



February 26, 2010

JERRY LANE
VICE PRESIDENT, CAPITAL METRO AREA

SUBJECT: Audit Report – Capital Metro Area: Reducing Pieces at Risk
(Report Number DA-AR-10-001)

This report presents the results of our self-initiated audit related to Delivery Bar Code Sorter (DBCS) pieces at risk¹ in the Capital Metro Area (Project Number 09YG041DA000). This review is part of our initiative to conduct risk-based audits on a continuous basis. Our objective was to identify opportunities to reduce DBCS pieces at risk in the Capital Metro Area. The primary component of mailpieces at risk is rejected mail that results in manual rehandling. See [Appendix A](#) for additional information about this audit.

Conclusion

The U.S. Postal Service's annual pieces at-risk target for DBCS mail is 2 percent of total pieces handled. For the 2-year period ending September 30, 2009, Capital Metro pieces at risk averaged 3.1 percent, 55 percent higher than the target. Capital Metro processing plants did not achieve the pieces at-risk target, because electronic technicians and maintenance supervisors were unaware of the management maintenance order (MMO) used to diagnose and reduce DBCS pieces at risk. In addition, not all DBCS staff was properly trained, and maintenance supervisors did not ensure preventive maintenance routines were completed properly to bring at-risk pieces within operational quality standards.

As a result, the Capital Metro area incurred excess mailpiece rejects that required manual processing. This cost the Capital Metro Area approximately \$1.0 million for the 2-year period ending September 30, 2009. The Capital Metro Area can avoid incurring an additional \$1.1 million over the next 2 years by addressing these issues. See [Appendix B](#) for our detailed analysis.

We recommend the area vice president, Capital Metro Area:

1. Instruct electronic maintenance technicians to adhere to Maintenance Management Order MMO-044-07 when diagnosing Delivery Bar Code Sorter pieces at risk.
2. Instruct Delivery Bar Code Sorter operators to follow letter mail operational standards for quality.

¹ Pieces at Risk are mailpieces that are at risk of not reaching their destination in their allocated time.

3. Require that maintenance supervisor's ensure preventive maintenance routines are completed in accordance with Maintenance Management Order MMO-013-05.

Management's Comments

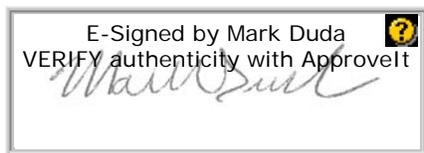
Management concurred with the findings and recommendations pertaining to reducing DBCS pieces at risk. Management is addressing maintenance deficiencies by requesting each district manager comply with MMO-044-07 and MMO-013-05. Plant managers are also ensuring that DBCS personnel are properly trained and fully understand pieces at risk in order to comply with operational quality standards. In addition, the area maintenance staff will continue to review and monitor at risk performance to provide guidance and protect service. Management agreed in principle that monetary impact exists and committed to capturing potential savings by implementing efficiencies. See [Appendix C](#) for management's comments, in their entirety.

Evaluation of Management's Comments

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

The OIG considers all recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. This recommendation should not be closed in the follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Miguel Castillo, director, Engineering, or me at (703) 248-2100.



Mark W. Duda
Deputy Assistant Inspector General
for Support Operations

Attachments

cc: Edward Gamache
Sally K. Haring

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

We identified mailpieces at risk in the Capital Metro Area as part of our initiative to conduct risk-based audits on a continuous basis. Pieces at risk are mailpieces that are at risk of not reaching their destination in their allocated time. The primary component of mailpieces at risk is rejected mail that results in manual rehandling. Mail is processed manually when it is rejected by or cannot be processed by machinery. Manual mail processing increases costs and is not as timely as automation.²

The DBCS, a multilevel, high-speed bar code sorter, is one of the critical pieces of automation equipment in Postal Service processing plants. Implementation of the delivery point bar code allows the DBCS to sort mail in carrier walk sequence, eliminating the need for additional sorting at the delivery unit. Letter trays of sequenced mail are expected to be transported by the carrier directly to the vehicle for delivery.

Plant operations are responsible for planning, staffing, and operating DBCS machines according to prescribed standards. The maintenance management function at each processing plant is responsible for ensuring DBCS machines run at optimal levels. Both functions have responsibilities for minimizing pieces at risk.

The following systems provide information to help management effectively and efficiently operate DBCS equipment to process letter mail.

- The Web End of Run (WebEOR) system reproduces, archives, and summarizes information captured during a mail processing run. WebEOR offers standard reports on operations, maintenance, and machine configuration data.
- The Mail Image Reporting System (MIRS) summarizes pieces at risk captured during a mail processing run. MIRS also offers a number of standard reports, including reports for operations, maintenance, and machine summary data.
- The Electronic Maintenance Activity Reporting & Scheduling system is used to modernize the maintenance management information system and update the maintenance support function to meet new organizational requirements.

² The FY 2009 cost per hour is \$39 for manual letters while the cost to process using automation is \$9.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our audit objective was to identify opportunities to reduce pieces at risk for the DBCS. We reviewed the Capital Metro Area because pieces at risk exceeded targets. To accomplish our objective we performed site visits at the Capital Metro Area mail processing facilities and interviewed plant personnel. In addition, we analyzed the maintenance completion rates for each district within the Capital Metro Area for DBCS operations for the 2-year period ending September 30, 2009. We also reviewed letter mail gross acceptance and reject rates as described in the Postal Service's *DBCS Standardization Work Instruction*. To determine cause, we analyzed pieces at-risk reports for each site in the Capital Metro Area. To calculate the monetary impact, we limited our analysis to Delivery Point Sequence (DPS)³ mailpiece rejects that must be processed manually at delivery units.

We conducted this performance audit from September 2009 through January 2010 in accordance with generally accepted government auditing standards and included such 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 objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on November 23, 2009, and included their comments where appropriate.

³ DPS is the automation process used to sort mail in carrier walk sequence. The costs of reprocessing mailpiece rejects at plants were captured under a prior OIG report. Therefore, our analysis and monetary impact calculation was based on second pass DPS mailpiece rejects, which are processed manually at the delivery units.

PRIOR AUDIT COVERAGE

The U.S. Postal Service Office of Inspector General (OIG) previously issued the following reports related to preventive maintenance and reject rates associated with letter mail operations.

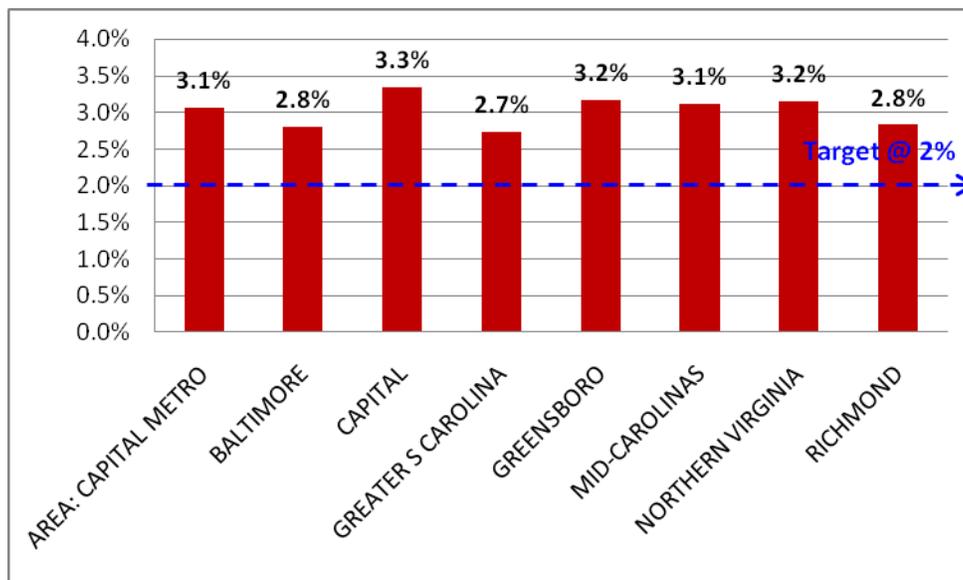
Report Title	Report Number	Final Report Date	Report Results
<i>Fort Worth District Equipment Maintenance</i>	DA-AR-08-009	8-29-2007	The audit determined the Fort Worth District generally met targets for preventive maintenance of letter mail processing equipment (MPE); however, opportunities existed to increase preventive maintenance completion rates to meet national standards at three of the district's five mail processing sites. In addition, excessive pieces at risk and mailpiece rejects indicated opportunities to increase equipment performance to meet operational targets. Management concurred with our finding and recommendations.
<i>Philadelphia Metropolitan District: Overall Equipment Effectiveness</i>	DA-AR-09-003	1-14-2009	The Philadelphia Metropolitan District did not meet targets for daily and weekly preventive maintenance of MPE. In addition, excessive pieces at risk and mailpiece rejects indicated opportunities to increase equipment performance. Addressing these issues at mail processing sites could have lowered costs by an additional \$5 million for the year ending June 30, 2008, and would lower mail processing costs by \$10 million over the next 2 years. Management concurred with our finding and recommendations.

APPENDIX B: DETAILED ANALYSIS

Pieces at Risk

In March 2007, the Postal Service established “At-Risk and Out-of-Sequence Goals.” Achieving these goals is critical for Postal Service performance and cost management success. As shown in Chart 1, each district in the Capital Metro Area exceeded the DBCS pieces at risk target of 2 percent of total pieces handled.

Chart 1. Capital Metro Area Mailpieces at Risk

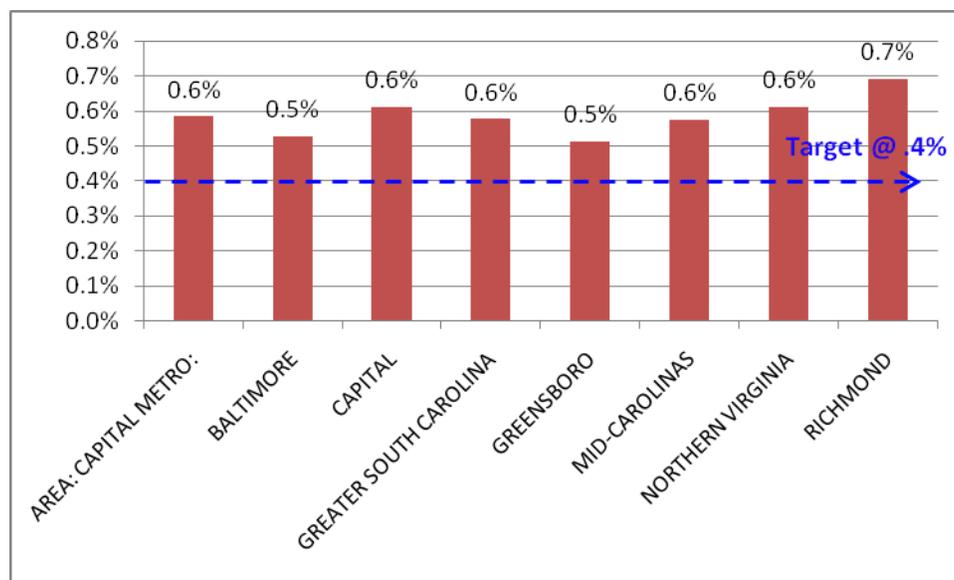


Source: MIRS 10/1/2007 – 9/30/2009

Postal Service operational standards also call for limiting DBCS DPS mailpiece rejects⁴ to approximately 0.4 percent of total pieces handled. As shown in Chart 2, each district in the Capital Metro Area also exceeded this target.

⁴ The costs of processing mailpiece rejects at plants were captured under a prior OIG report. Therefore, our analysis and monetary impact calculation was based on second pass DPS mailpiece rejects which are processed manually at the delivery units.

Chart 2. Capital Metro Area DPS Mailpiece Rejects



Source: Enterprise Data Warehouse/End of Run 10/01/07 – 9/30/2009

Causes for Excessive Pieces At Risk and Mailpiece Rejects

Postal Service policies set standards for maintaining and effectively operating equipment. MMOs outline the preventive maintenance procedures districts must perform. Operational standards and guides give instructions for increasing productivity, reducing missorted mail, and controlling costs. According to MMO-044-07, proper maintenance and operational procedures will result in reduced jams and unexpected machine malfunctions, significantly reducing pieces at risk. None of the 9 plants visited⁵ in the Capital Metro Area demonstrated that electronic maintenance technicians or maintenance supervisors were knowledgeable of the standards to reduce pieces at risk. This contributed to equipment adjustments that resulted in excessive pieces at risk and mailpiece rejects. Finally, supervisors did not perform the daily preventive maintenance inspections (MMO-013-05) to ensure maintenance quality.

⁵ We conducted site visits at the following Capital Metro plants; Merrifield Processing and Distribution Center (P&DC), Dulles P&DC, Richmond P&DC, Charlotte P&DC, Ashville P&DC, Greenville P&DC, Hickory P&DF, Suburban MD P&DC, and Columbia P&DC.

Opportunity to Lower Mail Processing Costs

As shown in Chart 3, the Capital Metro Area has the opportunity to lower mail processing costs by minimizing pieces at risk and subsequent rejects. Excessive machine DPS mailpiece rejects contribute to higher processing costs, because the rejected mailpieces are processed manually at the delivery units. For the period ending September 30, 2009, the cost per hour to manually process letter mailpieces was \$39.35⁶. Recognizing the tolerance for rejects, the cost of excessive DPS mailpiece rejects for FY 2008 and FY 2009 totaled \$1,011,280 for the Capital Metro Area. Since these costs are also avoidable in the next 2 years, we are claiming \$1,079,676 as funds put to better use.

Chart 3. Capital Metro Area: Financial Impact of DPS Mailpiece Rejects

District	Number of Machines	Excess Machine Rejects	FY 2008 Cost of Excess DPS Rejects	FY 2009 Cost of Excess DPS Rejects
Baltimore	78	2,478,453	\$73,865	\$37,451
Capital	69	4,443,374	112,097	88,491
Greater South Carolina	50	3,261,247	102,849	43,342
Greensboro	66	2,120,225	72,293	22,477
Mid-Carolinas	50	2,754,210	84,392	39,194
Northern Virginia	66	4,053,580	120,845	61,215
Richmond	59	3,386,627	87,720	65,049
Grand Total	438	22,497,716	\$654,061	\$357,219
Total Unrecoverable Questioned Costs ⁷				\$1,011,280
Funds Put to Better Use ⁸ (2 Years)				\$1,079,676

⁶ The hourly labor rate for a fully loaded city carrier is \$37.45 for FY 2008 and \$39.35 for FY 2009.

⁷ Unrecoverable costs that are unnecessary, unreasonable, or an alleged violation of law or regulation.

⁸ Funds that could be used more efficiently by implementing recommended actions. Labor rate escalated by 1.3 percent for FY 2010 and FY2011.

APPENDIX C. MANAGEMENT'S COMMENTS

VICE PRESIDENT
CAPITAL METRO AREA OPERATIONS



February 5, 2010

LUCINE M. WILLIS
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report – Capital Metro Area: Reducing Pieces At Risk
(Report Number DA-AR-10-DRAFT)

The Capital Metro Area has reviewed and concurs with the general findings and recommendations of the OIG audit team. We agree in principle that a monetary impact exists and commit to capturing potential savings through implemented efficiencies. We also agree that this report and management's response do not contain information that may be exempt from disclosure under the FOIA.

Recommendation #1: Instruct electronic maintenance technicians to adhere to Maintenance Management Order MMO-044-07 when diagnosing Delivery Bar Code Sorter pieces at risk.

Response: Management agrees with this recommendation. Please see the attached communication to the field dated February 4, 2010, instructing plant Maintenance to adhere to MMO-044-07 when diagnosing Delivery Bar Code Sorter pieces at risk.

Recommendation #2: Instruct Delivery Bar Code Sorter operators to follow letter mail operational standards for quality.

Response: Management agrees with this recommendation. All DBCS operators have completed the necessary DBCS operator training to be in compliance with the most recent OSHA requirement. This training was completed on January 8, 2010.

Recommendation #3: Require that maintenance supervisors ensure preventive maintenance routines are completed in accordance with Maintenance Management Order MMO-013-05.

Response: Management agrees in principal with this recommendation. MMO-013-05 refers to operational maintenance performed by maintenance technicians. Please see attached instructions communicated February 4, 2010 to Senior Plant Managers to ensure that processes and procedures are in place to improve DBCS At Risk performance.

Please contact Thomas Rabicki, Area Manager Maintenance Operations at 301-548-1448 if you have any questions.


Jerry D. Lane

Attachment

cc: Sally K. Haring, Acting Manager, Corporate Audit and Response Management
CARMManager@USPS.gov
Audittracking@uspsoip.gov

MAILING ADDRESS:
16501 SHADY GROVE ROAD
GAITHERSBURG, MD 20898-9998
301 548-1410
FAX: 301 548-1434

VICE PRESIDENT
CAPITAL METRO AREA OPERATIONS



February 4, 2010

SENIOR PLANT MANAGERS

SUBJECT: Pieces At Risk Improvement

Throughout Fiscal Year 2009, the Office of the Inspector General (OIG) conducted audits regarding the opportunities to reduce DBCS Pieces At Risk. The primary component of mailpieces at risk is rejected mail that results in manual rehandling.

The OIG concluded that Capital Metro Area processing plants did not achieve the pieces at risk target due to electronic technicians and maintenance supervisors being unaware of the Maintenance Management Order (MMO) used to diagnose and reduce DBCS pieces at risk. In addition, not all DBCS staff was properly trained, and maintenance supervisors did not ensure preventive and operational maintenance routines were completed properly to bring at-risk pieces within operational quality standards.

As a result of these findings, I am requesting that each District Manager ensure compliance with MMO-044-07 and MMO-013-05 (attached). MMO-044-07 focuses only on maintenance at-risk responsibilities, while keeping in mind that overall performance is a shared responsibility. MMO-013-05 outlines the DBCS operational checks to be conducted by maintenance technicians during live mail runs. Maintenance Managers must ensure:

- Responsible maintenance personnel are aware of and comply with the above MMOs.
- Operational and preventive maintenance checklists are properly completed.
- Corrective measures are implemented in a timely manner.

Plant Managers must ensure that all DBCS personnel are properly trained and fully understand pieces at risk sufficient to bring performance within operational quality standards.

The Area Maintenance staff will continue to review and monitor at risk performance to provide guidance and protect service.

Jerry D. Lane

Attachments

MAILING ADDRESS:
16501 SHADY GROVE ROAD
GAITHERSBURG, MD 20898-9998
301 548-1410
FAX: 301 548-1434