



September 23, 2010

MARK A. MARTINEZ
DISTRICT MANAGER, MID-AMERICA DISTRICT

SUBJECT: Management Advisory Report – The Effects of the Flats Sequencing System on Delivery Operations – Mid-America District
(Report Number DR-MA-10-001)

This report presents the results of our review of the Flats Sequencing System (FSS) (Project Number 10XG006DR002). Our objective was to evaluate the effects of the FSS on delivery operations and operating costs at selected Mid-America District delivery units. This self-initiated audit addresses operational risk. See [Appendix A](#) for additional information about this audit.

In October 2006, the U.S. Postal Service recommended approval to acquire, develop, purchase, and deploy 100 FSS machines at 33 sites. FSS machines sort flat-sized mail such as large envelopes, newspapers, catalogs, circulars, and magazines into delivery walk sequence at high speeds and at a much higher productivity rate than the manual process. In full deployment, the FSS is expected to produce annual operational savings for the Postal Service. Delivery units should achieve this savings by eliminating manual carrier casings and reducing the number of routes, resulting in reduced workhours.

Conclusion

The six Mid-America District delivery units¹ reviewed have improved delivery operations during FSS full production. These units cut operating costs by \$605,788 and reduced city carrier office hours, manual distribution clerk workhours, and city carrier routes. Although the FSS improved delivery operations, these delivery units received over 8.7 million flat mailpieces that were not processed on FSS. Approximately 2 million of these mailpieces were not carrier routed² and required manual sorting and

¹ The six Mid-America District delivery units reviewed were: [REDACTED]

² These unworked pieces must be manually sorted by the clerks and cased by the carriers. The carrier-routed mailpieces are only handled by the carriers.

casing to put them in delivery walk sequence. This occurred because this mail did not meet flat mail automation requirements.³ See [Appendix B](#) for our detailed analysis of this topic.

As a result, the Postal Service missed the opportunity to further reduce workhour costs and, consequently, we estimated incurred unrecoverable questioned costs of approximately \$145,515 for fiscal year (FY) 2010. See [Appendix C](#) for our monetary impact.

We recommend the district manager, Mid-America District:

1. Continue to collaborate with business mailers to ensure flat mailpieces meet automation requirements and reduce the amount of unworked flat mail sent to delivery units.

Management's Comments

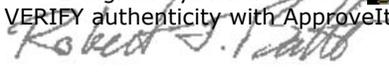
Management agreed with the finding, recommendation, and monetary impact. Management stated they will work with the Business Service Network (BSN) to identify mailings and mailpieces that could be altered to meet automation requirements. In addition, management will ensure the BSN periodically sends updates on the criteria of flat automation compatibility to their mailing community. Further, management stated these actions will help further reduce workhour and future-incurred unrecoverable questioned costs. Finally, management stated there will be no estimated completion date for this corrective action, because this will be an ongoing process. See [Appendix D](#) 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 recommendation and management's corrective actions should resolve the issue identified in the report. In subsequent discussions, management agreed with the unrecoverable questioned costs of \$145,515.

³ Automation flats are not more than 11-1/2 inches long or more than 6-1/8 inches high, or more than 1/4 inch thick in size. The piece should be able to bend at least 1 inch vertically without being damaged. Flat-sized mailpieces must be uniformly thick so that any bumps, protrusions, or other irregularities do not cause more than a 1/4-inch variance in thickness. Mailers using polywrap film or similar material to enclose or cover flat-sized mailpieces must apply the cover in the correct direction and ensure the label is readable.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Rita F. 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
Steven J. Forte
Dean J. Granholm
Elizabeth A. Schaefer
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Alan B. Catlin
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Corporate Audit and Response Management

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

In October 2006, the Postal Service approved a Phase I Decision Analysis Report (DAR) to develop, purchase, and deploy 100 FSS machines at 33 sites. The FSS machines sort flat-sized mail such as large envelopes, newspapers, catalogs, circulars, and magazines into delivery sequence at high speeds and at a much higher productivity rate than the manual process. FSS-processed mail will arrive at the delivery unit in walk sequence order, ready for delivery by the carrier with no additional mail movement or manual sorting required.

The Postal Service had a difficult FY 2009. Mail volume declined by approximately 25 billion pieces. Due to declining mail volume of catalogs and Periodicals mail, the Postal Service decided to add nearly 300 ZIP Codes™ to the list of areas that FSS machines will serve. Postal Service Headquarters officials will spread the 100 machines in Phase I of the FSS program among 42 city locations — including new sites in Houston, TX; Philadelphia, PA; Charlotte, NC; and Minneapolis and St. Paul, MN — rather than among the 33 original city locations.

The FSS is a critical component of the Postal Service's strategy to contain costs through automating the flat mail stream. In full deployment, the FSS is expected to produce annual operational savings of \$613 million. These savings should result when delivery units can eliminate the requirement for mail carriers to manually case flat mail. Since mail clerks would no longer need to manually sort flats, there should be a reduction in clerks' workhours at delivery units. Full production of FSS began in June 2009 and 80 delivery units are currently receiving FSS-processed mail.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to evaluate the effects of the FSS on delivery operations and operating costs at selected Mid-America District delivery units. Due to staggered FSS full production testing start dates, the selected delivery units reviewed were integrated into the process during different months of FYs 2009 and 2010. Our audit scope covered February 2009 to May 2010, which includes the performance period prior to the units receiving FSS-processed mail and the performance period during which the reviewed units received FSS-processed mail.⁴ See Table 1.

⁴ The scope limitations are due to differences in FSS production start dates for each delivery unit.

Table 1. FSS Review Periods

FSS Site	Performance Months Prior to Receiving FSS Mailpieces	Performance Months of Receiving FSS Mailpieces in FY 2010
[REDACTED]	April 2009 – September 2009	October 2009 – May 2010
[REDACTED]	February 2009 – July 2009	August 2009 – May 2010
[REDACTED]	April 2009 – September 2009	October 2009 – May 2010
[REDACTED]	April 2009 – September 2009	October 2009 – May 2010
[REDACTED]	April 2009 – September 2009	October 2009 – May 2010
[REDACTED]	March 2009 – August 2009	September 2009 – May 2010

Source: Postal Service Mid-America District Management

To accomplish our objective, we:

- Statistically selected five⁵ FSS delivery unit locations in the Mid-America District. In addition, we reviewed the [REDACTED] as a request from district management.
- Reviewed operational issues throughout the district associated with delivery units receiving FSS-sequenced flat mail.
- Reviewed applicable documentation, policies, and procedures such as the FSS DAR, dated October 20, 2006; the approved *FSS Work Methods* Memorandum of Understanding between the Postal Service and the National Association of Letter Carriers, dated November 24, 2008; the *FSS Implementation Guide*, Version 1, dated May 2009; and the *Domestic Mail Manual*, Section 300, Commercial Mail Flats, dated May 2008.
- Extracted and analyzed data from the Enterprise Data Warehouse (EDW) Delivery Data Mart for cased and FSS mailpieces, city carrier office and overtime workhours, carriers returning after 5 p.m., managed service scans, and mail distribution clerk office hours.
- Extracted and analyzed Customer Service Delivery Reporting System (CSDRS) Mail Condition, Curtailed and Delayed Mail, and Management Comment reports to determine the tracking and status of the mail as it arrives at the delivery unit.
- Extracted and analyzed CSDRS mail performance indicators from the Web Executive Information System (WEBEIS).
- Extracted and analyzed eFlash data to determine delivery units' weekly operating reporting management system in delivery and mail processing.
- Conducted site visits at selected delivery unit locations.

⁵ Our sample included [REDACTED] delivery units.

- Interviewed Postal Service Headquarters, Western Area, and Mid-America District officials.

We conducted this review from February through September 2010 in accordance with the President’s Council on Integrity and Efficiency, *Quality Standards for Inspections*.⁶ We discussed our observations and conclusions with management officials on August 10, 2010, and included their comments where appropriate.

We extracted and analyzed data from EDW, CSDRS, and WEBEIS. We assessed the reliability of data such as delivery performance indicators, cased and FSS flat mailpieces, carrier and clerk workhours, and mail condition reports by interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

PRIOR AUDIT COVERAGE

The (OIG) has issued eight reports and the Government Accountability Office (GAO) has issued one report related to our objective in the last several years.

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<i>Flats Sequencing System Operational Issues</i>	DR-AR-10-005	7/1/2010	\$852,336	The report identified that Northern Virginia District delivery units have improved delivery operations with the FSS. These units’ improvements contributed to a 6 month cost reduction of \$196,271. However, we identified several FSS machines that were unavailable for several months and processing issues that negatively impacted delivery operations. Management agreed with the finding and recommendations.
<i>Flats Sequencing System on Delivery Operation – Northern Virginia District</i>	DR-AR-09-011	9/28/2009	None	The five selected Northern Virginia District delivery units improved in delivery operations during the initial 6 months of FSS testing. Flat volumes decreased by more than 50 percent during this testing period, so we could not determine how much of these operational gains were due to implementation of the FSS. We made no recommendations in this report.

⁶ These standards were last promulgated by the President’s Council on Integrity and Efficiency (PCIE) and the Executive Council on Integrity and Efficiency (ECIE) in January 2005. Since then, The Inspector General Act of 1978 as amended by the IG Reform Act of 2008 created the Council of the Inspectors General on Integrity and Efficiency (CIGIE), which combined the PCIE and ECIE. To date, the Quality Standards for Inspections have not been amended to reflect adoption by the CIGIE and, as a result, still reference the PCIE and ECIE.

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<i>Flats Sequencing System: First Article Retest Results</i>	DA-AR-09-012	9/4/2009	None	Although FSS machine performance has improved since the original test, the system failed to meet key statement of work (SOW) performance parameters. The Postal Service attributed FSS performance shortcomings to the lack of additional hardware and software solutions incorporated into the First Article Testing 2A system. Failure to meet SOW performance requirements would reduce forecasted savings and increase operational burdens. Management partially agreed with the finding and recommendation.
<i>Flats Sequencing System Contractual Remedies</i>	CA-AR-09-006	7/1/2009	\$7,733,522	This audit determined that management of the FSS contract process resulted in increased financial risk to the Postal Service. Management agreed with findings and recommendations 1 and 2 but only partially agreed with the finding and recommendation 3.
<i>Flats Sequencing System: Program Status</i>	DA-AR-09-001	12/23/2008	None	The report determined that program management was attentive to system performance and schedule risks. Management agreed with the finding and recommendation in this report.
<i>Management of Contract Changes – Flats Sequencing System</i>	CA-MA-09-002	12/1/2008	None	The report did not identify any unnecessary or inappropriate increased costs to the Postal Service because of changes to the FSS contract. Management agreed with the finding and recommendation in this report.
<i>Flats Sequencing System: Production First Article Testing Readiness and Quality</i>	DA-AR-08-006	6/4/2008	None	The report determined the Postal Service needed to focus greater attention on workload, the First Article Testing schedule, and critical deliverables. Management generally agreed with the finding and recommendation in this report.
<i>Flats Sequencing System Risk Management</i>	DA-AR-07-003	7/31/2007	None	The report determined that Postal Service Engineering needed to focus greater attention on risk management standards to ensure the significant risks associated with deployment of the FSS were adequately identified and managed. Management agreed with findings and recommendations 1 and 2, but disagreed with the findings and recommendations 3 and 4 of this report.

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<p><i>Mail Delivery Efficiency Has Improved, but Additional Actions Needed to Achieve Further Gains</i></p>	<p>GAO-09-696 7/15/2009</p>	<p>7/15/2009</p>	<p>None</p>	<p>The Postal Service has taken steps to deliver mail more efficiently, including adjusting delivery routes to reflect declining volumes and investing in more efficient mail-sorting technologies. This report addressed how the Postal Service monitors delivery efficiency, characteristics of delivery units that affect their efficiency, and the status and results of the Postal Service's actions to improve delivery efficiency, in particular FSS. We made no recommendations in this report.</p>

APPENDIX B: DETAILED ANALYSIS

Improvements in City Delivery

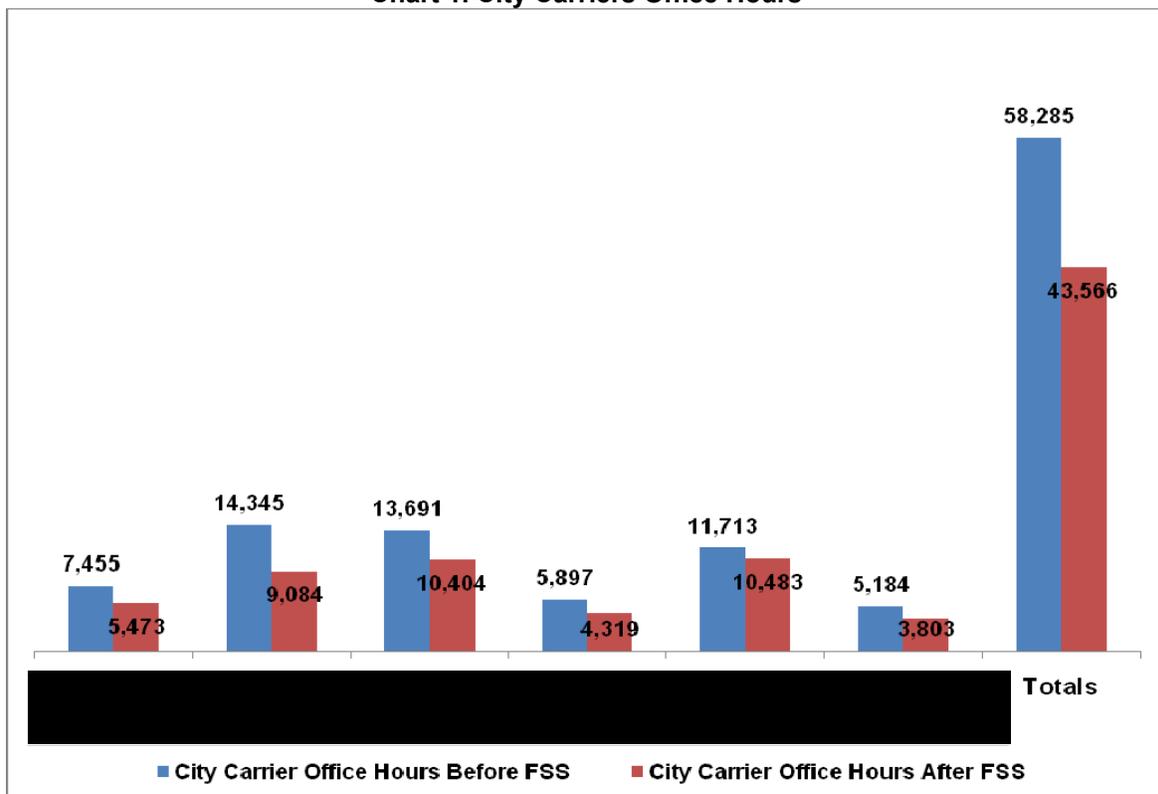
The selected Mid-America District delivery units improved their delivery operations and reduced operating costs during the initial 6 months of FSS full production. Specifically, we found reductions in:

- City carrier office hours.
- Manual distribution clerk workhours.
- City carrier routes.

City Carrier Office Hours

City carrier office hours declined at the selected units. In the 6 months prior to receiving FSS-processed flat mail, city carriers used 58,285 office hours. During the initial 6 months of receiving FSS-processed mail, the number of office hours declined to 43,566 — a reduction of 14,719 hours. According to delivery unit officials, the reductions were due to adjustments to carriers’ start times resulting from less time required to case flat mailpieces. See Chart 1.

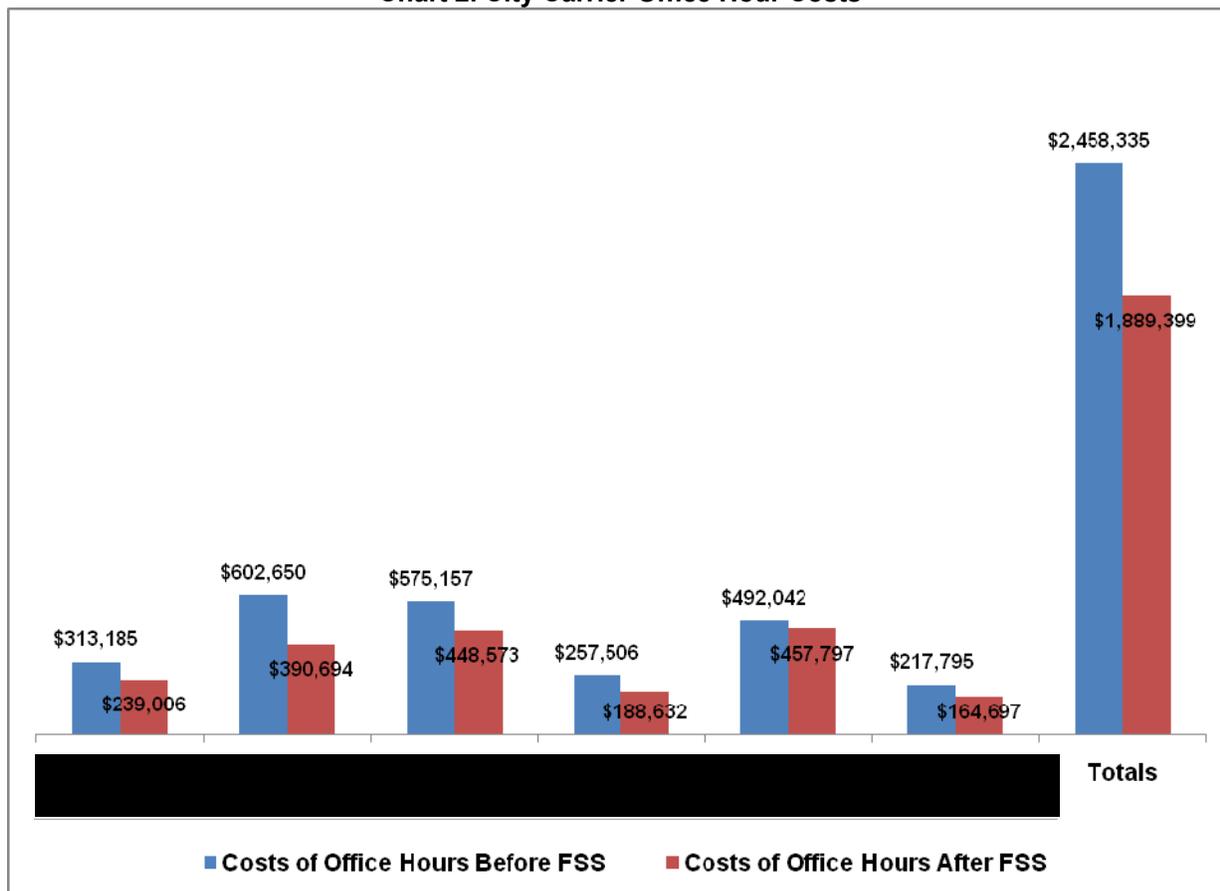
Chart 1. City Carriers Office Hours



Source: EDW

For the 6 months prior to units receiving FSS-processed mail, city carriers’ office hour costs were \$2,458,335. During the initial 6 months of receiving FSS-processed mail, the office hour costs declined to \$1,889,399, which resulted in a cost reduction of \$568,936. See Chart 2.

Chart 2. City Carrier Office Hour Costs

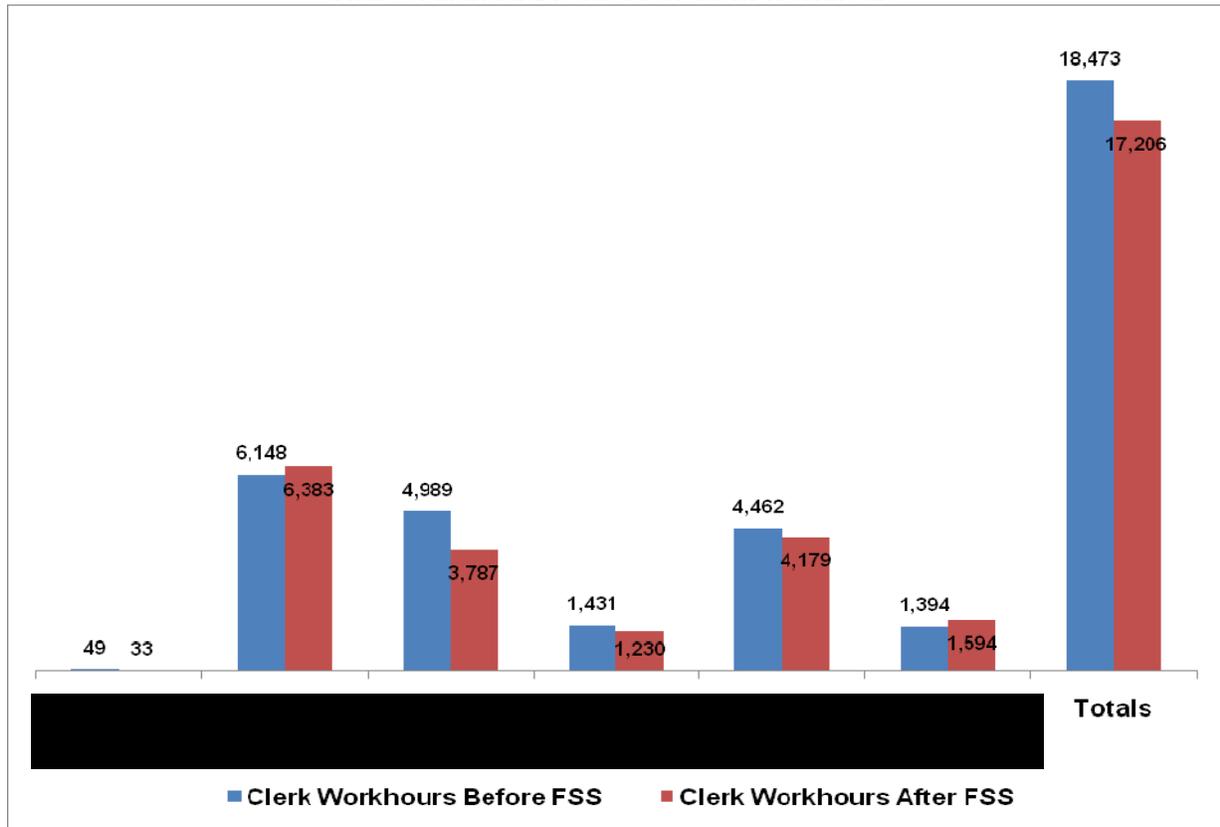


Source: EDW

[Manual Distribution Clerk Workhours](#)

The FSS environment caused a change in the manual distribution clerks’ workload. Manual distribution clerk workhours decreased by 1,267 hours. For the 6 months prior to units receiving FSS-processed mail, Manual Distribution clerks used 18,473 workhours to manually sort mail at the selected delivery units compared to the 17,206 workhours they used during the initial 6 months of receiving FSS-processed mail. See Chart 3.

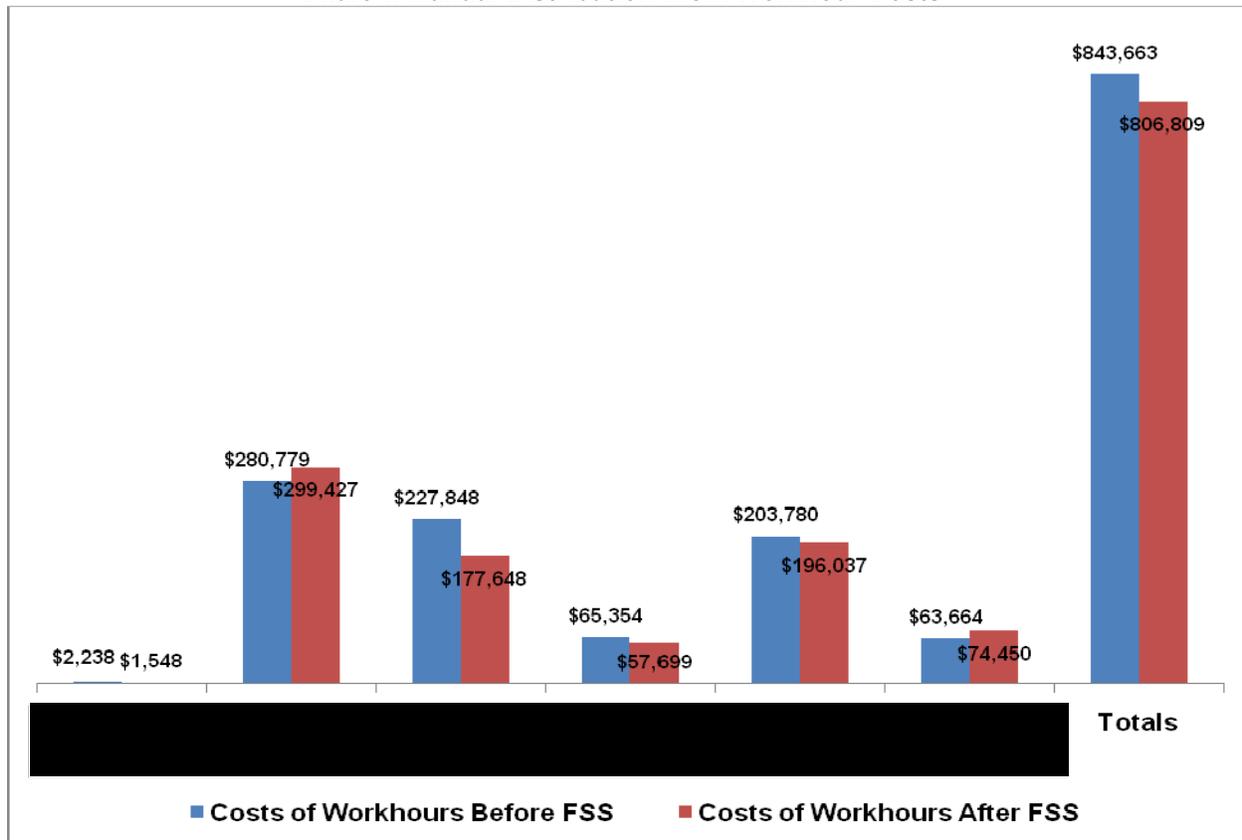
Chart 3. Manual Distribution Clerk Workhours



Source: EDW

For the 6 months prior to units receiving FSS-processed mail, manual distribution workhour costs were \$843,663 and during the initial 6 months of units receiving FSS-processed mail the workhour costs declined to \$806,809. This resulted in a cost reduction of \$36,854. See Chart 4.

Chart 4. Manual Distribution Clerk Workhour Costs



Source: EDW

City Carrier Routes

The delivery units receiving FSS mail will be the ultimate driver of the savings from FSS processing. The savings are a result of reductions in the number of routes based on reduced casing of flats from the FSS. For the selected delivery units receiving FSS-processed mail, management conducted route adjustments to reduce the number of routes from 174 to 162, resulting in the elimination of 12 city carrier routes. See Table 2.

Table 2. FSS Route Adjustments for City Delivery

Delivery Unit	Total City Routes Before Rout Adjustments	Total City Routes After Route Adjustments
[Redacted]	24	23
[Redacted]	34	29
[Redacted]	36	34
[Redacted]	18	17
[Redacted]	42	40
[Redacted]	20	19
Totals	174	162

Source: Postal Service Mid-America District Management

Unworked Flat Mailpieces

These delivery units received approximately 22.9 million flat mailpieces,⁷ approximately 8.7 million of which could not be processed on FSS machines (see Table 3). Of the 8.7 million mailpieces, about 2 million were not carrier-routed and required both manual sorting by the clerks and manual casing by the carriers.

Table 3. October 2009 – May 2010 Flat Mail Volume

Delivery Unit	Total Delivered Flat Mailpieces	Total FSS Mailpieces	Other Sequence Volume	Total Cased Flat Mailpieces	Total Cased Flat Mailpieces Not Carrier Routed
	3,244,428	1,555,407	596,611	1,092,410	53,250
	6,156,253	3,463,926	1,009,091	1,683,236	621,120
	5,176,832	2,441,331	641,290	2,094,211	353,902
	2,139,752	1,073,252	272,337	794,163	247,960
	4,061,731	1,664,289	72,307	2,325,135	275,060
	2,071,277	904,939	460,151	706,187	131,789
Totals	22,850,273	11,103,144	3,051,787	8,695,342	1,983,081

Source: eFlash

This condition occurred because the mail did not meet automation requirements.⁸ The district manager stated that he monitors FSS operations and conducts daily teleconference meetings with district delivery unit officials and business mailers to discuss FSS improvements. In addition, the district manager participates in a weekly teleconference with Western Area and Postal Service Headquarters officials to discuss any FSS issues occurring in the field. Finally, district management is working directly with the processing plant to identify mailpieces by type, zone, and mail arrival time to continue to reduce the number of flat mailpieces that require manual processing.

Unworked flat mailpieces that arrive at delivery units and are not processed on the FSS machines negatively impact delivery operations by requiring manual casing and sorting to put the mailpieces in sequenced order for delivery. Consequently, we estimated unrecoverable questioned costs of approximately \$145,515 for FY 2010. See [Appendix C](#) for our monetary impact.

⁷ From October 2009 through May 2010, the processing facility sent 22,850,273 flat mailpieces to these six selected units during full production. These flat mailpieces included 14,154,931 in sequenced order (11,103,144 flat mailpieces processed on an FSS machine and 3,051,787 other sequenced flat mailpieces such as advertisement flyers and newspapers) and 8,695,342 cased flat mailpieces.

⁸ Automation flats are not more than 11-1/2 inches long or more than 6-1/8 inches high or more than 1/4-inch thick in size. The piece should be flexible to bend at least 1 inch vertically without being damaged. Flat-sized mailpieces must be uniformly thick so that any bumps, protrusions, or other irregularities do not cause more than a 1/4-inch variance in thickness. Mailers using polywrap film or similar material to enclose or cover flat-size mailpieces must apply the cover in the correct direction and ensure that label is readable.

APPENDIX C: MONETARY IMPACT

We estimated a monetary impact of \$145,515 in unrecoverable questioned costs⁹ for FY 2010. We calculated the cost savings¹⁰ based on additional labor cost incurred by selected Mid-America delivery units due to city carriers and manual distribution clerks casing and sorting flat mailpieces. See Tables 4, 5, and 6.

Table 4. Summary of Cost Savings

Findings	Impact Category	Amount
Unworked Flats City Carriers October 2009 – May 2010 FY 2010 Costs for Manual Casing (see Table 5)	Unrecoverable questioned costs	\$99,661
Unworked Flats Manual Distribution Clerks October 2009 – May 2010 FY 2010 Costs for Manual Sorting (see Table 6)	Unrecoverable questioned costs	45,854
	Total	\$145,515

Source: OIG Analysis

Table 5. City Carrier Costs for Manual Casing of Flat Mail October 2009 – May 2010

Delivery Unit	FY 2010 Number of Casing Workhours	Total Cased Unworked Flat Pieces (100 Percent)	FY 2010 Cost of Casing Workhours (100 Percent)	Total Cased Unworked Flat Pieces (80 Percent)	FY 2010 Cost of Casing Workhours (80 Percent)	Total Cased Unworked Flat Pieces (62 Percent)	FY 2010 Cost of Casing Workhours (62 Percent)
[REDACTED]	820	353,250	\$35,792	282,600	\$28,634	175,21	2 \$17,753
[REDACTED]	1,441	621,120	62,933	496,896	50,347	308,07	6 31,215
[REDACTED]	821	353,902	35,858	283,122	28,687	175,53	5 17,786
[REDACTED]	575	247,960	25,124	198,368	20,099	122,98	8 12,461
[REDACTED]	638	275,060	27,870	220,048	22,296	136,43	0 13,823
[REDACTED]	306	131,789	13,353	105,431	10,683	65,367	6,623
Totals	4,601	1,983,081	\$200,930	1,586,465	\$160,746	983,608	\$99,661

Source: eFlash and OIG Analysis

⁹ Unrecoverable costs that are unnecessary, unreasonable or an alleged violation of law or regulation.

¹⁰ According to the DAR for the FSS program, delivery units should expect to capture an 85 percent savings rate for city carriers and an 80 percent savings rate for manual distribution clerks; we used the lower percent to be conservative in our estimates. We based the calculated savings on a carrier productivity rate of 431 flats per hour and clerk productivity of 1,006.25 mailpieces per hour. The manual distribution clerk calculation does not consider carrier route mailpieces because the piece count is not available. Calculations used FY 2010 wage rates.

Table 6. Manual Distribution Clerk Costs for Manual Sorting of Flat Mail October 2009 – May 2010

Delivery Unit	FY 2010 Number of Sorting Workhours	Total Sorted Unworked Flat Pieces (100 Percent)	FY 2010 Cost of Sorting Workhours (100 Percent)	Total Cased Unworked Flat Pieces (80 Percent)	FY 2010 Cost of Casing Workhours (80 Percent)	Total Sorted Unworked Flat Mailpieces (62 Percent)	FY 2010 Cost of Sorting Workhours (62 Percent)
[REDACTED] 351		353,250	\$16,468	282,600	\$13,174	175,212	\$8,168
[REDACTED]	617	621,120	28,956	496,896	23,165	308,076	\$14,362
[REDACTED]	352	353,902	16,498	283,122	13,199	175,535	\$8,183
[REDACTED]	246	247,960	11,560	198,368	9,248	122,988	\$5,734
[REDACTED]	273	275,060	12,823	220,048	10,258	136,430	\$6,360
[REDACTED] 131		131,789	6,144	105,431	4,915	65,367	\$3,047
Totals	1,970	1,983,081	\$92,449	1,586,465	\$73,959	983,608	\$45,854

Source: eFlash and OIG Analysis

APPENDIX D: MANAGEMENT'S COMMENTS

SYLVESTER B. FINE
VICE PRESIDENT, WESTERN AREA OPERATIONS



September 13, 2010

Office of the Inspector General
Attention: Lucine M. Willis
Director, Audit Operations
1735 N. Lynn Street
Arlington, VA 22209-2020

SUBJECT: The Effects of the Flats Sequencing System on Delivery Operations –
Mid-America District (Report Number DR-MA-10-DRAFT)

The Mid-America District agrees with the findings that were identified in the report.

Recommendation #1:

1. Continue to collaborate with business mailers to ensure flat mail pieces meet automation requirements and reduce the amount of unworked flat mail sent to delivery units.

Response

The Mid-America District is in agreement with the recommendation and will work with the Business Service Network (BSN) to identify mailings and mail pieces that could be altered to meet automation requirements. This will create additional volume that can be worked on the FSS automation machines and sorted into Delivery Point Sequence (DPS), therefore, reducing the amount of unworked flat mail at the delivery units. In addition, we will ensure that the BSN periodically sends updates on the criteria of flat automation compatibility to our mailing community. These actions will help further reduce workhour and future-incurred unrecoverable questioned costs.

There will be no estimated completion date as this will be an ongoing process.

Darrin Gadson, Manager Business Services Network, will be responsible for this action.

Additional Comments

- The Mid-America District is committed to eliminating the mail leakage that misses the FSS machines entirely, yet is automation compatible mail. The Kansas City, MO, P&DC has created plans to force mail into the FSS machine. These plans include increased employee and supervisor awareness of focus points where FSS mail can leak out of the FSS mail flow. With daily communication on performance, as well as driving areas of focus and opportunity, we have seen significant success in improving FSS DPS %. Since the period of the OIG data collection, the Mid-America FSS DPS % has increased from 62% to 72% (rolling 48 days of data).
- Both FSS machines in the Mid-America District have been accepted since the OIG data collection. This has created opportunity to add more zones to the FSS environment. Nineteen more 5-digit ZIP Codes have been added at nine different stations.

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- FSS Route Adjustments: The report identified 12 city routes as being eliminated. Mid-America has eliminated an additional 16 routes, with a yearly cost savings of 65,905 city carrier workhours. In the near future, our plan is to reduce another 14 routes with an annual cost savings of 33,936 city carrier workhours.


Sylvester Black