

**LOGISTICS AND ASSET MANAGEMENT
FLEET MAINTENANCE DIVISION
FLEET OPERATIONS AND MAINTENANCE
AUDIT 15 – 15
JANUARY 17, 2017**



CITY OF TAMPA

Bob Buckhorn, Mayor

Internal Audit Department

Christine Glover, Internal Audit Director

January 17, 2017

Honorable Bob Buckhorn
Mayor, City of Tampa
1 City Hall Plaza
Tampa, Florida

RE: Fleet Operations and Maintenance, Audit 15-15

Dear Mayor Buckhorn:

Attached is the Internal Audit Department's report on Fleet Operations and Maintenance.

We thank management and staff of Fleet Maintenance for their cooperation and assistance during this audit.

Sincerely,

/s/ Christine Glover

Christine Glover
Internal Audit Director

cc: Dennis Rogero, Chief of Staff
Sonya Little, Chief Financial Officer
Ocea Lattimore, Director of Logistics and Asset Management
Connie White-Arnold, Interim Fleet Manager, Fleet Maintenance Division

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/s/ Stephen Mhere

Auditor

/s/ Christine Glover

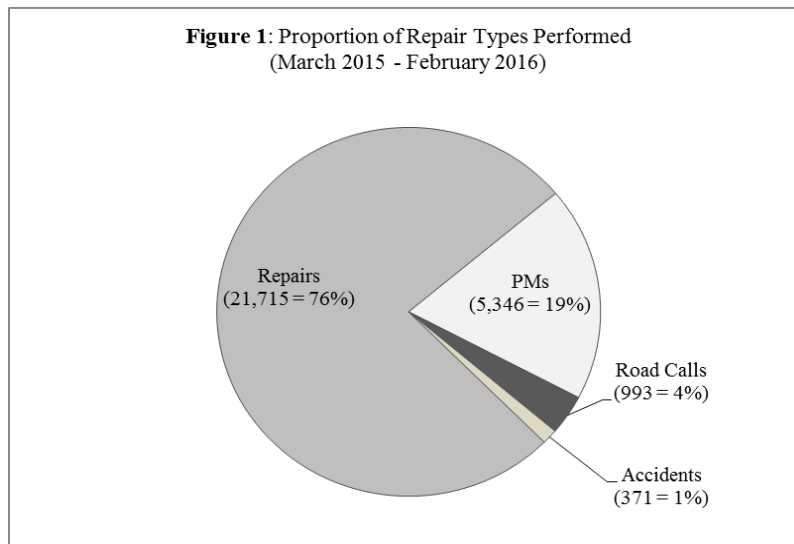
Audit Director

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BACKGROUND

City of Tampa (COT)'s Fleet Maintenance Division is responsible for the maintenance of City vehicles and equipment. It also manages the City's fuel program and helps departments and divisions by making recommendations regarding the replacement of vehicles. As of April 2016, Fleet had a total staff complement of 51, of whom 30 were technicians and 5 service attendants. Division operations are carried out at two facilities, one of which is dedicated to Tampa Fire Rescue (TFR) apparatus and equipment. There are 61 repair bays at the central garage complex and eight at TFR. COT's equipment inventory report ran in September 2015 listed 3,459 vehicles and equipment, 2,656 of them on-road units.

COT's fleet is significantly old. Analysis of age distribution of vehicles shows approximately 66% of them are at least 7 years old, 16% are between 4 and 6 years old, and 18% are 3 years or newer. COT's aging fleet presents an operational challenge for the Fleet Maintenance Division. As vehicles get older, maintenance requirements increase and the proportion of unscheduled repairs tends to increase relative to scheduled maintenance. Preventive maintenance (PM) should constitute at least 50% of a fleet operation's work – research shows some public entities have achieved ratios ranging from 50% to 74%.¹ Between March 2015 and February 2016, PM constituted less than 20% of Fleet's workload (Figure 1).



Source: System-generated Repair Reason Frequency report provided by Fleet.

In making recommendations for vehicle replacement, Fleet uses the vehicle's age, mileage, reliability, and maintenance cost to determine its replacement eligibility. The final decision to purchase vehicles is made by the user departments, with input from Revenue & Finance. As of February 2016, the replacement list contained 902 vehicles and equipment.

¹ Ammons, D. N. (2012). *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 3rd Edition.

STATEMENT OF OBJECTIVES

This audit was conducted in accordance with the Internal Audit Department's FY2016 Audit Agenda. The objectives of the audit were to:

1. Determine if passenger vehicles on the COT Fleet are properly and fully utilized according to Fleet's established minimum mileage policy.
2. Determine if Fleet's preventive maintenance program is achieving its goal to perform at least 90% of all PMs on time.
3. Determine how the productivity of Fleet's mechanics/technicians compares with the division's internal objective or national average.

STATEMENT OF SCOPE

This audit evaluated Fleet's operations and maintenance activities for FY2015 and FY2016 (October 2015 through April 2016). Tests were performed to determine the division's fulfillment of goals and objectives in the areas of vehicle utilization, vehicle down time, productivity of mechanics, and effectiveness of the preventive maintenance program. Original records and system-generated reports were used as evidence, and were verified through observation and physical examination. We did not take an in-depth analysis of the fuel program because it received sufficient coverage in a previous study by a consultant in 2014. Also, an audit for the Neighborhood Enhancement Division that we completed in April 2016 with a limited scope on fuel operations did not identify any major issues.

STATEMENT OF METHODOLOGY

Our audit work involved a review of Fleet's policies and procedures as well as a report of a Fleet Maintenance Study completed on behalf of COT by a consultant in 2014. We reviewed mechanic job descriptions, and interviewed mechanic supervisors, the Interim Fleet Manager, and the director of the department in charge of fleet. We also conducted surveys of Vehicle Coordinators (VCs) as well as technicians and service attendants. Our audit analyses used records as well as reports from FASTER, a management information system the division uses for fleet operations.

STATEMENT OF AUDITING STANDARDS

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

NOTEWORTHY ACCOMPLISHMENTS

Below are some of Fleet Maintenance's noteworthy accomplishments:

1. In 2016 Fleet received the Blue Seal of Excellence certification from the National Institute for Automotive Service Excellence (NIASE). This is in recognition of staff surpassing NIASE's professional qualification standards for technicians.
2. COT's Fleet is ranked 38th in the "100 Best Fleets in the Americas" program. The program recognizes 100 public sector fleets for their accomplishments, including accountability, use of technology, staff development, and other achievements.

3. The division implemented a program to improve its communication with VCs. Monthly meetings are now being held to enhance communication and train VCs in relevant areas of Fleet operations.
4. The division has also established internal vehicle status reports. Customer Service uses these reports to update user departments on the status of vehicles for each repair line.

AUDIT CONCLUSIONS

Based upon the test work performed and the audit recommendations noted below, we conclude that:

1. Some vehicles on the COT fleet are not being fully utilized according to policy. It appears about 27% of the fleet was underutilized during the period May 11, 2015, through May 11, 2016.
2. For FY2015, the PM program achieved its goal of performing at least 90% of all PMs on time – only 4% PMs were overdue. However, for the first seven months of FY2016 (October 2015 through April 2016), 84% of scheduled PMs were performed on time, slightly less than the objective.
3. With respect to the productivity performance metric Fleet is currently using – ratio of billable time to total time – the division is exceeding the national standard of 70%.

VEHICLE UTILIZATION

STATEMENT OF CONDITION: COT Fleet Policy requires annual review of passenger vehicles that accrue less than 4,000 miles in the previous fiscal year. These vehicles are considered underutilized and Departments are required to certify that the underutilized vehicles are necessary for completion of their mission and provide the reason for the low mileage.

Our analysis of vehicle utilization for the period May 11, 2015, through May 11, 2016, noted approximately 27% of the City's fleet is underutilized. Specifically, we identified 126 vehicles that had no miles for the period reviewed and 599 vehicles with less than 4,000 miles.

CRITERIA: It is the policy of the City of Tampa to provide vehicles to each department to assist in accomplishing the department's mission, subject to certain conditions. It is the responsibility of each Department Director to determine the appropriate number of vehicles necessary to perform the Department's mission, and to ensure that City vehicles assigned to the Department are properly and fully utilized. COT Fleet Policy establishes minimum mileage criteria of 4,000 miles per year for passenger vehicles.

CAUSE: It appears that the underutilization policy is not being enforced and Departments are keeping vehicles that should be reassigned or discarded. Alternatively, FASTER is not being updated when vehicles are discarded.

EFFECT OF CONDITION: The City is potentially carrying an excessive inventory of vehicles that must be maintained, stored, and secured. If FASTER is not being updated when vehicles are discarded management does not have accurate information available to effectively oversee the City's fleet.

RECOMMENDATION 1: Fleet should work with the Departments and Administration to identify vehicles that should be reassigned or discarded and the appropriate action should be taken. Going forward, Fleet should take the necessary steps to ensure the established policy requiring an annual review and certification of need for underutilized vehicles is enforced. Fleet should also ensure that FASTER is current and provides accurate data to be used in managing the City's fleet.

MANAGEMENT RESPONSE: Concur.

Fleet will re-establish and implement a *COT Vehicle Utilization Program*. This directive will supersede all previous utilization policies. With Administrative support and approval, the policy will establish and define concise, written guidelines for vehicle utilization for COT departments. The establishment and implementation of this policy will ensure the "right-sizing" and management of departmental vehicles with Fleet oversight. Working with our user departments, this will in turn provide for timely, accurate assignment, acquisition, rotation, and disposition information entered into the FASTER database. Fleet has identified 180 potentially underutilized vehicles for reduction in CY16. Approximately 90 vehicles have been received by Fleet for reallocation, reutilization or auction. The remaining CY16 underutilized vehicles are scheduled (by department), for completion of reduction by February 15, 2017. This will be a continuous annual program with underutilized vehicles identified, reallocated, reutilized or auctioned within the current year of being identified.

TARGET IMPLEMENTATION DATE: A draft policy will be completed for Administration approval by February 1, 2017.

PREVENTIVE MAINTENANCE

STATEMENT OF CONDITION: Fleet tracks preventive maintenance activities, including due dates, in the FASTER information system. During the month preceding a vehicle's PM due date, Fleet sends a notification email to the VC of the respective department or division. In turn, the coordinator notifies employees to whom the vehicles are assigned to remind them of the upcoming PM schedule. Departments can either schedule appointments or drop off their vehicles at their convenience. Depending on workload, operators may wait while PMs are performed. There is no option for appointments for heavy equipment PMs completed in the lube rack. Our review noted that in FY2015, 4,488 PMs were completed and 2,231 have been completed for the first 6 months of FY2016.

Past due PMs are defined as more than 15 days late or more than 15% of the mileage interval recommended for PM cycles. For FY2015, 4% of PMs were past due and 16% of PMs are past due for the first 6 months of FY2016. When vehicles miss their scheduled PMs, Fleet sends an 'Overdue PM' notification email to respective departments/division heads to notify them and solicit help bringing those vehicles in. This email also includes any other vehicles that might have missed previous consecutive scheduled PMs. We reviewed some of the notification emails sent to six departments (Water, Tampa Police, Transportation & Water, Parking, and Risk, Safety, & Loss Prevention) in the first week of September 2015. They showed 177 vehicles had missed their scheduled PMs the previous month. Some had missed for more than one year.

CRITERIA: The primary objective of a fleet maintenance program is to establish PM practices that are consistent and compliant with schedules specified by equipment/vehicle manufacturers. This helps to ensure vehicle safety and aids in extending the useful life of vehicles. The goal for the Fleet Division is to perform 90% of all PMs on time.

CAUSE: Users (departments and divisions) do not bring in vehicles for PM when they are due. This may be because operators prioritize the use of vehicles over their timely maintenance. Additionally, there appears to be a perception that maintenance may not be completed timely. However, failure to provide vehicles for timely PMs can result in more extensive and costly repairs that take more time to complete.

EFFECT OF CONDITION: If PMs are performed in a manner that is inconsistent or noncompliant with manufacturer guidelines, the result may be the deterioration of performance and safety of equipment/vehicles. The useful lifecycle of the equipment may also be shortened. Also, there is a risk for incurring higher repair costs in the long run.

RECOMMENDATION 2: In order to improve preventive maintenance compliance for COT's vehicles and equipment, we recommend that Fleet continue to work with department heads, vehicle coordinators, and vehicle operators to formulate a more effective approach to improve the rate at which operators bring in vehicles for their scheduled PMs. Items that may be considered include modifying work hours so that PMs can be performed when vehicles are not needed by the departments (provided adequate head count is available), elevating past due reporting to the Administration level, and the possibility of utilizing additional tools to ease scheduling.

MANAGEMENT RESPONSE: Turning in of vehicles for required Preventative Maintenance (PM) service has become a problem. Fleet will continue to explore internal solutions, as well as work with departments to resolve this issue. To date, Fleet has currently revamped the PM program to insure we

are capturing vehicle usage, i.e., mileage, fuel consumption etc., and managing the program as efficiently and effectively as possible. We have requested additional personnel, as well as funds through the budget system to procure an Oil Analyzer. This advanced, modern technology will ensure immediate determination of an oil change (vs. *inspection only*) which in turn, will expedite vehicle downtime. Fleet is also working with T&I to develop an online PM appointment system (similar to COT Training appointment system), to be placed on the Fleet webpage for improved vehicle scheduling. In addition, Fleet will begin to route PM overdue reports to the Administration level. With Administration approval, Fleet is researching the implementation of a surcharge (late fee) on any PM overdue in excess of 30 days.

TARGET IMPLEMENTATION DATE: Anticipated dates for implementation are as follows:

- | | |
|--|-----------------------------------|
| a) Completion of PM program overhaul: | Completed |
| b) Purchase of oil analyzer: | Completed |
| c) Completion of PM appointment system: | Completed |
| d) Routing of overdue PMs to Administration: | Completed |
| e) Imposition of late fee on overdue PMs: | Upon approval from Administration |

UPDATED MANAGEMENT RESPONSE: After the implementation of the PM program, the percentage of late PMs has been reduced from 14% to 4% overdue. This has been tracked since we revamped the PM program dating back to May 2016. FASTER has been upgraded with the latest version, 6.2. In addition Fleet was approved three additional positions to be hired/funded FY17. The positions have already been posted.

COMMUNICATION WITH VEHICLE COORDINATORS

STATEMENT OF CONDITION: To better manage vehicle repair and the preventive maintenance program, the Fleet Maintenance Division coordinates its activities with designated employees from various City departments and divisions. These employees are known as Vehicle Coordinators (VCs). Every department or division that is assigned a city vehicle to aid in the execution of its daily operations has at least one VC. Their primary role is to be Fleet's liaisons for issues related to preventive maintenance and repair of vehicles.

We conducted a survey of all VCs to get their opinions about services their departments/divisions receive from Fleet. Sixteen out of 17 were able to respond. The majority of respondents expressed general satisfaction with most of the services they receive. However, they also expressed concern in a few areas, including access to the FASTER information system and communication. More than half expressed the general view that communication with Fleet needs improvement. Specifically, they want more timely notification from Fleet when preventive maintenance is completed on vehicles. They also want updates when repair work takes longer than anticipated, particularly when there are delays in procuring spare parts or when vehicles are sent to sublet contractors.

CRITERIA: Fleet's goal is to maximize the amount of time vehicles are in service and thus has adopted Faster Asset Solutions² Vehicle Availability Rate (VAR)³ of 90% as its standard. Poor communication of vehicle status can have a negative impact on departmental productivity as well as the ability to obtain this goal. A performance report by the division shows that the VAR for the months of February 2015 through February 2016 did not attain the 90% standard: it fluctuated between 81.3 and 89.2%.

CAUSE: Currently, Fleet does not have a documented policy dealing with customer notification when vehicles are ready to be returned to service after undergoing preventive maintenance or repair. However, according to staff members in the division's Customer Service Center, the adopted practice is to notify customers as soon as repair work is completed and mechanics turn in their work orders.

Fleet's ability to effectively communicate with VCs has sometimes been impacted by outside entities the division uses to provide needed services. For example, vehicles that cannot be driven to the City's maintenance yard are towed in by a professional towing company with which the City has a contract. During business hours, the contractor's tow-truck operator bringing in a disabled vehicle should notify Fleet's Customer Service personnel by handing them the towing invoice and vehicle keys. After hours, these items should be dropped off in a designated drop box. However, on a number of occasions the contractor has not followed these protocols: sometimes vehicles have been dropped off at the maintenance yard without Fleet being aware of it. This has caused delayed repair work scheduling as well as untimely notification of customers.

Also, according to Customer Service staff, they do not proactively provide information to departments regarding spare parts on order. Any status updates in such situations are provided only upon request. The reason for this is that sometimes the supplier of the parts may not have information about when the parts may be in their inventory. Other times it might be that there may be a long waiting list for parts as is the case when vehicles are recalled by manufacturers.

² Faster Asset Solutions is the software vendor for a popular fleet management system adopted by COT.

³ Vehicle Availability Rate is a ratio of the amount of time a vehicle is available for use relative to its working schedule.

EFFECT OF CONDITION: When VCs do not receive notification to get their vehicles as soon as they are ready, the vehicles stay uncollected at the maintenance facility longer than necessary. This prolongs the vehicles' out-of-service status and their unavailability for use. When this happens, Fleet's ability to achieve the stated VAR goal of 90% is jeopardized, and more importantly, the effectiveness of City operations may be compromised.

RECOMMENDATION 3: We recommend that Fleet consider implementing the following:

1. Establish and document customer notification and communication procedures to help improve the effectiveness of information-sharing between the division's Customer Service Center and departments/divisions.
2. Implement a structured approach, including written protocols and/or training if necessary, that vehicle towing service contractors should follow when handing over towed-in vehicles to the Fleet Maintenance Division.

MANAGEMENT RESPONSE: Concur.

1. A VC's active program has been established and began Oct 2015. Fleet held a very informative initial meeting identifying and updating VC contact information, supplying VC binders with pertinent Fleet information, relevant guest speakers, as well as scheduling monthly "appointments" for meeting reminders. We will meet as often as needed to inform, instruct, or disseminate guidance, or at least monthly. In addition we are actively reviewing and enhancing Customer Service (CS) processes to ensure better communication with our customers. We have internally implemented "vehicle status reports" completed daily by workcenter supervisors (and turned in to CS) to ensure Customer Service personnel have vehicle status information readily available to inform VCs as needed. In addition, we are in the process of determining a potential reorganization of this workcenter to ensure we are delivering the most efficient and effective service to our customers.
2. Fleet's towing service is a contracted vendor. Their performance is bound by the conditions and instructions put forth by the contract. It is Fleet's responsibility to monitor and ensure satisfactory execution of the contract. Our present towing company's performance has been deemed unsatisfactory. Fleet has recommended "nonrenewal" of the contract. A new towing company was selected, and began at the end of May 2016.

TARGET IMPLEMENTATION DATE: Effective immediately...implementations are presently ongoing.

P-CARD RECONCILIATIONS

STATEMENT OF CONDITION: COT runs a Purchasing Card (p-card) Program to enable City departments and divisions to procure goods and services expeditiously. Under the p-card program, credit cards issued by a major bank are assigned to authorized City employees who will use them to make purchases on behalf of their respective department and/or division. According to policy, single p-card transactions should be less than \$2,000 and can be completed over the counter, telephone, or Internet, or by mail or fax. Therefore, the p-card program not only brings convenience to the purchasing process but also reduces the cost of procuring small items.

Records show that in FY2015, 19 members of Fleet Maintenance were assigned p-cards which they used to make 1,549 transactions, for a total amount of \$637,667. One of these cardholders is also responsible for reconciling the division's purchase receipts with bank transaction records. This p-card holder was responsible for about 7.2% of the transactions (totaling \$18,685); 14 others completed fewer than 5% of the total division transactions each.

CRITERIA: Purchasing and reconciliation of purchasing transactions are incompatible functions that pose a risk to the effectiveness of internal controls when performed by one individual. Accounting best practice standards require such functions to be segregated. This practice reduces the risk of inappropriate actions and/or inadvertent errors committed by employees going undetected.

CAUSE: COT has not adopted a citywide policy on segregation of duty controls in the p-card program because some departments and divisions have staffing constraints. As such, Fleet utilizes its staff in a manner that best suits its operations, which includes having a member of the office administrative staff perform limited cardholder functions as well as reconciliation responsibilities.

EFFECT OF CONDITION: Citywide internal controls mitigate risks associated with the lack of separation of duties in the p-card program. These controls include the training of all p-card holders before credit cards are assigned to them as well as the oversight management exercises over the purchase and reconciliation processes. However, the internal control environment is still compromised if incompatible functions are not segregated. This leaves the division potentially vulnerable to inappropriate activities, wasteful spending, and purchase of goods and/or services without a clear public purpose justification.

RECOMMENDATION 4: Fleet Maintenance's p-card transactions over the FY2015 period show that most of the division's purchases were performed by only a few individuals. As such, we recommend management consider the following:

- a) Evaluate the division's staffing constraints with respect to the number of p-card holders necessary for its purchasing needs. Depending on the evaluation, consider implementing segregation of duty policy where members who are given the division's p-card purchasing responsibilities do not also perform p-card reconciliation and vice versa.
- b) Document the separation of duty policy so that it provides guidance for future division employees who may assume these, or other similarly incompatible, responsibilities.

MANAGEMENT RESPONSE: Concur.

As the City moves forward with adopting a policy on segregation of duties for p-card holders and reconcilers, Fleet will in addition examine ways to separate the duties. However, due to present personnel constraints, the need to continue this practice must exist until such time that permanent positions (Fleet Manager, Superintendent/Workcenter Supervisor) are determined. At that time, the Superintendent/Workcenter Supervisor will assume the purchasing duties of the reconciler, and the reconciler's card will be eliminated.

TARGET IMPLEMENTATION DATE: Completed.

UPDATED MANAGEMENT RESPONSE: The reconciler and the cardholder being the same person was an acceptable practice for the City. However, Fleet has now changed the process by eliminating the card from the reconciler. A supervisor will purchase office and administrative items, which was previously done by the reconciler holding the card.