



April 23, 2009

MEGAN J. BRENNAN
VICE PRESIDENT, EASTERN AREA OPERATIONS

SUBJECT: Audit Report – Vehicle Maintenance Facilities –
Scheduled Maintenance Service in the Eastern Area
(Report Number DR-AR-09-005)

This report presents the results of our self-initiated audit of Vehicle Maintenance Facilities (VMF) – Scheduled Maintenance Service in the Eastern Area (Project Number 08XG011DR000). The overall objectives were to assess whether the Eastern Area accomplished all required scheduled maintenance and whether they integrated both VMFs and local commercial resources for optimum efficiency. See [Appendix A](#) for additional information about this audit.

Conclusion

The Eastern Area completed nearly all the required scheduled preventive maintenance (SPM)¹ during fiscal year (FY) 2007 on their delivery vehicles. However, Eastern Area management could further optimize VMF efficiency through more effective use of VMF and local commercial resources, thereby saving an estimated \$10.9 million over 10 years.

Scheduled Maintenance Performance

Eastern Area VMF units and local commercial vendors (LCVs) completed an average of 96 percent of all SPMs during FY 2007. Two of the units completed 99 percent of their SPMs, while the remaining five VMF units completed between 92 and 98 percent of the required SPMs. Management did not always track and monitor missing or past due SPMs performed by local vendors. They attributed the differences between SPMs required and performed to vehicle post office (VPO) officials not providing documentation verifying that local vendors had performed required SPMs for vehicles.

Without completing all required scheduled maintenance and repairs, some Postal Service vehicles are vulnerable to breakdowns, which could adversely impact timely mail delivery and potentially impact the well-being of employees and the public. Since the Postal Service does not plan to replace its current fleet of long life vehicles (vehicles that are more than 20 years old) until 2018, we believe it is critical that these vehicles timely receive SPMs. See [Appendix B](#) for additional information about this issue.

¹ A SPM usually includes a preventive maintenance inspection and any repairs needed to maintain the vehicle or meet safety and reliability standards.

We recommend the Vice President, Eastern Area Operations, direct district managers to:

1. Require vehicle maintenance facility officials to immediately conduct all maintenance in arrears and properly record vehicle status if maintenance was not conducted.
2. Monitor and track key maintenance activities to ensure timely completion of all required scheduled maintenance and repairs.
3. Require vehicle post office officials to timely submit documentation to vehicle maintenance facilities to verify completion of scheduled maintenance by local vendors.

Optimum Use of Resources

The Eastern Area did not always optimize its resources to ensure management spent maintenance and repair funds in the most efficient and cost effective manner. Specifically, VMF officials often used LCVs for vehicle maintenance and repairs when using VMF resources would have been more efficient and economical. Likewise, VMF officials often used VMF resources when it would have been more efficient and economical to use LCVs. Additionally, VMF officials used maintenance employees to shuttle vehicles between facilities for maintenance and repairs when more economical means existed. Since we started this review, Eastern Area officials began corrective action by directing the VMF manager to review the use the National Shuttling contract. See [Appendix C](#) for additional information on the optimum use of resources.

The following factors contributed to these conditions. Although VMF units had a vehicle maintenance plan, the plan did not fully consider:

- The optimal combination of VMF resources and LCVs for performing scheduled maintenance and repairs.
- The cost effectiveness of using LCVs instead of VMF resources to shuttle vehicles between facilities for maintenance and repairs.

As a result, the Eastern Area expended more resources than necessary to complete vehicle maintenance and repairs. By optimizing its resources, the Eastern Area could reduce operating costs by about \$305,147 annually, or approximately \$10.9 million projected over 10 years. See [Appendix D](#) for our detailed analysis of the monetary impact.

We recommend the Vice President, Eastern Area Operations, direct district managers to:

4. Work with vehicle maintenance facility officials to:

- Maintain the most efficient combination of vehicle maintenance facility and commercial resources based on geographical location and costs.
- Make optimal use of the Postal Service's national vehicle shuttle agreement or other local commercial shuttle services, when cost-effective, for transporting vehicles to and from maintenance facilities.

Management's Comments

Management agreed with our findings and recommendations. The Eastern Area agreed that opportunities exist to improve vehicle reliability by completing all scheduled maintenance and to improve efficiencies in Vehicle Maintenance Service by ensuring timely submission of data and monitoring performance indicators. Management will continue to track all SPMs or Preventive Maintenance Inspections (PMIs) in arrears in Vehicle Management Accounting System (VMAS), verify them monthly, and hold bi-weekly teleconferences to discuss VMF performance. In addition, management agreed that monitoring and tracking key vehicle maintenance activities will promote the desired effect of maintaining vehicles in optimal condition and preserving Postal Service assets. Management stated they would continue tracking performance indicators and distribute VMF performance indicator reports to District Managers and Area Executives each month starting in April 2009.

Further, the response indicated that Eastern Area officials understand the importance of accurate and complete records of activities and costs associated with vehicle maintenance to development of processes to improve efficiencies. Eastern Area officials stated they would send out a directive to review accounting practices guidelines for use of the Voyager Fleet Management credit card. In addition, the Eastern Area agreed the VMFs need to determine the best use of postal vehicle maintenance technicians and quality contractor services to maintain the vehicle fleet in optimal conditions. Management advised the Eastern Area VMF managers to contact the shuttle contract vendor to determine the most cost-effective means of shuttling vehicles into the VMF for service. District and VMF Managers will review maintenance technicians and quality contractor services to maintain the vehicle fleet in optimal condition.

Finally, Eastern Area management did not agree with the projected savings over 10 years because they asserted that the Postal Service business model does not remain constant for 10 years. In addition, Eastern Area officials indicated that since the U.S. Postal Service Office of Inspector General (OIG) used 2 years prior, the same 2-year principle should apply in projecting forward. Additionally, without having the full details on the data from which the projections were derived, they said they cannot adequately present a

specific monetary amount that is amenable to the Eastern Area. The Eastern Area stated that, instead, they would like the OIG to consider a straight-line of 20 percent of the 10-year projected savings. We have included management's comments, in their entirety, in [Appendix G](#).

Evaluation of Management's Comments

We consider management's comments responsive to the findings and recommendations and management's corrective actions should resolve the issues identified in the report. In regards to management's disagreement with our estimated monetary impact of \$11.4 million over the next 10 years, in subsequent discussions, management stated they were concerned with a 10-year projection because of the economic conditions and instability of the Postal Service. Additionally, management stated that, due to the many potential changes that could affect vehicle usage over the next 10 years, they disagreed with the monetary impact for the Eastern Area, but would agree to a 2-year impact of \$2,179,620.

We used 10 years to project savings per OIG policy, which states "generally, any recommendation which will result in a perpetual cost avoidance or perpetual revenue increase justifies a discounted cash flow calculation. Generally, a 10-year cash flow analysis is reasonable. However, depending on the lifecycle for specific programs, a cash flow analysis for a longer or shorter period may apply." Therefore, we determined it appropriate to use 10 years due to the Postal Service's decision to maintain delivery vehicles beyond the 24-year useful life, until 2018 – approximately 10 years from now. The OIG's Optimization Model provides a plan to improve the use of internal and external resources to reduce costs and optimize efficiencies during this period of extended maintenance and repair. The OIG believes the model used to calculate savings provided a reasonable estimate of costs the Eastern Area could save by optimizing VMFs and LCVs.

We held a detailed discussion on April 2, 2009, to further explain to Eastern Area management how we used the model to calculate the estimated savings. During this meeting, the Eastern Area requested the opportunity to provide additional information for the Washington VMF because the maintenance and overtime hours used in the cost savings calculations did not reflect their actual performance. The additional information reduced the potential cost savings from \$11,465,254 to \$10,898,100. We provided Eastern Area management with revised detailed hard copy model data for examination on April 8, 2009. Since Eastern Area management agreed that opportunity exists to improve efficiency and plans are underway to better use VMF and LCV resources, we believe the estimated savings are applicable and properly classified as monetary impact.

We will report \$10,898,100 of funds put to better use in our *Semiannual Report to Congress*. The OIG considers recommendation 4 significant and, therefore, it requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when management completes corrective actions. This recommendation should not be

closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation the recommendation can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Rita Oliver, Director, Delivery, or me at (703) 248-2100.

E-Signed by Robert Batta 
VERIFY authenticity with ApproveIt


Robert J. Batta
Deputy Assistant Inspector General
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Attachments

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APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Postal Service invested more than \$3 billion in vehicle assets to transport and deliver the mail. The vehicle inventory in FY 2007 consisted of 219,522 delivery, transport, and administrative vehicles. Delivery and collection vehicles account for 195,211 (or about 89 percent) of the total fleet.² (See Figure 1.) The Postal Service acquired the majority of these vehicles between 1987 and 1994 and planned to maintain them for 24 years. About 7,700 of these vehicles purchased in 1987 are approaching the end of their useful life. However, the Postal Service recently stated that capital constraints now dictate that many of these vehicles must stay in service until 2018 – 7 years more than the planned lifespan.

Figure 1
Delivery and Collection Vehicles in VMFs for SPM



Source: Postal Service

Management established 190 main and 131 auxiliary VMFs to maintain these assets in a technically reliable, safe, clean, and neat condition for efficient mail transportation. Vehicle maintenance includes selecting and training maintenance technicians; providing garages, tools, and equipment; performing repairs; and monitoring and maintaining preventive maintenance standards. The geographic location of VMFs and auxiliary VMFs varies in each area as needed to support vehicle maintenance and reduce transportation costs. Management established auxiliary VMFs for situations where vehicle maintenance requirements exceed VMF resources or where shuttle time or geographical distances warrant use of an auxiliary VMF.

Area officials are responsible for validating staffing requirements for vehicle related positions and ensuring an adequate scheduled maintenance program. Vehicle maintenance managers have an overall responsibility for oversight of all maintenance and repair services performed at VMF units, as well as any work contracted to commercial vendors. Although the VMF manager has overall responsibility for vehicle maintenance, vehicles are usually assigned to VPOs. VPOs can be post offices, branches, stations,

² The scope of our audit was FY 2007. In FY 2008 the vehicle inventory increased to 221,047 and 197,898 (approximately 90 percent) are delivery vehicles.

associated offices, or other delivery and support facilities. Officials at VPOs can also contract with LCVs for maintenance and repair services, but they are required to document the repairs and obtain the VMF manager’s approval for repairs and services costing more than \$250.

The Postal Service developed Handbook PO-701, *Fleet Management*, to assist operating personnel in maintaining the vehicle fleet in the most economical manner possible. The handbook requires a maintenance plan that provides for regular examination and service of Postal Service-owned vehicles. VMF managers must prepare a vehicle maintenance plan designating where and when each vehicle will receive scheduled maintenance. The handbook also emphasizes that preventive or scheduled maintenance is preferable to reactive or unscheduled maintenance. See [Appendix F](#), "Scheduled Maintenance Process," for a flowchart.

The Postal Service also established a Model VMF Performance Review program. The review program is an integral part of VMF operations and a key tool for determining the efficiency of a unit at a given time and identifying areas that need corrective action. Districts must ensure VMFs perform self-reviews quarterly. A VMF must achieve a score of 85 or more to be certified. The area must certify or recertify each unit at least every 3 years.

The Postal Service uses the VMAS to code and track costs. VMAS is a computer-based support system designed to collect, process, store, present, and communicate vehicle maintenance data. The table below shows VMF expenses, including commercial vendors’ expenses, for FY 2007.

Table 1. Maintenance Expenditures for FY 2007 by Area

Postal Service Area of Operation	VMF and Commercial Expenditures		
	Commercial Vendor Expenses in FY 2007	VMF Expenses in FY 2007	Total Expenses in FY 2007
Southeast	\$13,867,484	\$52,648,111	\$66,515,595
Great Lakes	15,152,866	46,536,525	61,689,391
Eastern	12,213,149	45,085,152	57,298,301
Western	10,382,055	45,808,493	56,190,548
Pacific	9,105,547	42,819,217	51,924,764
Northeast	10,821,346	37,860,317	48,681,663
New York Metro	12,433,942	36,814,803	49,248,745
Southwest	7,194,386	36,503,347	43,697,733
Capital Metro	7,643,667	32,808,458	40,452,125
Total	\$98,814,442	\$376,884,423	\$475,698,865

Source: Postal Service Category Management Center

OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of this audit were to assess whether the Eastern Area accomplished all required scheduled maintenance and whether they integrated both VMFs and local commercial resources for optimum efficiency.

To accomplish the objectives, we randomly selected and reviewed vehicle service files from seven³ of the 25 VMFs in the Eastern Area. We documented the scheduled maintenance, the amount of SPM required, and whether they were conducted in a timely manner, and reviewed work order files to document whether the SPM performed were considered actual SPM, based on the time required for maintenance. We reviewed the Web-Enabled Enterprise Information System (WebEIS) to analyze vehicles in “maintenance in arrears” status and compared the number of SPMs completed to actual maintenance records. We also obtained data from Web Complement Information System on the number of vehicle maintenance technicians and other data from the Enterprise Data Warehouse (EDW) System.

We obtained a random sample of seven of the Eastern Area’s VMFs from all districts and reviewed FY 2007 VMAS data for scheduled maintenance services for the selected VMFs. See [Appendix E](#) for more information. We identified the number of PMI⁴ to be performed at each auxiliary VMF, the VPOs where the vehicles were located, and the VPOs’ distance from the VMFs, and documented the number of vehicle maintenance technicians assigned to each VMF.

We identified expenditures for each VMF and LCV scheduled maintenance. In discussions with VMF managers and reviews of maintenance records, we documented the amount of SPM and number of SPM inspections required for each location on a yearly basis. Using the VMAS vehicle work order history, we analyzed the average time to perform a SPM for the seven VMF units reviewed in our sample.

We developed an optimization model that used the above operational data to establish baseline standards, key characteristics, shuttle usage, and cost. Using this data, we established an optimum operating efficiency for each VMF. Based on the above analyses, assumptions, and constraints, we estimated the Eastern Area could increase overall VMF efficiency and we projected the cost savings for the Eastern Area’s universe of 25 VMFs. See [Appendix D](#), “Calculation of Cost Savings,” for the model and assumptions we used to compute monetary benefits.

We conducted this performance audit from November 2007 through April 2009 in accordance with generally accepted government auditing standards and included such

³ The random sample was reduced from 10 to seven by excluding the Bellmawr, Pittsburgh and Toledo VMFs. We did this because it was difficult to verify their SPMs due to discrepancies in vehicle inventory.

⁴ A PMI is that portion of required scheduled maintenance a vehicle must receive to determine if mechanical and safety systems are functioning properly.

tests of internal controls as we considered necessary under the circumstances. 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. We relied on data from VMAS and WebEIS. We did not audit these systems, but performed a limited review of data integrity to support our reliance on the data. We discussed our observations and conclusions with management officials on February 25, 2009, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

The OIG has issued 10 reports related to our objectives in the last several years.

Report Title	Report Number	Final Report Date	Report Results
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Capital Metro Area</i>	DR-AR-09-003	January 27, 2009	\$17,951,396
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Northeast Area</i>	DR-AR-09-001	December 9, 2008	\$14,817,650
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the New York Metro Area</i>	DR-AR-08-011	September 30, 2008	\$25,287,093
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Pacific Area</i>	DR-AR-08-010	September 30, 2008	\$21,580,236
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Great Lakes Area</i>	DR-AR-08-009	September 29, 2008	\$28,224,843
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Western Area</i>	DR-AR-08-008	September 29, 2008	\$14,251,384
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Southeast Area</i>	DR-AR-08-007	September 16, 2008	\$27,620,773

Report Title	Report Number	Final Report Date	Report Results
<i>Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Southwest Area</i>	DR-AR-08-006	August 14, 2008	\$34,522,159
<i>Maintenance and Repair Payments to Commercial Vendors Using Postal Service Form 8230, Authorization for Payment</i>	DR-MA-07-005	September 21, 2007	\$ 1,571,517
<i>Management of Delivery Vehicle Utilization</i>	DR-AR-06-005	June 14, 2006	\$22,796,487

The results of the audits finalized in FYs 2008 and 2009 were similar to those for the Eastern Area. VMF managers did not complete SPM on all vehicles and did not always integrate both VMF and LCV resources for optimum efficiency. Management agreed with our findings and recommendations and generally agreed with the monetary impact on our prior reports.

The FY 2007 audit concluded that using Postal Service (PS) Form 8230, Authorization for Payment, to pay commercial vendors for maintenance and repair services was not cost effective and did not include controls to reconcile payments and ensure repair costs were reasonable. Management agreed with our findings, recommendations, and monetary impact.

The FY 2006 audit concluded that Postal Service officials made significant strides in reducing costs associated with delivery vehicle expenditures over the previous 3 years. However, delivery management officials could further improve the use of vehicles that support delivery operations. Management agreed with our findings, recommendations, and monetary impact.

APPENDIX B: SCHEDULED MAINTENANCE PERFORMANCE

The Eastern Area completed an average of 96 percent of all SPMs during FY 2007. Two of the units completed 99 percent of their SPMs, while the remaining five VMF units completed between 92 and 98 percent of the required SPMs. See Table 2.

Table 2. Scheduled Preventive Maintenance Performed in FY 2007

VMF Location	Required in FY 2007	Performed	Percentage Performed
Charleston	987	950	96%
Clarksburg	340	334	98%
Evansville	1,004	924	92%
Harrisburg	3,045	2,855	94%
Roanoke	1,124	1,116	99%
Southeastern	2,204	2,077	94%
Washington	653	645	99%
Total/Average	9,357	8,901	96%

Source: VMAS and OIG optimization model

Reporting and Tracking Maintenance Activities. Management did not always track and monitor missing or past due SPMs performed by local vendors. They attributed the differences between SPMs required and performed to VPO officials not providing documentation to verify that the local vendors had performed required SPMs for vehicles. While Postal Service policy does not consider SPMs performed within 2 weeks of the due date late, these SPMs were not recorded in VMAS as vehicles in arrears. Further, even though we determined our sample VMFs performed the majority of their SPMs, the process of verifying scheduled maintenance performed proved difficult.⁵ This was in part because of multiple vehicle transfers, and the way SPMs are tracked for VMFs nationwide. Specifically, the maintenance process tracks the status of vehicles in arrears⁶ rather than number of SPMs performed.

Without completing all required scheduled maintenance and repairs, some of the Postal Service vehicles are vulnerable to breakdowns, which may create mail delays and service problems. Further, by performing the required SPMs, the number of vehicle accidents could decrease, thereby lowering costs and increasing the well-being of employees and the public. Since the Postal Service does not plan to begin replacing its current fleet of long life vehicles (vehicles that are more than 20 years old) until 2018, we believe it is critical that these vehicles receive the required maintenance.

⁵ The issue of more easily reporting and tracking SPM requires action by Postal Service Headquarters and will be addressed in a national capping report.

⁶ The “vehicles in arrears” status is a VMF performance measure.

APPENDIX C: OPTIMUM USE OF RESOURCES

The Eastern Area did not always optimize its resources to ensure that maintenance and repair funds were expended in the most efficient and cost effective manner. Specifically, maintenance officials sometimes used LCVs for vehicle maintenance and repairs when using VMF resources would have been more efficient and economical. Likewise, management sometimes used VMF resources when it would have been more efficient and economical to use LCVs. Additionally, VMF officials used maintenance employees to shuttle vehicles from the VPO to the VMF when more economical means existed.

Several factors contributed to these conditions.

- o Optimum Use of VMF and Local Commercial Resources. The vehicle maintenance plan did not consider an optimum combination of both VMF and commercial resources.⁷ Generally, it is more cost effective⁸ for the VMF to perform SPMs on vehicles stationed within 50 miles of the VPO. However, we concluded a local commercial vendor should perform SPMs on vehicles when the VPO is more than 50 miles from the nearest VMF. We determined that 1,227 SPMs should have been performed at the other site – either the VMF or the commercial facility. . See Table 3.

Table 3. VMF and Local Commercial Vendor Resources

VMF Location	FY 2007 SPMs Performed by		Total SPMs Performed	Sites SPMs Were Performed		Total SPMs That Could Have Been More Optimally Performed by Either VMF or Local Vendors
	VMF	Local Vendors		VMF	Local Vendors	
Charleston	944	6	950	0	0	0
Clarksburg	151	183	334	46	36	82
Evansville	832	92	924	104	13	117
Harrisburg	2,355	500	2,855	159	63	222
Roanoke	664	452	1,116	153	66	219
Southeastern	1,506	571	2,077	520	40	560
Washington	559	86	645	10	17	27
Total	7,011	1,890	8,901	992	235	1,227

Source: VMAS data and OIG optimization model

- o Vehicle Shuttling. In most cases, we found the Postal Service's national vehicle shuttle agreement or local commercial shuttling services were more cost effective than using VMF maintenance technicians. The Eastern Area used about 7,260⁹ workhours for vehicle maintenance technicians to shuttle vehicles rather than

⁷ VMAS does not track the number of SPMs accomplished. The OIG's efficiency and optimization model estimated the number completed by analyzing all work orders assigned to code 22 (scheduled maintenance) and, with some adjustment, considered all work of at least 2 hours as a SPM.

⁸ We base cost effectiveness on the overhead costs to transport vehicles between the VMF and the VPO using vehicle maintenance technicians or other VMF personnel.

⁹ This number increased from 6,943 to 7,260 because the addition of 317 shuttling hours used by the Washington VMF.

perform maintenance. The shuttle workhours related to SPMs were equivalent to approximately four vehicle maintenance technician positions at a cost of \$312,462.¹⁰ During our review, Eastern Area officials began corrective action by directing VMF managers to review the use the National Shuttling contract. See Table 4.

Table 4. Vehicle Maintenance Technician Hours Used for Shuttling¹¹

VMF Location	Number of Vehicle Maintenance Technicians Assigned	Estimated Scheduled Maintenance Hours Available	Total Shuttle Hours Used in FY 2007	Percentage of Direct Maintenance Hours Used for Shuttling	Shuttle Hours Used for Scheduled Maintenance	Equivalent Maintenance Technician Positions	Cost of Shuttle Hours Used by Maintenance Technicians
Charleston	11	15,435	1,373	8.9	587	0.33	\$25,264
Clarksburg	5	7,016	1,128	16.1	873	0.50	37,574
Evansville	8	11,226	1,866	16.6	5	0.00	215
Harrisburg	23	32,274	3,018	9.4	2,637	1.50	113,496
Roanoke	10	14,032	3,761	26.8	1,144	0.65	49,238
Southeastern	16	22,451	2,084	9.3	1,695	0.97	72,944
Washington	4	5,613	371	6.6	319	0.18	13,730
Totals/Percent	77	108,046	13,602	13.0	7,260	4.14	\$312,462

Source: VMAS and OIG optimization model

We found the Eastern Area VMF Managers and the Vehicle Management Program Analyst to be proactive in managing vehicle maintenance and receptive to the intent of our audit and recommendations. Management officials did express concern that:

- VMFs may not always find cost effective shuttle alternatives.
- The quality of maintenance LCVs perform is often not at the same level as the VMFs.
- There were insufficient resources, staff, and time to monitor LCVs' work.
- Additional maintenance workhours were used to repair extensive rust and corrosion damage to an aging fleet due to the winter weather conditions in the Eastern Area.

The OIG acknowledges these issues and concerns and the challenges the Postal Service faces regarding VMF operations. Notwithstanding these concerns and challenges, in our opinion, opportunities exist to become more efficient and save money. Specifically, the Eastern Area could lower overall VMF operating costs by an average of \$305,147 annually. These efficiencies, when projected for the 25 VMFs in the Eastern Area, could

¹⁰ This estimate of equivalent technician positions applies only to the hours used for shuttling. It does not relate to any actual reductions in this report.

¹¹ Differences in totals are due to rounding of numbers calculated by the OIG's optimization model.

save an estimated \$10.9 million over a 10-year period. See [Appendix D](#) for more information.

APPENDIX D: OIG CALCULATION OF COST SAVINGS

The OIG identified \$10,898,100 in funds put to better use over the next 10 years for the Eastern Area’s 25 VMFs.¹²

Table 5. Savings in Dollars

VMF Location	Average Annual Savings	Estimated Savings Over 10 Years
Charleston	\$12,598	\$125,980
Clarksburg	34,822	348,220
Evansville	48,665	486,650
Harrisburg	6,584	65,840
Roanoke	72,789	727,890
Southeastern	42,786	427,860
Washington	86,903	869,030
Totals	\$305,147	\$3,051,470
Projected Potential Savings Over 25 VMFs in the Eastern Area		\$10,898,100

Source: OIG optimization model

We calculated the savings based on the following methodology and assumptions.

- Each VMF has a list of VPOs for which it is responsible for vehicle maintenance. Each VPO has a number of Postal Service vehicles that require regular SPM. Management determines the amount of SPM a vehicle requires at the beginning of the year based on the demands the assigned route places on the vehicle. All SPM for a given year must be performed on each vehicle; however, the VMF may delegate some of this workload to commercial vendors that are near the VPOs. We refer to this contract labor as LCVs.
- The purpose of this audit was to determine the optimal use of the SPMs to be performed by the VMFs and LCVs. We took into consideration the mechanics’ labor costs and all relevant shuttling costs. As with the SPMs, VMFs may contract out shuttling. The Postal Service has a national vehicle shuttle agreement and the OIG used that rate in the analysis. However, VMFs can use a less expensive local shuttle contractor if one can be identified.

¹² At a 95 percent confidence level, the OIG estimates the 10-year savings amount to range between \$5.1 and \$16.7 million. We used the midpoint estimate of \$10.9 million in our statistical projection.

- We developed the optimization model to find a least-cost solution based on performing all required SPMs. We used the VMFs' FY 2007 operational data. Any SPMs not performed by VMFs were considered completed by LCVs.¹³ We restricted the scope of this audit to maintenance technicians' time spent performing scheduled maintenance and shuttling activities. This analysis draws no conclusions regarding the time dedicated to other activities or how maintenance technicians used the remainder of their time.
- We optimized the VMFs' scheduled maintenance and shuttling time for the next 10 years, assuming the Postal Service would reduce the labor contingent by 4.5 percent per year, the historical Eastern Area attrition rate.¹⁴ This optimization gives the least-cost solution and specifies how the SPMs at each VPO should be distributed between the VMFs and the LCVs. The model shows which shuttling jobs should be performed by both the VMFs and the contractors. The model analyzes all costs and hours (for SPMs at VMFs, SPMs at LCVs, VMF shuttling, and contract shuttling). The model also compares total SPMs currently performed by the VMFs and local vendors to the total amount that VMFs or LCVs could more optimally perform.
- In these optimizations, we assumed that each VMF would operate at a standard efficiency. We used the sampled seven VMFs' average time per SPM as a standard for the time it takes to complete a SPM in that area. If a particular VMF performed better than this standard, we assumed the VMF maintained its current efficiency.
- VMAS does not track the number of SPMs accomplished for each vehicle. The OIG's efficiency and optimization model estimated the number of SPMs completed by analyzing all work orders assigned to code 22 (scheduled maintenance) and with adjustments (i.e., new vehicles and commercial repairs) considered all work lasting at least 2 hours¹⁵ as a SPM. We explained the process to the VMF manager and then confirmed/adjusted the number of SPMs required and completed.
- We identified cost savings if the VMF was not efficiently using its shuttling time. We compared the VMFs' total shuttling time to the aggregate time that should be needed to perform all of the VMFs' shuttling, assuming that two vehicles were transported on each trip. The cost of any excess time was time that could have

¹³ We obtained the current number of SPMs performed by VMFs and LCVs from VMAS databases located at the VMFs and transmitted to the [REDACTED] Information Technology and Accounting Service Center. Because a VMF may not perform all its required SPMs, we assumed LCVs would perform the remaining SPMs. In addition, in some cases, a VMF performed more SPMs than required at a VPO. We credited the VMFs with these additional SPMs and determined a comparable solution by reassigning these SPMs to the closest location with a shortfall. We accomplished this, in part, by assuming that the baseline case kept the scheduled maintenance hours and shuttling hours constant at current levels.

¹⁴ The historical attrition rate for Eastern Area maintenance technicians was determined by averaging the past 7 years' (2001-2007) worth of data obtained from the WebEIS.

¹⁵ We used 2 hours because of the Postal Service's requirement for a "Type A" and "Type B" maintenance inspection prior to any repair work. These inspections require between 1.5 and 2.5 hours.

been saved, although the actual amount of time that could be saved was likely to be higher because the VMFs probably did not perform all of their own shuttling.

- For our model, we reviewed the minimum and maximum overtime hours per week from what the VMFs used during the first 6 months of FY 2008 determined from the EDW system. The number of hours of straight time each mechanic worked per year is 1,754.¹⁶
- Based on the above analyses and projections, we estimated the Eastern Area could reduce costs by using local commercial resources for shuttling and SPM when appropriate. We projected over the Eastern Area's universe of 25 VMFs, a reduction of costs by approximately \$305,147 annually, or about \$10.9 million over a 10-year period.

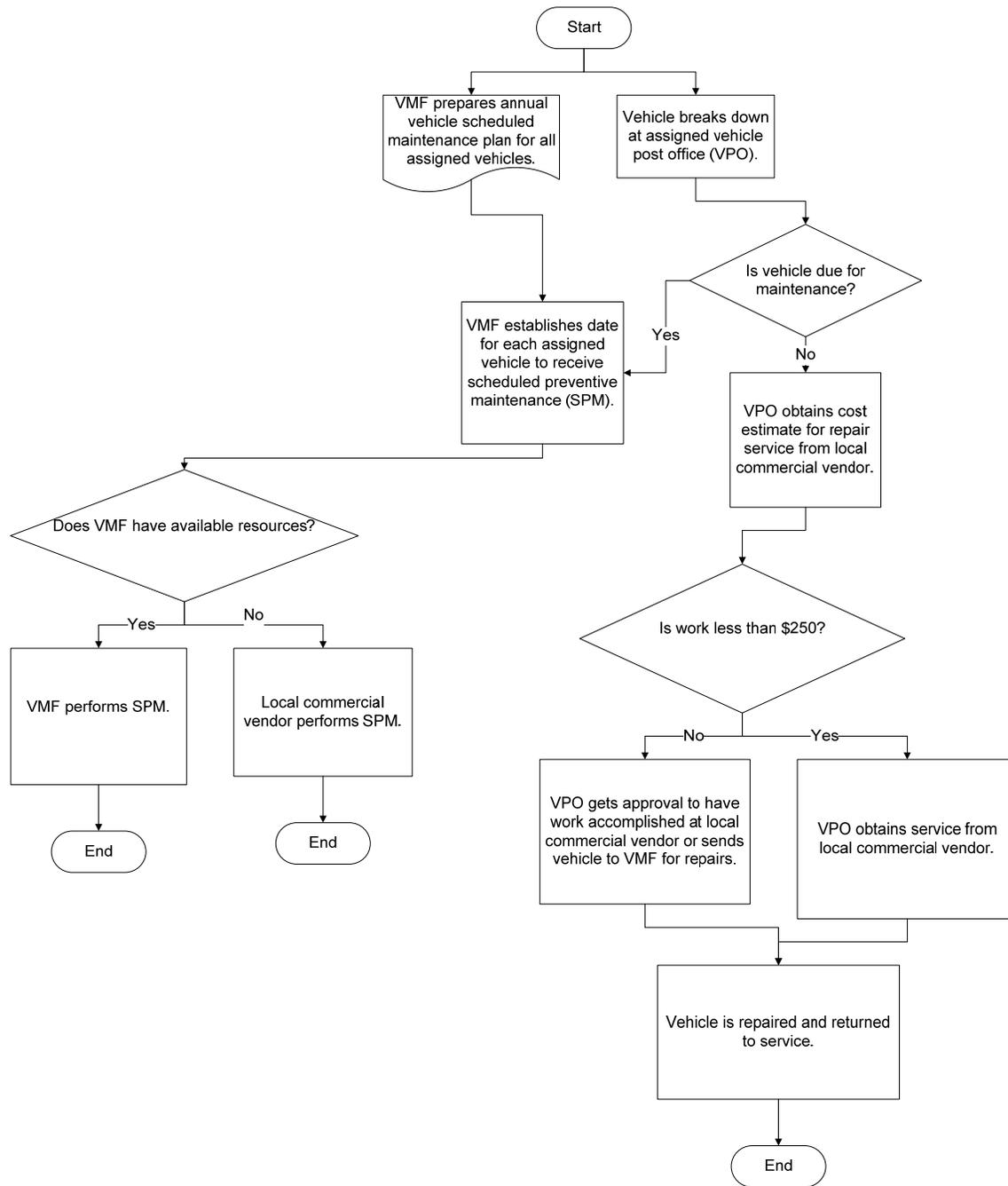
¹⁶ Source: Finance Memorandum dated March 6, 2006, "Workhour Rates" for Fiscal Years 2005-2007."

**APPENDIX E: SELECTED DISTRICTS AND
VEHICLE MAINTENANCE FACILITIES**

District	VMF
Appalachian	Charleston
	Clarksburg
	Roanoke
Central Pennsylvania	Harrisburg
Cincinnati	Toledo
Kentuckiana	Evansville
Philadelphia Metro	Southeastern
Pittsburgh	Pittsburgh
	Washington
South Jersey	Bellmawr

Source: OIG Experts Sample

APPENDIX F: SCHEDULED MAINTENANCE PROCESS¹⁷



¹⁷ Source: Postal Service Handbook PO-701, *Fleet Management*, March 1991.

APPENDIX G: MANAGEMENT'S COMMENTS

MEGAN J. BRENNAN
VICE PRESIDENT, AREA OPERATIONS
EASTERN AREA



March 31, 2009

LUCINE WILLIS
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report – Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Eastern Area (Report Number DR-AR-09-DRAFT)

The Eastern Area has reviewed the above referenced document and agrees that opportunities exist to affect vehicle reliability by completing all scheduled maintenance. We agree that opportunities exist to improve efficiencies in Vehicle Maintenance Service by ensuring timely submission of data for contracted vehicle repairs, monitoring and tracking of performance indicators, optimizing VMF resources by striving for the proper balance of USPS and commercial support based on geographical location cost and staffing.

We cannot agree with the projected savings of \$11,465,250 over 10 years. There is no business model that remains constant for 10 years. Since the OIG uses a two year prior audit principle, the same two year principle should apply in projecting forward. Without having the full details on how the data was derived, we cannot adequately present a specific monetary amount that is amendable to us. We would consider a straight line of 20% of the 10 year projected savings.

We are in concurrence with most of the recommendations and will take the necessary steps to address those recommendations as follows:

Recommendation #1: The Vice President, Eastern Area Operations, direct district managers to require vehicle maintenance facility officials to immediately conduct all maintenance in arrears and properly record vehicle status if maintenance was not conducted.

Response: The Eastern Area understands the importance of servicing vehicles and agrees that maintaining a current status of all scheduled vehicle maintenance assists in preserving USPS assets, reducing costs, and increasing employee and public safety. All SPM's (or PMI's) in arrears are tracked in VMAS and verified each month with the VMF's. The VMF's identified in the reference document reported 100 percent completion of all SPM's for FY 2007 in VMAS. We acknowledge that this completion rate was not achieved in all VMF's in the Eastern Area. As noted in the review, the Eastern Area maintained a 96 percent completion rate. In addition to the tracking in VMAS, teleconferences with the VMF Managers are conducted twice each month during which VMF performance indicators are discussed. Included among the indicators discussed are PMI's in arrears and what action each VMF is taking to have them completed.

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Recommendation #2: The Vice President, Eastern Area Operations, direct district managers to monitor and track key maintenance activities to ensure timely completion of all required scheduled maintenance and repairs.

Response: The Eastern Area agrees that monitoring and tracking key vehicle maintenance activities will promote the desired effect of maintaining vehicles in optimal conditions and preserving USPS assets. The Eastern Area tracks 20 main VMF performance indicators each month which includes PMI's in arrears, vehicle in-shop days, and scheduled-vs.-unscheduled repair percentages. Performance reviews are conducted monthly during one of the bi-weekly teleconferences held with all of the VMF Managers in the Eastern Area. During these teleconferences an open discussion is held with each VMF manager about performance indicators for their facility and ways to improve processes on those indicators not meeting expected levels. In addition to these performance reviews conducted with the VMF managers, in order to ensure that the District Managers have the tools to adequately track and monitor vehicle maintenance activities, the Eastern Area VMPA will begin to distribute the reports of the VMF performance indicators to the District Managers and Area Executives each month beginning in April 2009.

Recommendation #3: The Vice President, Eastern Area Operations, direct district managers to require vehicle postal office officials to timely submit documentation to vehicle maintenance facilities to verify completion of scheduled maintenance by local vendors.

Response: The Eastern Area understands the importance of accurate and complete records of the activities and costs associated with vehicle maintenance to the development of processes to improve efficiencies. The Eastern Area agrees that documentation of vehicle repairs performed by local vendors must be submitted timely to vehicle maintenance facilities in order to develop an accurate assessment of these maintenance activities and costs. The implementation of the Voyager Fleet Management credit cards was part of a program to cut costs through rebates and streamline accounting procedures. With the efficiencies gained through the use of these credit cards came the requirement to submit invoices through the proper channels for costs accounting. Voyager credit card guidelines and training state that invoices and receipts for maintenance and repairs must be sent to the servicing VMF for entry into VMAS. The Eastern Area will send out a directive to review the accounting practices guidelines for use of the Voyager Fleet Management credit card.

Recommendation #4: The Vice President, Eastern Area Operations, direct district managers to:

- Maintain the most efficient combination of vehicle maintenance facility and commercial resources based on the geographical location and costs
- Make optimal use of the Postal Service's national vehicle shuttle agreement or other local commercial shuttle services, when cost-effective, for transporting vehicles to and from facilities

Response: The Eastern Area agrees that the VMF's need to determine the best use of postal vehicle maintenance technicians and quality contractor services to maintain the vehicle fleet in optimal conditions. District Managers and Vehicle Maintenance Facility Managers will review their maintenance operations to determine the most cost effective and efficient balance between in-house and contract maintenance. Local VMF Managers, who have knowledge of

their geographical areas and past experience with local contractors, will be given the latitude to determine whether a vehicle should be serviced at the VMF or at a contractor. The "Optimization Model" used by the OIG in drafting this report would be a very useful tool to determine better ways to control costs and gain operational efficiencies if it is made available to the VMF Managers. The Eastern Area agrees that the use of the national shuttle contract can be a cost effective alternative in some VMF situations. The Eastern Area VMF managers have been advised in the bi-weekly teleconferences to contact the shuttle contract vendor to determine the most cost effective means to shuttle vehicles into the VMF for service.

We do not believe there is any Freedom of Information Act exempt information in the draft report or our response.


Megan J. Brennan
Attachment

cc: Tom Duchesne, Manager, Maintenance Operations, Eastern Area