



February 6, 2009

DELORES J. KILLETTE
VICE PRESIDENT AND CONSUMER ADVOCATE

SUBJECT: Audit Report – External First-Class Measurement System
(Report Number NO-AR-09-003)

This report presents the results of our audit of the External First-Class (EXFC) measurement system program (Project Number 08XG038NO000). Our objective was to determine if the EXFC measurement system internal controls reasonably protect the integrity of the EXFC measurement process. This audit resulted from a U.S. Postal Service Office of Inspector General (OIG) investigation that found a Postal Service manager had intentionally and successfully identified test mailpieces and “Reporters”¹ and attempted to use the information to influence EXFC measurement results. This audit addresses operational risk. See [Appendix A](#) for additional information about this audit.

Conclusion

We concluded the EXFC measurement system’s internal controls reasonably protect the integrity of the EXFC measurement process. However, it is important to understand that our audit of these internal controls does not provide absolute assurance of the absence of fraud or improper actions by Postal Service employees, due to the nature of evidence and the characteristics of such activities.

Internal Controls

We examined internal controls relating to test mail appearance, induction, recruiting and training, computer systems, breaches, and the EXFC contractor and found these controls reasonably protected the integrity of the EXFC measurement system. Prior to our review, and as a result of the OIG investigation, management determined there were two internal computer system control weaknesses. These weaknesses were subsequently corrected. See [Appendix B](#) for additional information.

¹ Reporters account for the receipt of test mailpieces at their residence, business or Post Office Box.

Criteria

Handbook F-23, Section 2-9, *Accounting Policy Reference*, states that the Postal Service is responsible for establishing and maintaining a system of management and accounting controls. Postal Service contract 102592-02-B-0343 describes what the Postal Service requires for the EXFC service performance program. These requirements reflect the Postal Service's internal control procedures.

Cause

The computer control weaknesses occurred because management and Mail History Tracking System (MHTS) representatives did not ensure information contained in the MHTS and the Transit Time Measurement System (TTMS) could not be used to identify test mailpieces and EXFC Reporters.

Effect

Internal control deficiencies could allow Postal Service employees to skew service scores and compromise the integrity of the EXFC measurement system. Our review of Postal Service EXFC data trends found no dramatic changes in service scores either nationally or in the Massachusetts District where the breach occurred (see Table 1). Sudden or dramatic changes in service scores could be an indication that the EXFC system has been compromised. See [Appendix B](#) for our detailed analysis of this topic.

	Overnight		2-Day		3-Day	
	Massachusetts	National	Massachusetts	National	Massachusetts	National
FY 2005	94.59	95.20	90.13	90.83	84.77	87.25
FY 2008	96.16	96.47	92.67	94.07	89.95	91.66
Change	1.66%	1.33%	2.82%	3.57%	6.11%	5.05%

We recommend the Vice President and Consumer Advocate:

1. Ensure, through periodic reviews, that External First-Class (EXFC) information contained in reports and computer systems cannot be used to identify test mailpieces or in any way compromise the integrity of the EXFC measurement system.

Management's Comments

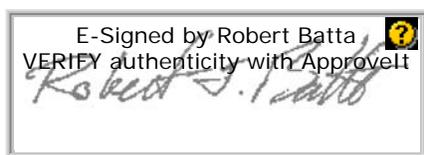
Management agreed with our findings and recommendation. The Vice President and Consumer Advocate directed the Manager, Customer Knowledge Management, to conduct bi-annual checks of systems associated with the EXFC measurement system

and reports to determine if there is information that may result in breaches. If management finds deficiencies, they will immediately correct them. See [Appendix C](#) for management's comments in their entirety.

Evaluation of Management's Comments

Management's comments are responsive to the recommendation and their actions should correct the issue identified in the report.

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



Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

Attachments

cc: Patrick R. Donahoe
Maryellen J. Clarke
Vanessa M. Martin
Katherine S. Banks

APPENDIX A: ADDITIONAL INFORMATION

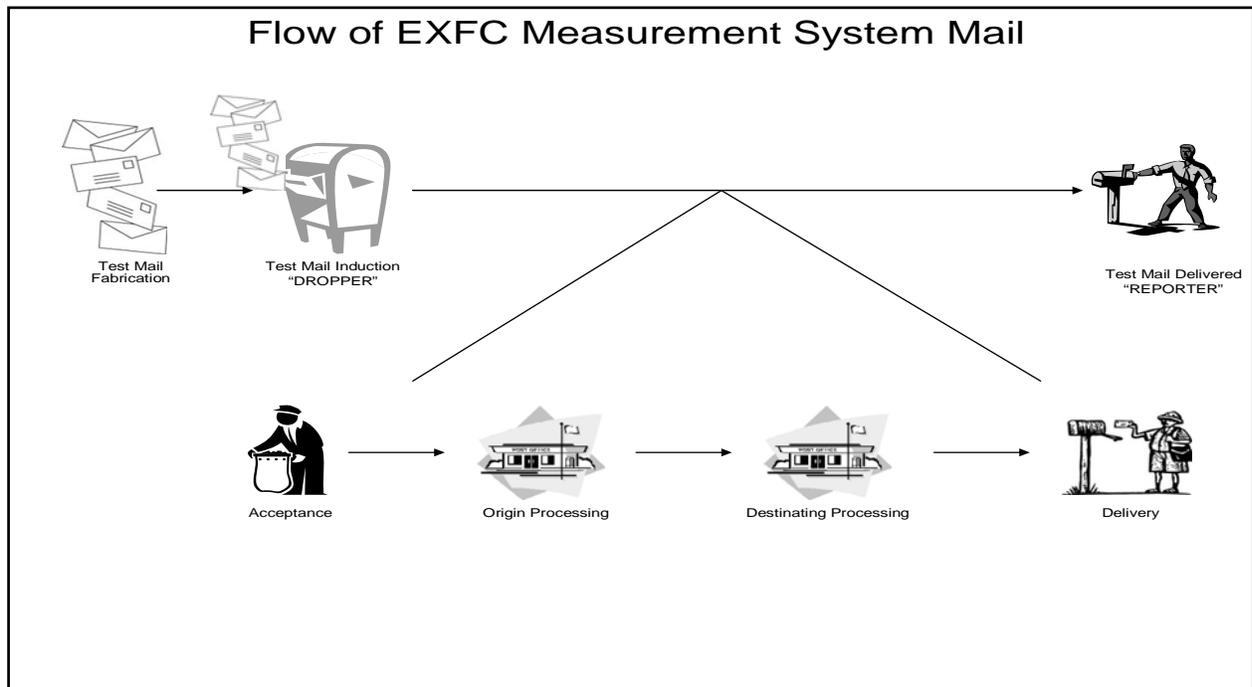
BACKGROUND

Recognizing its statutory requirement and its own commitment to improving service, the Postal Service measures and reports on its effectiveness in meeting established delivery standards for various classes including single piece First-Class Mail®. The objective is to measure service performance from the customer's perspective — to produce accurate, independent, and externally generated data about whether the Postal Service delivers mail within its allotted time, from the time it is dropped in a collection box until it reaches its destination. Management compares the resulting performance data to Postal Service delivery standards that are based on the date mailed, the date of delivery, and the geographic locations involved.

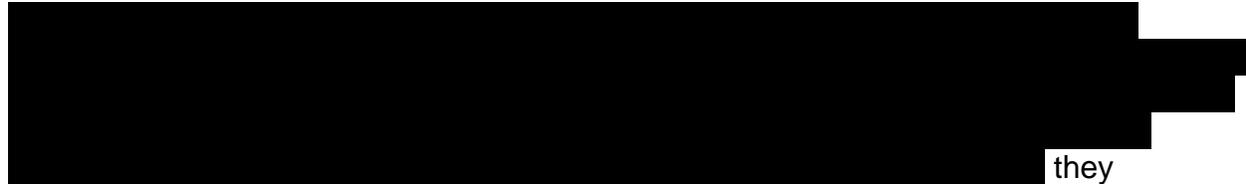
To do its comparison, the Postal Service measures service performance through its TTMS. [REDACTED]

[REDACTED]. The Postal Service selected these areas based on geography and volume density. The test mailpieces represent ZIP Code areas from which 90 percent of First-Class Mail volume originates, and to which 80 percent of it destinates.

The EXFC measurement process is as follows. First, mailpieces are fabricated and made into test mail. Second, the "Droppers" place the test mail into collection receptacles and report the time and date in the EXFC measurement system. Next, the mail is accepted, processed, and delivered by the Postal Service. The delivered mail is received either at a home, business address, or Post Office Box by "Reporters" who, in turn, report the time and date of receipt in the EXFC measurement system. See the EXFC flow diagram below for a process overview.



It is essential to the mission of measuring performance through this non-biased approach that the internal controls ensure Reporters, Droppers, and the test mail remain anonymous. Any preferential treatment circumvents the intent of the program.



they

deactivated the Reporters and excluded their test mailpieces from the measurement process. The manager was able to identify the Reporters because their monthly newsletter was mailed from the same processing and distribution center in sequential processing number order and that pattern, in combination with the manager's intent and access to the MHTS, was enough for him to develop a list of suspected Reporters' addresses. As a result, the newsletter is now mailed through a mail consolidator.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to determine if the EXFC measurement system internal controls reasonably protect the integrity of the EXFC measurement process.

We based our examination of the EXFC measurement system on whether component internal controls maintain confidentiality as outlined in Table 2. We reviewed documentation and related written material on the EXFC measurement system; documented the data collection procedures and internal controls for the system; and obtained detailed explanations of the system in interviews with Postal Service officials.

We also examined some test mailpieces for authenticity of appearance. Finally, we reviewed the service performance scores to determine if there was anything abnormal that might indicate a compromise of the EXFC measurement system.

We conducted this performance audit from July 2008 through February 2009 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 December 5, 2008, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

The OIG and the Government Accountability Office (GAO) have issued three reports in recent years related to this topic.

Report Title	Report Number	Final Report Date	Report Results
<i>USPS Delivery Performance Information</i>	GAO-06-733	July 2006	(1) The Postal Service has delivery standards for major types of mail, but some have not been updated to reflect changes in how mail is prepared and delivered. (2) The Postal Service does not measure and report its delivery performance for most types of mail; therefore, it falls short of reporting on its overall performance. (3) Progress to improve delivery performance information has been slow and inadequate despite numerous Postal Service and mailer efforts.

Report Title	Report Number	Final Report Date	Report Results
<i>Critical Factors and Best Practices for Managing External First-Class Mail Measurement Systems</i>	TD-AR-02-001	February 28, 2002	<p>The critical factors identified included commercial airline performance, mail preparation, condition and arrival times, adequate facilities, and management stability and staffing. Officials also offered practices that were implemented in an effort to control the factors affecting EXFC scores.</p> <p>We found the Postal Service has no formal mechanism for identifying, assessing, and sharing best practices affecting service standard scores on a nationwide basis.</p>
<i>External First-Class Measurement System</i>	DS-AR-00-001	March 27, 2003	<p>We concluded that, although the program satisfied several business concerns and is a useful mechanism for improving service performance, the system could be improved if:</p> <p>(1) It included all ZIP Code areas in the selection process. Therefore, the results could be projected across the entire population of ZIP Codes. As currently structured, statistical projections can be made only to the test domain.</p> <p>(2) Management reduced the sample size to the minimum size necessary to obtain projected results. The Postal Service could save approximately \$9.6 million over a 5-year period by reducing the sample size by one-third.</p> <p>(3) The system measured the mail volume flow of many modes of First-Class Mail.</p>

APPENDIX B: DETAILED ANALYSIS

Test Mail Appearance

We found that test mailpieces did not carry distinguishing marks and could not be identified from the wide variety of actual mail the public sends. The test mail kits we examined consisted of letters, flats, and postcards of different sizes, colors, weights, addressing styles (machine printed and handwritten addresses), and postage (metered and stamped). Management prepared test mailpieces in accordance with the Postal Service's *Domestic Mail Manual* for First-Class Mail and made them compatible with Postal Service automation and mechanization equipment.

To help ensure the test mail is not identifiable based on appearance, the contractor performs weekly address verification against both Postal Service-approved hygiene software and Postal Service addressing standards. In addition, they conduct extensive checks on actual test mailpieces after fabricating it. The contractor verifies that test mail is produced according to kit specifications, the Optical Character Reader can read the addresses, barcodes are legible, windowed envelopes satisfy tap test and reflectivity requirements, and stamps and labels are firmly affixed and properly placed on envelopes.

Test Mail Induction

A number of internal control procedures for mailing, or "inducting," test mail help prevent Droppers from developing a pattern that personnel might notice and use to identify the test mailpieces or the program's participants.



[REDACTED]

Recruiting and Training Program Participants

A direct mail campaign is used to recruit Reporters and Droppers, and the controls over these individuals appear comprehensive. We found the screening process for program participants effectively allows the EXFC contractor to determine if candidates meet the general qualifications, such as being available to receive the mail on a consistent basis and not being affiliated with the Postal Service or one of its competitors. Similarly, the training guide and the one-on-one follow up training session provide the tools and procedural information participants need to understand and be able to perform their duties. For example, the training guide explains how, when, and where the test mail should be inducted; and specifies that the participants need to be available to check for their mail Monday through Saturday on a consistent basis. Participants also receive specific instructions to keep their involvement with the testing strictly confidential. The participants' performances are monitored through quality checks and data analysis throughout the process of identifying and addressing discrepancies and data issues. In addition, they are subject to quarterly performance reviews and in-person observations when warranted.

Breaches

We found that if test mailpieces are identified, controls are in place to minimize any negative effects. Management thoroughly investigates incidents involving breaches so it can remove the affected data, even post-breach. The review process involves understanding how a breach occurred and the extent of the damage. In the end, management decides whether they need to further validate, change or cancel the data and whether they need to remove the Droppers or Reporters.

[REDACTED]

- Furthermore, management has instructed employees to report to the Consumer Affairs Office if they identify Droppers or Reporters. The contractor performs extensive data analysis of suspicious data such as zero bundles,² late bundles, and reported bundle information that is contrary to information reported about other bundles in a performance cluster. As an added precaution, a delivery service other than the Postal Service delivers the bundles and other program materials to Droppers and Reporters.

Computer Systems

Between March and August 2007, management corrected the two major internal control weaknesses that allowed identification of the test mailpieces. One of the control weaknesses was the diagnostic information available through the MHTS³ that allowed identification of test mailpieces based on the subscriber identification number. Management has since masked the data.

The second control weakness was that the Enterprise Data Warehouse (EDW) and contractor's EXFC reports contained detailed information about test mailpieces that did not meet the service standards. For example, the Reporters' Type Performance Report and the City Matrix Report specified whether the Reporter was a business, household, box holder, or non-box holder and narrowed the EXFC failure to a small grouping of delivery zones, respectively. Postal Service personnel could use the information in conjunction with the Service Browser – Service Failure Report contained in MHTS to identify test mailpieces. The Postal Service has subsequently corrected this control weakness and this information no longer is available.

EXFC Contractor

The Postal Service also evaluates the contractor's work at least once a year to ensure adherence to the contract requirements. The Postal Service's evaluation covers the scope of all operations the contractor conducts for the EXFC service performance program. This includes, but is not limited to, the verification of sample selection, test mail characteristics, mail induction, data analysis, and Droppers' and Reporters' performance. The Postal Service discusses the outcome of its evaluation with the contractor to determine the appropriate remedies within the scope of the contract.

² A bundle in which all of the overnight test mailpieces fail.

³ An online application that provides diagnostic tracking of individual mailpieces. MHTS is primarily intended to find correctable sorting and maintenance problems on Postal Service automated equipment.

Service Score Trends

Internal control deficiencies could allow Postal Service employees to skew service scores⁴ and compromise the integrity of the EXFC measurement system. Our review of Postal Service EXFC data trends since FY 2005 found there have been no dramatic changes in service scores either nationally or at the Massachusetts District where the breach occurred. Sudden or dramatic changes in service scores could indicate a compromise of the EXFC measurement system. As reflected in Table 3, we found that from FY 2005 to FY 2008, national overnight and 2- and 3-day scores have increased approximately 1.33 percent, 3.57 percent, and 5.05 percent, respectively. In comparison, as shown in Table 3, the Massachusetts District's overnight and 3-day scores increased slightly more than the national average (1.66 percent versus 1.33 percent, and 6.11 percent versus 5.05 percent, respectively). The 2-day score increase was not as high as the national average (2.82 percent versus 3.57 percent).

	Overnight		2-Day		3-Day	
	Massachusetts	National	Massachusetts	National	Massachusetts	National
FY 2005	94.59	95.20	90.13	90.83	84.77	87.25
FY 2008	96.16	96.47	92.67	94.07	89.95	91.66
Change	1.66%	1.33%	2.82%	3.57%	6.11%	5.05%

In addition, examination of service scores for each of the 463 ZIP Codes by quarter from FY 2005 to FY 2008 did not show any dramatic changes. (See Table 4.)

⁴ Because EXFC test mailpieces represent a sample, each test mailpiece has an impact on the projections to the total mail volume. Therefore, any type of manipulation through identification of test mailpieces could affect service scores, even though the number of mailpieces may be relatively small in relation to total mail volume.

Table 4: EXFC Destinating Overnight, 2- Day and 3-Day Percentage Scores By Quarter						
	Overnight		2-Day		3-Day	
	Massachusetts	National	Massachusetts	National	Massachusetts	National
Q1 2005	94.66	94.93	90.28	90.07	84.01	85.52
Q2 2005	94.11	95.09	89.47	89.76	79.53	83.17
Q3 2005	95.03	95.57	89.66	91.95	87.45	90.15
Q4 2005	94.54	95.21	91.09	91.48	87.79	89.80
Q1 2006	93.99	94.28	88.99	87.89	81.10	82.89
Q2 2006	94.49	94.91	90.82	89.31	86.92	86.25
Q3 2006	94.97	95.32	91.17	91.39	89.59	90.78
Q4 2006	94.49	95.43	91.72	91.71	87.10	90.24
Q1 2007	94.05	95.07	91.63	90.79	82.71	86.17
Q2 2007	94.45	95.31	91.30	91.32	85.64	87.99
Q3 2007	96.00	95.96	91.78	93.28	89.43	91.45
Q4 2007	95.87	96.12	93.01	93.99	91.03	92.62
Q1 2008	95.63	95.99	89.47	92.67	85.23	88.19
Q2 2008	95.88	96.40	93.72	94.20	91.37	91.87
Q3 2008	96.80	96.84	95.10	95.24	91.60	93.67
Q4 2008	96.32	96.67	92.39	94.19	91.65	92.94

Q – Quarter

APPENDIX C: MANAGEMENT'S COMMENTS

DELORES J. KILLETTE
Vice President
and Consumer Advocate



January 22, 2009

LUCINE WILLIS, DIRECTOR
AUDIT OPERATIONS, OFFICE OF INSPECTOR GENERAL

SUBJECT: Draft Audit Report – External First-Class Measurement System
(Report Number NO-AR-09-DRAFT)

Thank you for the opportunity to review and comment on the subject draft audit report.

We agree with the findings in the draft report that the External First-Class Measurement (EXFC) System's internal controls reasonably protect the integrity of the EXFC measurement process.

Recommendation:

Ensure through periodic reviews, that EXFC information contained in reports and computer systems cannot be used to identify test mailpieces or in any way compromise the integrity of the EXFC measurement system.

Response:

We agree with the recommendation. Maryellen Clarke, Manager, Customer Knowledge Management will conduct bi-annual checks of all systems and reports to determine if there are systemic issues that may result in breaches. If deficiencies are identified they will be corrected immediately.

The following sections of the draft report contain information which is exempt from disclosure pursuant to FOIA Exemption 3. Exemption 3 provides that agencies may withhold records that are exempted from disclosure by another statute which, "(B) establishes particular criteria for withholding or refers to particular types of matters to be withheld." 5 U.S.C. § 552(b) (3). Section 410(c) (2) of Title 39, U.S. Code, provides that "information of a commercial nature, including trade secrets, whether or not obtained from a person outside the Postal Service, which under good business practice would not be publicly disclosed" is exempt from the disclosure requirements of the FOIA.

- [REDACTED]
- [REDACTED]
- [REDACTED]


Delores J. Kilette

cc: James Ballard
Katherine Banks

475 L'ENFANT PLAZA SW
WASHINGTON DC 20280-2200
202-268-2282
Fax: 202-268-5531
www.usps.com