



September 29, 2008

JO ANN FEINDT
VICE PRESIDENT, GREAT LAKES AREA OPERATIONS

SUBJECT: Audit Report – Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Great Lakes Area (Report Number DR-AR-08-009)

This report presents the results of our self-initiated audit, Vehicle Maintenance Facilities (VMF) – Scheduled Maintenance Service in the Great Lakes Area (Project Number 08XG007DR000). The overall objectives were to assess whether the Great Lakes Area accomplished the required vehicle scheduled maintenance and whether they integrated both VMFs and local commercial resources for optimum efficiency. Click [here](#) to go to Appendix A for additional information about this audit.

Conclusion

The Great Lakes Area completed the majority of their required scheduled preventive maintenance (SPM¹) in fiscal year (FY) 2007. However, management could further optimize VMF efficiency through the more effective use of VMF and local commercial resources. Better optimizing its resources could save the Great Lakes Area an estimated \$28 million over 10 years.

Scheduled Maintenance Performance

Great Lakes Area VMF units and LCVs completed an average of 90 percent of their required SPMs. Four VMF units completed all of the SPMs, and five VMF units completed between 73 and 97 percent of the required SPMs. Not completing all the required SPMs occurred because of:

- A shortage of assigned maintenance technicians.
- An increased maintenance workload at one VMF unit.²
- An inadequate process for VMF units to manage available maintenance and repair resources.
- The practice of changing vehicle status from “maintenance not performed” (also called “maintenance in arrears”) to “maintenance performed” by adjusting the SPM schedule.

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

² One VMF unit’s maintenance workload included servicing new vehicles that were not assigned to their facility.

Without completing all the required SPM, the U.S. Postal Service may be more vulnerable to vehicle breakdowns and accidents, which could adversely impact timely mail delivery and potentially affect 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 their SPM in a timely manner. Click [here](#) to go to Appendix B for additional information about this audit.

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

1. Assess vehicle maintenance technician positions at individual vehicle maintenance facilities to ensure sufficient staff is available for maintenance service.
2. Monitor and track key maintenance activities to ensure timely completion of all required scheduled maintenance and repairs.
3. Require vehicle maintenance facility officials to immediately conduct all missing or past due maintenance in arrears and properly record vehicle status if maintenance was not conducted.
4. Discontinue the practice of adjusting the vehicle maintenance schedules to eliminate situations where maintenance was not performed.

Optimum Use of Resources

The Great Lakes 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 often used LCVs for vehicle maintenance and repairs when using VMF resources would have been more efficient and economical. Likewise, VMF resources were often used when LCVs would have been more efficient and economical. Additionally, VMF officials used maintenance employees to shuttle vehicles between facilities for maintenance and repairs when more economical means existed. Click [here](#) to go to Appendix C for additional information on 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 Great Lakes Area expended more resources than necessary to complete vehicle maintenance and repairs. By optimizing its resources, the Great Lakes Area could reduce operating costs by about \$2.8 million annually or more than \$28 million over 10 years. Click [here to](#) go to Appendix D for our detailed analysis of the monetary impact.

We recommend the Vice President, Great Lakes Area Operations, direct district managers:

5. Work with vehicle maintenance facility officials to:

- Maintain the most efficient combination of vehicle maintenance facilities and local 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. Management stated they plan to issue a letter directing district managers to assess vehicle maintenance technician positions, monitor and track key maintenance activities, discontinue the practice of performing abbreviated SPM, and adjust the maintenance schedule to prevent maintenance in arrears. Also, the Area Vehicle Maintenance Programs Analyst will provide a monthly report to each district with the status of SPM completions. Management stated that each district manager must immediately develop a plan to complete all maintenance in arrears by June 2009 and remain in a non-delinquent status in future months.

Furthermore, district vehicle maintenance managers will maximize opportunities to use local vendors for scheduled maintenance and shuttling to eliminate maintenance in arrears by June 2009. However, Great Lakes Area management disagreed with the estimated \$28 million over the next 10 years because they could not validate the savings. We have included management's comments, in their entirety, in [Appendix G](#).

Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to the recommendations and the corrective actions should resolve the issues identified in the report.

Management disagreed with our estimated monetary impact of \$28 million over the next 10 years, stating they were not provided hard data or an opportunity to examine the savings model to verify the estimated savings. The OIG believes the model used to calculate savings provided a reasonable estimate of costs the Postal Service could save by optimizing VMFs and LCVs. Further, we provided Great Lakes Area management with detailed hard copy model data for examination on September 4, 2008. The OIG also conducted detailed discussions on September 3 and 4, 2008, to explain to Great Lakes Area management how we used the model and calculated the estimated savings. Since Great Lakes Area management agreed that opportunity exists to improve efficiency and plans are underway to better utilize VMF and LCV resources, we believe the estimated savings are applicable and properly classified as monetary impact.

We will report \$28,224,843 of funds put to better use in our *Semiannual Report to Congress*. The OIG considers recommendation 5 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 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
for Mission Operations

Attachments

cc: Patrick R. Donahoe
William P. Galligan
Anthony M. Pajunas
Jordan M. Small
Wayne W. Corey
Bruce D. Plumb
Tracye D. Trent-Cashdollar
Kathy R. Mayfield
John C. Briggs
Christopher B. Powers
Janice J. McAllister
Michael D. McFarland
John C. Klim
Mary E. Zirille
Katherine S. Banks

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Postal Service has invested more than \$3 billion in vehicle assets for the purpose of transporting and delivering the mail. The vehicle inventory consists of 219,522 delivery, transport, and administrative vehicles. Delivery and collection vehicles (see the examples in Figure 1) account for 195,211 or about 89 percent of the total fleet. 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. Auxiliary VMFs were established for situations where vehicle maintenance requirements exceed VMF resources or when shuttle time or geographical distances warrant the 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 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 a Vehicle Post Office (VPO). VPOs can be post offices, branches, stations, 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 preventive or scheduled maintenance over reactive or unscheduled maintenance. (See [Appendix F](#), “Scheduled Maintenance Process,” for a flowchart.)

The Postal Service also established a Model Vehicle Maintenance Facility Performance Review program. The review program is an integral part of VMF operations, and is a key tool for determining the efficiency of a unit at a given time for identifying areas that need corrective action. Districts must ensure that self-reviews are performed in all VMFs on a quarterly basis. 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 Vehicle Management Accounting System (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 Great Lakes 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 9³ of the 28 VMFs in the Great Lakes Area. We documented the scheduled maintenance and number of SPMs required, and whether they were conducted in a timely manner. 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 the actual maintenance records. We also obtained and reviewed Web-based Complement Information System (WebCOINS) data on the complement of vehicle maintenance technicians.

We reviewed FY 2007 for scheduled maintenance services for selected Great Lakes Area VMFs (see [Appendix E](#)). We identified the number of Preventive Maintenance Inspections (PMIs)⁴ to be performed at each 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 each VMF and LCV expenditures for scheduled maintenance. In discussions with VMF managers and reviews of maintenance records, we documented the number of SPMs and SPM inspections required for each location on a yearly basis. Using the VMAS vehicle work order history, we analyzed the average time to perform an SPM for the nine VMF units reviewed in our sample.

We developed an optimization model that used the above operational data to establish a baseline, standards, key characteristics, shuttle usage and cost. Using this data, we established an optimum operating efficiency for each VMF. Click [here](#) to go to Appendix D, “Calculation of Cost Savings,” for the model and assumptions we used to compute monetary benefits.

We conducted this performance audit from October 2007 through September 2008 in accordance with generally accepted government auditing standards and included tests of internal controls that 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 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

³ The random sample was reduced from ten to nine. We excluded the Gary, Indiana VMF due to the difficulty in verifying the number of SPMs performed because of discrepancies in the 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.

integrity to support our reliance on the data. We discussed our observations and conclusions with management officials on September 3, 2008, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

The OIG has issued five reports related to our objectives.

Report Title	Report Number	Final Report Date	Monetary Impact
<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
<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 previous 2008 audits, like this one of the Great Lakes Area, are part of a series of audits on this topic. Like these audits, the Great Lakes Area did not complete SPMs on all vehicles, and did not always integrate both VMF and LCV resources for optimum efficiency. Management agreed with our findings, recommendations, and monetary impact.

The 2007 audit concluded that using the Postal Service Form 8230, Authorization for Payment, process 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 2006 audit concluded the Postal Service officials have made significant strides in reducing costs associated with delivery vehicle expenditures over the past 3 years. However, delivery management officials could further improve the use of vehicles that support delivery operations. Postal Service officials maintained excess and underused delivery vehicles, and they leased delivery vehicles from employees and commercial vendors when Postal Service-owned vehicles were available. Additionally, delivery officials did not monitor the reasonableness of payments or the need for contracts with employees for use of their personal vehicles. Management agreed with our findings, recommendations, and monetary impact.

APPENDIX B: SCHEDULED MAINTENANCE PERFORMANCE

The Great Lakes Area completed 90 percent of their required SPMs during FY 2007.⁵ Four VMF units completed all of their SPMs. The other five VMF units completed between 73 and 97 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 of Performed
Detroit	2,693	2,693	100
Ft. Wayne	725	614	85
Grand Rapids	1,933	1,813	94
Green Bay	1,842	1,793	97
Lansing	1,429	1,429	100
Milwaukee	4,574	3,331	73
Saginaw	881	881	100
South Bend	874	809	93
Springfield	961	961	100
Gary ⁶	Not Verified	Not Verified	N/A
Total/Average	15,912	14,324	90

Source: VMAS and OIG optimization model

Several factors contributed to the above conditions.

- **Insufficient Staffing.** Officials stated the shortage of assigned maintenance technicians due to medical leave and the increased maintenance workload of one VMF unit⁷ contributed to not performing required SPMs. Officials indicated they determine their maintenance technician staffing requirements based on a staffing study completed by a Postal Service Headquarters task force several years ago. Based on the study results, each VMF was allocated a specific number of maintenance technician positions to staff each facility. This data was used because the Postal Service had not established a formal staffing policy for VMF maintenance technician positions.⁸ We reviewed WebCOINS which showed the Great Lakes Area has 21 full-time maintenance technician vacancies. Our optimization model⁹ analysis does not support additional full-time maintenance technicians for these VMFs if the VMFs performed at an optimal level. (See Table 3.)

⁵ In FY 2007, approximately 15,912 SPMs were required in the nine units we reviewed in the Great Lakes Area.

⁶ We excluded this VMF from our sample due to the difficulty in verifying the number of SPMs performed because of discrepancies in the vehicle inventory. We have no reason to believe the exclusion alters the Great Lakes Area percentage of maintenance performed.

⁷ The VMF unit's maintenance workload included servicing vehicles not assigned to their facility.

⁸ We intend to address a need for a standardized staffing matrix in our national capping report to Postal Service Headquarters.

⁹ Our optimization model's solution bases staff increase/decrease requirements on the number of "assigned" full-time maintenance technician positions.

**Table 3. Estimated VMF Staffing Increase/Reduction Needs Based on
OIG Optimization Model**

VMF Location	Currently Assigned Vehicles	Technicians Assigned	Staff Increase/Reduction per OIG Optimization Model
Detroit	1,276	27	-3
Ft. Wayne	474	6	0
Grand Rapids	1,055	18	0
Green Bay	854	5	-1
Lansing	639	11	0
Milwaukee	2,116	30	1
Saginaw	474	8	0
South Bend	525	6	0
Springfield	443	9	0
Total	7,856	120	-3

Source: VMAS, VMF management, and OIG optimization model

- Reporting and Tracking Maintenance Activities. Some VMF officials completed the Model Vehicle Maintenance Facility Performance Reviews for the VMFs.¹⁰ However, these oversight efforts are not effective in managing vehicle maintenance programs to ensure timely completion of all SPMs due to inadequate and unreliable performance data. For example, one of the nine VMFs in our sample showed the facility completed more than 90 percent of their required SPMs in FY 2007, but the maintenance status reports showed no vehicles requiring maintenance as of September 30, 2007.
- Recording of Vehicle Status. The Great Lakes Area VMFs sometimes changed vehicle status from “maintenance not performed” (also called maintenance in arrears) to “maintenance performed.” For example, one VMF location showed 72 vehicles as “maintenance in arrears” in WebEIS during August 2007. This location also consistently had vehicles in arrears every month during FY 2007 recorded in WebEIS, ranging from approximately 15 to 72 vehicles per month. However, on September 30, 2007, the location showed zero vehicles in arrears. Officials stated that sometimes they perform an abbreviated SPM, the “six minute inspection,” and adjust the SPM schedule to prepare the annual vehicle maintenance plan for the next fiscal year.

Without completing all the required scheduled maintenance and repairs, some of the Postal Service vehicles are vulnerable to breakdowns, which could adversely impact timely mail delivery and potentially affect 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.

¹⁰ Per Handbook PO 701, *Fleet Management*.

APPENDIX C: OPTIMUM USE OF RESOURCES

The Great Lakes 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 often used LCVs for vehicle maintenance and repairs when using VMF resources would have been more efficient and economical. Likewise, VMF resources were often used when LCVs would have been more efficient and economical. Additionally, VMF officials used maintenance employees to shuttle vehicles between facilities for maintenance and repairs when more economical means existed.

Several factors contributed to this condition.

- Optimum Use of VMF and Commercial Resources. The vehicle maintenance plans for the nine VMFs did not consider an optimum combination of both VMF and commercial resources.¹¹ Generally, it is more cost effective for the VMF to perform SPMs on VPO vehicles stationed within 50 miles of the VMF. However, a LCV should perform SPMs on vehicles when the VPO is more than 50 miles from the nearest VMF. We determined that 2,583 SPMs should have been performed at the other site - either the VMF or the commercial facility. (See Table 4.)

Table 4. VMF and Local Commercial Vendor Resources

VMF Location	FY 2007 SPMs Performed by		Total SPMs Performed	SPMs That Could Have Been More Optimally Performed by		Total SPMs That Could Have Been More Optimally Performed
	VMF	Local Vendors		VMF	Local Vendors	
Detroit	1,861	832	2,693	467	0	467
Ft. Wayne	614	0	614	0	0	0
Grand Rapids	1,786	27	1,813	0	58	58
Green Bay	551	1,242	1,793	101	8	109
Lansing	1,248	181	1,429	52	584	636
Milwaukee	2,499	832	3,331	39	1,100	1,139
Saginaw	703	178	881	16	100	116
South Bend	747	62	809	15	36	51
Springfield	961	0	961	0	7	7
Total	10,970	3,354	14,324	690	1,893	2,583

Source: VMAS data and OIG optimization model.

- Vehicle Shuttling. In most cases, we found that the Postal Service’s national vehicle shuttle agreement or local commercial shuttling services were more cost effective than using VMF maintenance technicians. The Great Lakes Area used

¹¹ The 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 considered all work of at least 2 hours as an SPM.

15,631 workhours for vehicle maintenance technicians to shuttle vehicles rather than perform maintenance. The shuttle hours related to SPMs were equivalent to about nine maintenance technician positions at a cost of \$672,750.¹² (See Table 5.)

Table 5. Vehicle Maintenance Technician Hours Used for Shuttling

VMF Location	Number of Vehicle Maintenance Positions Assigned	Estimated Maintenance Scheduled Maintenance Hours Available	Total Shuttle Hours Used in FY 2007	Percentage of Direct Maintenance Hours Used in FY 2007	Shuttle Hours Used by Scheduled Maintenance	Equivalent Maintenance Technician Positions	Cost of Shuttle Hours Used by Maintenance Technicians
Detroit	27	37,886	2,964	8%	2,119	1.21	\$91,185
Ft. Wayne	6	8,419	1,136	13%	638	0.36	27,460
Grand Rapids	18	25,258	5,495	22%	2,527	1.44	108,753
Green Bay ¹³	5	7,016	32	0%	3	0.00	142
Lansing	11	15,435	1,370	9%	2393	1.36	102,995
Milwaukee	30	42,096	8,373	20%	5,791	3.30	249,236
Saginaw	8	11,226	1,602	14%	842	0.48	36,227
South Bend	6	8,419	3	0%	0	0.00	0
Springfield	9	12,629	1,994	16%	1,319	0.75	56,753
Total/Average	120	168,384	22,970	14%	15,631	8.91	\$672,750

Source: VMAS and OIG optimization model

VMF officials indicated that the vehicle maintenance plan does not incorporate provisions for optimum use of resources to reduce operating cost. In addition, officials stated that they are reluctant to use shuttle alternatives due to historical union grievances and concerns. Also, officials stated that the quality of maintenance performed by LCV is often not comparable to the VMF, and a LCV cannot guarantee efficient service. Finally, officials stated that unique challenges face the Great Lakes Area due to the weather conditions and the absence of LCV competition in smaller towns.

The OIG acknowledges the issues and concerns management raised and the financial challenges faced by the Postal Service that affect VMF operations. Notwithstanding these concerns and challenges, in our opinion, opportunities exist to become more efficient and potentially save money. Specifically, the Great Lakes Area could lower overall costs by \$ 2.8 million annually. These efficiencies when projected for the 28 VMFs in the Great Lakes Area could save an estimated \$28 million. Click [here](#) to go to Appendix D for our detailed analysis of the monetary impact.

¹² 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.

¹³ According to a grievance settlement awarded to the Green Bay VMF mechanics, all shuttling must be accomplished by craft employees.

APPENDIX D: OIG CALCULATION OF COST SAVINGS

The OIG identified \$28,224,843 in funds put to better use over the next 10 years for the Great Lakes Area’s 28 VMFs.¹⁴

Savings in Dollars

VMF Location	Average Annual Savings	Estimated Savings Over 10 Years
Detroit	\$297,503	\$2,975,028
Ft. Wayne	22,316	223,159
Grand Rapids	57,066	570,663
Green Bay	25,362	253,618
Lansing	32,593	325,929
Milwaukee	248,059	2,480,588
Saginaw	148,152	1,481,517
South Bend	12,481	124,808
Springfield	63,696	636,961
TOTALS	\$907,228	\$9,072,271
Potential Projected Savings Over 28 VMFs in the Great Lakes Area		\$28,224,843

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. The number of SPMs that a vehicle requires is determined at the beginning of the year based on the demands that the assigned route places on the vehicle. All SPMs 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 mechanic 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.
- 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 currently performed by VMFs were considered to be completed by a

¹⁴ At a 95 percent confidence level, the OIG estimates the 10-year savings amount to range between \$9.3 and \$47.0 million. We used the midpoint estimate of \$28.2 million in our statistical projection.

LCV.¹⁵ 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 each of the next 10 years, assuming that the Postal Service would reduce the labor contingent by 3.45 percent per year, the historical Great Lakes Area attrition rate.¹⁶ 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 done by both the VMFs and contractors. The model analyzes all costs and hours (for SPMs at VMFs, SPMs at LCVs, VMF shuttling, and contract shuttling). The model also shows the SPMs performed by, and the total amount that could be more optimally performed by VMFs and LCVs.
- In these optimizations, we assumed that each VMF would operate at a standard efficiency. We used the sampled nine Great Lakes Area VMFs' average time per SPM as a standard for the time it takes to complete an SPM in that area. If a particular VMF performed better than this standard, we assumed that 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 considered all work of at least 2 hours¹⁷ as an SPM. We explained the process and 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 VMF's total shuttling time to the aggregate time that should be needed to perform all of the VMF's shuttling, assuming that two vehicles were transported on each trip. The cost of any excess time was time that could have 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 average overtime hours per week from what the VMFs used during the first 6 months of FY 2008 determined from the Enterprise

¹⁵ We obtained the current number of SPMs performed by VMFs and LCVs from VMAS databases located at the VMFs and [REDACTED]. Because a VMF may not perform all its required SPMs, we assumed a LCV 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.

¹⁶ The historical attrition rate for Great Lakes Area maintenance technicians was determined by averaging the past 7 years (2001 - 2007) of data obtained from the WebEIS.

¹⁷ 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.

Data Warehouse system. The number of hours of straight time worked for each mechanic per year is 1,754.¹⁸

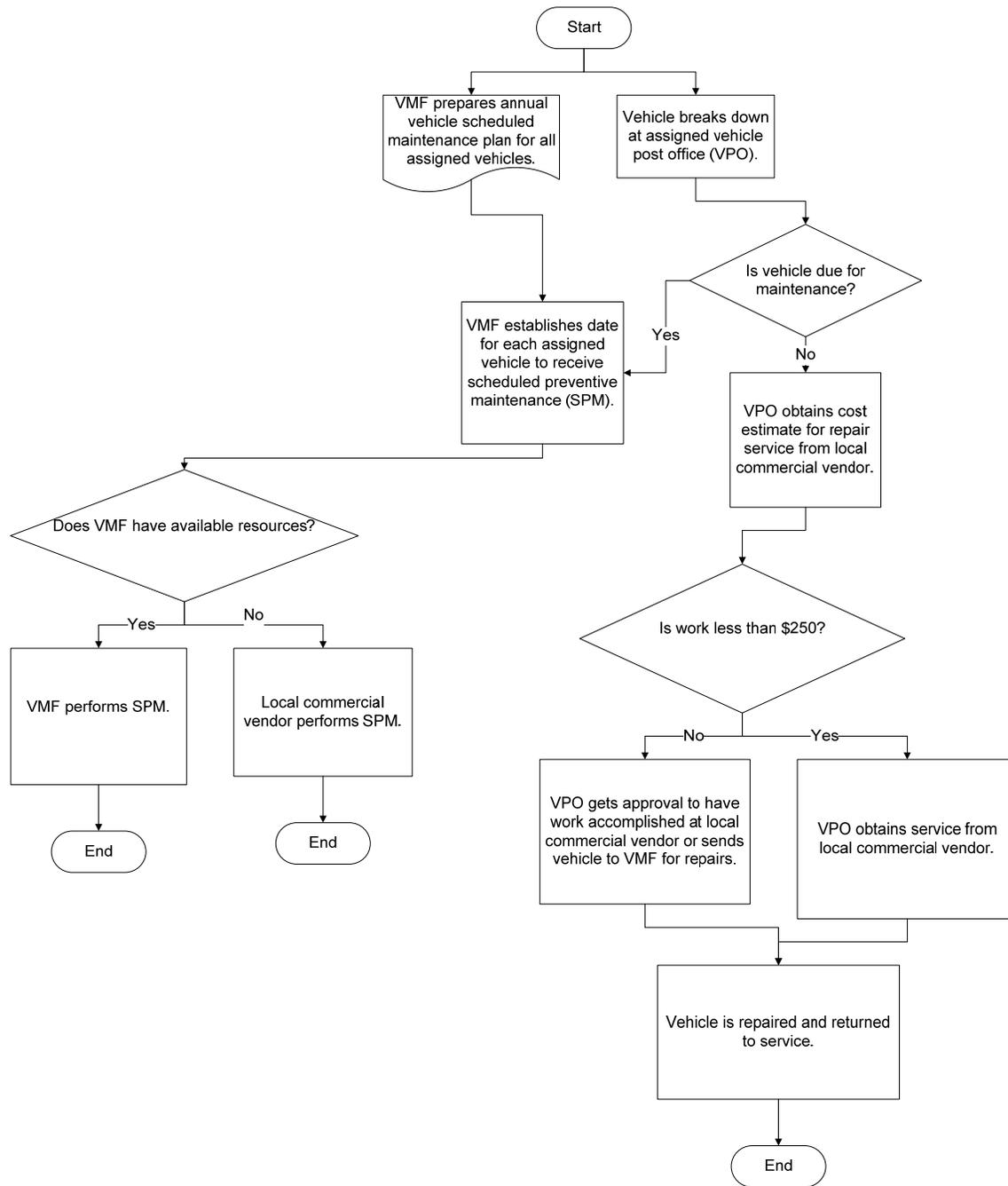
- Based on the above analyses and projections, we estimated that the Great Lakes Area could reduce costs by using local commercial resources for shuttling and SPM requirements when appropriate. We projected over the Great Lakes Area's universe of 28 VMFs, a reduction of costs by approximately \$2.8 million annually, or more than \$28 million over a 10-year period.

¹⁸ Source: Finance Memorandum dated March 6, 2006, "Workhour Rates for Fiscal Years 2005 - 2007."

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

District	VMF
Central Illinois	Springfield
Detroit	Detroit
Greater Indiana	Ft. Wayne
	South Bend
Greater Michigan	Grand Rapids
	Lansing
	Saginaw
Lakeland	Green Bay
	Milwaukee

APPENDIX F: SCHEDULED MAINTENANCE PROCESS¹⁹



¹⁹ Source: Postal Service Handbook PO-701, *Fleet Management*, March 1991.

APPENDIX G: MANAGEMENT'S COMMENTS

JO ANN FEINDT
VICE PRESIDENT, GREAT LAKES AREA OPERATIONS



September 22, 2008

Lucine Willis
Director, Audit Operations
1735 North Lynn Street
Arlington, VA 22209-2020

SUBJECT: Draft Audit Report – Vehicle Maintenance Facilities – Scheduled Maintenance Service in the Great Lakes Area (Report Number DR-AR-08-DRAFT)

We have reviewed the above referenced report, including the six recommendations to ensure compliance and completion of all scheduled maintenance, and better optimize VMF resources. We are in concurrence with most of the findings and recommendations as follows:

Recommendation 1: The Vice President, Great Lakes Area Operations, direct District Managers to assess vehicle maintenance technician positions at individual vehicle maintenance facilities to ensure sufficient staff is available for maintenance service.

Response: Management concurs that assessment of vehicle maintenance automotive technician's positions (and all vehicle maintenance positions) are in the best interests of the USPS. While the Great Lakes Area continues to assess these positions based on the current headquarters staffing criteria, we await the new Headquarters staffing matrix under development. A standardized staffing matrix is much needed and has been requested by the Vehicle Maintenance Programs Analysts (VMPA) on several occasions.

Course of Action: The Vice President, Great Lakes Area, will generate a letter of instruction, directing the District Managers to assess vehicle maintenance automotive technician positions. This letter will emphasize that these positions are to be filled based on the number of vehicle assets requiring maintenance to better ensure sufficient staff availability for vehicle maintenance service.

Recommendation 2: The Vice President, Great Lakes Area Operations, direct District Managers to monitor and track key maintenance activities to ensure timely completion of all required scheduled maintenance and repairs.

Response: Management concurs that monitoring and tracking key vehicle maintenance activities will promote the desired effect of ensuring completion of all required scheduled maintenance, repairs, and that all maintenance requirements are met in a timely manner.

Course of Action: District Managers will be directed to monitor and track key maintenance activities to ensure timely completion of all required scheduled maintenance, repairs, and that all maintenance requirements are met in a timely manner. The Area VMPA will send the districts a monthly update on their progress in being non-delinquent with their SPM inspections. This action will be incorporated into the letter of instruction detailed in the “Course of Action” in Recommendation 1.

Recommendation 3: The Vice President, Great Lakes Area Operations, direct District Managers to require VMF officials to immediately conduct all missing or past due maintenance in arrears and properly record vehicle status if maintenance was not conducted.

Response: Management concurs that maintaining vehicle scheduled maintenance in a current status preserves USPS assets, reduces costs, and increases employee and public safety while minimizing liability exposure to the USPS.

Course of Action: District Managers will be directed to immediately develop a plan for completion of all schedule maintenance in arrears to be completed by the end of June 1, 2009, and to remain in a non-delinquent status on a monthly basis for all future months. This action plan will be due to the Area VMPA for review and concurrence by October 17, 2008.

Recommendation 4: The Vice President, Great Lakes Area Operations, direct District Managers to discontinue the practice of adjusting the vehicle maintenance schedules to when they have vehicles in arrears balances to eliminate situations where maintenance was not performed.

Response: Management agrees that arbitrarily adjusting the vehicle maintenance schedule to appear in a non-delinquent status is to be discontinued as it destroys the integrity of vehicle maintenance data and masks an operational deficiency.

Course of Action: District Managers will be directed to instruct vehicle maintenance managers that this practice is to be discontinued immediately. The practice of applying a 1/10th of an hour to the unperformed maintenance, and then adjusting the maintenance schedule to avoid delinquency will not be tolerated. This action will be incorporated into the letter of instruction detailed in the “Course of Action” in Recommendation 1.

Recommendation 5: The Vice President, Great Lakes Area Operations, direct District Managers to work with vehicle maintenance facility officials to modify the annual

vehicle maintenance plan to provide for all scheduled maintenance to better manage and improve efficiency. The recommendation breaks the plan into two recommendations that will be called A and B. The plan should:

- A) Make optimal use of both vehicle maintenance facilities and local commercial resources for repairing and maintaining vehicles based on the vehicles' geographic location.

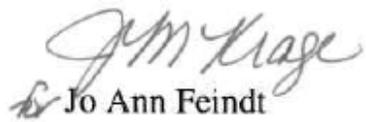
Response: Management agrees, in principle, that the VMFs need to develop a plan to use a better combination of VMF work and contracting out work to become and remain non-delinquent in scheduled maintenance inspections. Local VMF jurisdictional areas need to be reassessed to determine where contracting can be expanded, consistent with Article 32 of the National Agreement. However, since there is no tool presently available to define "optimal", the Great Lakes Area will leave that at the District Manager Vehicle Maintenance discretion on how to be in a permanent non-delinquent status by the end of May 2009.

- B) Make optimal use of the Postal Service's national shuttle agreement or local commercial shuttle services, when cost-effective, for transporting vehicles to and from maintenance facilities.

Response: Management agrees, in principle, that the VMFs need to develop a plan to use their technicians to the maximum extent possible working on vehicles and not shuttling vehicles. The national shuttle agreement must be found to be uneconomical or impractical to not be utilized to some degree. However, since there is no tool presently available to define "optimal", the Great Lakes Area will leave that at the discretion of the District Manager Vehicle Maintenance.

Course of Action: District Managers will instruct the District Manager Vehicle Maintenance to maximize contracting scheduled maintenance work and shuttling to be in a non-delinquent status by June 1, 2009. Use of vehicle maintenance employees to attain this non-delinquent status and the use of contracting must be in compliance with all segments of the National Agreement and LMOUs.

Summary: The Great Lakes Area management is in agreement that opportunity exists to improve our efficiency and to strike a better balance between the use of contracting and actual VMF work. Area management also agrees that bringing the fleet to a non-delinquent status is in the best interest of the employees and public's welfare, and will also reduce any future liability issues due to delinquent scheduled maintenance. However, the Great Lakes Area does not agree to the estimated \$2.8 million savings per year, for the next ten years. This audit has failed to provide hard data and the savings model for examination, use, and verification of these estimated savings.


Jo Ann Feindt

Attachment

cc: Kathy Banks
Patricia E. Whiteside
Nelda Z. Smith
Marlene Wong
Jacqueline Krage
Mark Rosenwinkel
Robert Kunowski