NPZD	Neighborhood Planning and Zoning Department
PARD	Parks and Recreation Department
PIO	Public Information Office
PSEM	Public Safety and Emergency Management
PW	Public Works
SWS	Solid Waste Services
WPDR	Watershed Protection and Development Review