
CITY OF SAN ANTONIO

OFFICE OF THE CITY AUDITOR



Audit of Aviation Department

Fleet Operations

Project No. AU18-001

September 20, 2018

Kevin W. Barthold, CPA, CIA, CISA
City Auditor

Executive Summary

As part of our annual Audit Plan approved by City Council, we conducted an audit of the Aviation Department, specifically Fleet Operations. The audit objective, conclusions, and recommendations follow:

Determine if the Aviation fleet management center is operating and managed effectively and efficiently and that performance measures are supported and appropriate.

The Aviation fleet management center is operating and managed effectively and efficiently to ensure that equipment is available for servicing the airport. We determined that Aviation is performing preventative maintenance in a timely and effective manner. We also determined adequate physical access controls are in place to safeguard the parts warehouse.

However, there are opportunities to strengthen the controls associated with the inventory and tracking of parts in the warehouse. The Aviation Director should implement controls and document procedures to ensure inventory in the parts warehouse is appropriately issued and accurately maintained in the FASTER system. Also, obsolete inventory should be properly disposed and written off.

Aviation Department Management agreed with the audit recommendations and has developed positive action plans to address them. Management's verbatim response is in Appendix B on page 6.

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Background

The Aviation fleet management center is responsible for maintaining Aviation vehicles and equipment. This includes the acquisition, maintenance, and disposition of fleet assets and maintaining an inventory of parts in the Aviation warehouse.

The fleet management center utilizes the FASTER fleet management system to record and track vehicle and equipment repairs and maintenance, as well as manage and monitor fleet assets and parts inventory. Also, various ad-hoc, custom, and management reports for daily operations and dashboard purposes are available through FASTER.

When vehicles and equipment are purchased by one of the Aviation divisions, the Building and Equipment Services Department (BESD) issues them in FASTER when they are received. For each fleet asset, a 15-point replacement program is populated in FASTER to determine when a vehicle should be replaced. The program uses formulas to calculate “points” based on measures such as vehicle cost, maintenance and repairs, mileage and/or hours used, and condition of vehicle. Additionally, BESD enters a maintenance schedule into FASTER for each fleet asset. Aviation fleet management uses this schedule to perform required maintenance throughout the life of the fleet asset. Some maintenance schedules are adjusted to account for high idle periods. Aviation currently performs maintenance for 157 wheeled vehicles and 133 pieces of equipment (weed eaters, paint striper, etc.).

Day-to-day parts inventory is managed by an Aviation stock clerk and management analyst. Their responsibilities include ordering parts from vendors, receiving parts into FASTER inventory, issuing parts to mechanics, charging parts to work orders, and performing a quarterly physical inventory. The fleet management center maintains an inventory of frequently used parts, while remaining parts are ordered as needed through various vendor contracts.

Audit Scope and Methodology

The audit scope included preventative maintenance scheduling, inventory management, purchasing processes, training requirements, physical security, and FASTER system user access. Our audit period was October 2017 through May 2018.

Our methodology included conducting interviews and walkthroughs with key Aviation personnel to gain an understanding of the operations of the fleet management center and to establish criteria for our test work.

As part of our testing procedures we examined controls for ensuring that maintenance on vehicles and equipment is performed on a timely basis and properly tracked. We also inspected the physical security of the fleet center and management of parts inventory. Furthermore, we tested parts purchasing process controls for adequate segregation of duties, parts pricing, and use of purchasing cards (P-Card). In addition, we reviewed qualifications and training requirements for Aviation mechanics to perform maintenance, repairs and inspections on equipment.

We relied on system generated reports from the FASTER system which stores work order and parts inventory data. We performed limited procedures to test general controls of the FASTER system, specifically user access.

We also relied on computer-processed data in SAePS and SAP, the City's purchasing system and accounting system respectively, to validate purchase orders and invoices. Our reliance was based on performing direct tests on the data rather than evaluating the system's general and application controls. We do not believe that the absence of testing general and application controls had an effect on the results of our audit.

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.

Audit Results and Recommendations

A. Inventory of Parts

Aviation does not have adequate controls in place to ensure inventory in the parts warehouse is accurately reflected in FASTER.

During our testing of parts inventory, we noted that for two out of ten parts in our sample, the quantities on the shelf did not match the quantities in the FASTER inventory. Additionally, we reviewed the results from the most recent quarterly manual inventory count performed by the Stock Clerk and determined the discrepancies found during the count had not been adjusted in the FASTER inventory. Furthermore, we determined that the quarterly inventory counts excluded some parts in the warehouse for unknown reasons.

We reviewed logs of issued parts from the warehouse for a sample of six random days and determined three days had one or more of the following exceptions:

- Parts issued from the warehouse were not issued to a specific work order – understating parts charged to the work order and creating an environment susceptible to fraud and abuse.
- Parts on the log didn't have the part number included. For parts such as oil filters for which there are many different types and models, not recording the exact part number could lead to the wrong part being issued in FASTER which can cause inaccurate inventory records.
- Parts on the log were crossed out without a written explanation.

We also reviewed a random sample of 25 purchase orders for parts and identified two purchases for which no work order was created in FASTER. We also identified a purchase that did have the work order created however the technician didn't issue the parts to the work order at the time of completing the maintenance.

Finally, Aviation management indicated that the parts warehouse includes obsolete inventory which takes up valuable space and is required to be inventoried. Best practices require obsolete inventory to be identified, managed, written off, and disposed of on an ongoing basis to preclude a costly buildup of such items.

An accurate inventory reduces the risk of loss or theft and provides the necessary information for Aviation to manage its parts stock to facilitate preventative maintenance needs.

Recommendation:

The Aviation Director should implement controls and document procedures to ensure inventory in the parts warehouse is appropriately issued and accurately

maintained in the FASTER system. Also, obsolete inventory should be properly disposed and written off.

Appendix A – Staff Acknowledgement

Mark Bigler, CPA-Utah, CISA, CFE, Audit Manager
Holly Williams, CISA, CRISC, Auditor in Charge
Doug Francis, Auditor

Appendix B – Management Response



CITY OF SAN ANTONIO

P.O. Box 838868
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September 11, 2018

Kevin W. Barthold, CPA, CIA, CISA
City Auditor
San Antonio, Texas

RE: Management's Corrective Action Plan for the Audit of Aviation Fleet Operations

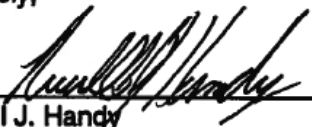
Department of Aviation has reviewed the audit report and has developed the Corrective Action Plans below corresponding to report recommendations.

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
1	Inventory of Parts The Aviation Director should implement controls and document procedures to ensure inventory in the parts warehouse is appropriately issued and accurately maintained in the FASTER system. Also, obsolete inventory should be properly disposed and written off.	3	Accept	Randy Gray Facilities Manager	December 2018

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
	Action plan: Facility Maintenance and Fleet staffs have completed flow charts and established controls and procedures for ordering, receiving, issuing, and tracking parts in the FASTER system. When a part is requested from the warehouse, and before issuing the part to fleet maintenance, the stock clerk will enter the part into FASTER, correlating the part's issuance to a specific work order. Before the work order can be closed, the Fleet supervisor will review and verify the part was installed. Warehouse and Fleet staffs have completed their identification and documentation of obsolete parts. Parts have been consolidated and set aside to be disposed of and written off consistent with AD 8.7, Financial Management of Capital Assets and Tracked Property. All obsolete parts will be disposed by the end of calendar year 2018. Moving forward in an effort to avoid any accumulation of parts which have been determined obsolete, staff will annually assess their inventory and dispose of obsolete parts in a timely manner.				

We are committed to addressing the recommendations in the audit report and the plan of actions presented above.

Sincerely,


 Russell J. Handy
 Director
 Aviation Department

9/13/18
 Date


 Carlos Contreras
 Assistant City Manager
 City Manager's Office

12/13/18
 Date