Office of Inspector General | United States Postal Service

Audit Report

Flats Sequencing System Performance in the Capital Metro Area

Report Number NO-AR-18-008 | July 26, 2018

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Highlights

Objective

Our objective was to evaluate Flats Sequencing System (FSS) performance in the Capital Metro Area.

In October 2008, the U.S. Postal Service began nationwide deployment of 100 FSS machines to sort flat-shaped mail (flats) such as large envelopes, newspapers, catalogs, and magazines into letter carrier delivery order.

The Postal Service completed FSS deployment in August 2011, with a projected per machine throughput of 16,500 pieces per hour and 280,500 pieces per day. The Postal Service also established an average daily runtime goal of 17 hours per machine. Since the initial deployment of FSS machines began in 2008, flats mail volume has declined by almost 10.3 billion pieces, or about 46 percent.

Because of the decline in flats mail volume, management in 2010 reduced the nationwide FSS projected per machine throughput goal to 11,500 pieces per hour and 195,500 pieces per day, for an overall reduction of about 30 percent per FSS machine.

We conducted FSS observations in the Capital Metro Area from February to March 2018 at five mail processing facilities which have a total of 10 FSS machines. We selected the following facilities based on FSS throughput and productivity:

- **Two high-performing sites** — the Greensboro, NC, Processing & Distribution Center (P&DC) and the Linthicum, MD, Incoming Mail Facility, which have one FSS machine each;
- **One medium-performing site** — the Dulles, VA, P&DC, which has four FSS machines; and
- **Two low-performing sites** — the Peachtree, GA, and North Metro, GA, P&DCs, which have two FSS machines each.

The Capital Metro Area has a total of 18 FSS machines at nine mail processing facilities. This is the first in a series of FSS area audit reports.

What the OIG Found

We found that the average daily volume for all 18 FSS machines in the Capital Metro Area was about 46 percent below the goal of 195,500 mailpieces per day for the period October 1, 2016, through December 31, 2017. Daily volumes ranged from a low of 2,955 mailpieces per day at the North Metro P&DC to a high of 231,631 mailpieces per day at the Dulles P&DC.

We also found that all 18 FSS machines were about 27 percent, or 4.5 hours, below the average daily runtime goal of 17 hours per machine.

At four of the five facilities we visited, management said achieving volume and runtime goals depends on sufficient flats mail volume and they were not sure there was enough volume to achieve these goals. At the fifth facility, management said they are not subject to a volume goal because their FSS is considered a "research and development" machine for testing and improving FSS performance.

According to Capital Metro Area city delivery unit data, from fiscal year (FY) 2016 through Quarter 2, FY 2018, Capital Metro Area performance was about 16 percent worse at units that received FSS mail versus those that did not. The nationwide performance was about 14 percent worse for the same time period.

About 74 million pieces intended for processing on FSS machines in the Capital Metro Area, or about 23 percent of flats mail, were not processed on FSS machines during that time. This mail is referred to as leakage mail. Instead, about 52 million of those pieces, or about 70 percent, were processed on the Automated Flats Sorting Machine (AFSM), which needs additional letter carrier manual sorting for delivery. The remaining 30 percent of this flats mail volume was either processed on other mail processing equipment or sorted manually.

Management indicated that the flats were not processed on FSS machines because they were not sent to the machines in time to be prepared and run on FSS or the FSS machines rejected them. When this happens, flats mail is processed on the AFSM to avoid delays, or sent to the delivery unit for manual sortation. The Postal Service can measure total leakage through scanning but it cannot identify the cause(s) of the leakage because flats mail leakage is not

managed. As a result, the Postal Service will continue processing leakage mail by a method other than the FSS.

More importantly, it is unclear whether processing flats on FSS is actually more cost-efficient than using AFSM. The Postal Service does not have any current studies or analyses to establish the financial benefit or workhour savings achieved when flats mail is processed on the FSS instead of the AFSM. Processing flats mail on AFSM machines and having the carriers manually sequence the flats may be less expensive than processing flats using FSS machines.

Our analysis showed that from October 1, 2015, through March 31, 2018, processing flats mail on the FSS costs about $0.06 per mailpiece compared to about $0.02 for the AFSM. This analysis does not include possible carrier workhour savings from FSS flats mail being in carrier delivery order. Additionally, the Postal Service does not have any current information about carrier workhour savings related to FSS processing. However, we reviewed the average delivery unit workhours for those units that received FSS flats and compared them to those that did not receive FSS flats. We found that from October 1, 2015, through March 31, 2018, the units that received FSS flats exceeded their projected office time by 14 percentage points more than those that did not receive FSS flats. Although this raises questions about the efficiency of using FSS, to validate the exact cause(s), a study should be done to determine the value of FSS flats mail processing and the cause(s) for the difference in workhours at FSS and non-FSS mail delivery units.

Overall, the Capital Metro Area's 18 FSS machines, on average, exceeded the nationwide FSS productivity goal of 1,650 mailpieces per hour per machine by about 1 percent. Six facilities met the productivity goal, two facilities missed the goal by less than 10 percent, and one facility missed the goal by 19 percent.

Productivity was based on the total number of flats mailpieces prepared and sorted by FSS divided by total employee workhours used to prepare the mail and staff the 18 FSS machines. The productivity ranged from a low of 1,336 to a high of 1,846 mailpieces per hour.

"More importantly, it is unclear whether processing flats on FSS is actually more cost-efficient than using AFSM."

During our five Capital Metro Area site visits, we observed that FSS staffing did not match FSS labor code reports. Specifically, 32 of 302 FSS staff, or about 11 percent, were charging the FSS labor code but not working in the FSS operation. An additional 18 employees were working in the FSS operation but were not using the FSS labor code. Management must ensure employee clock rings are properly completed so labor costs can be correctly attributed and productivity can be accurately measured.

We also found at all five Capital Metro Area sites we visited that flats mail was removed from FSS preparation areas because it could not be processed on the FSS due to its thickness, size, or unreadable address or barcode.

Though we observed various flats mail issues during our on-site visits, none of the five facilities we visited used the electronic Mail Improvement Reporting (eMIR) system, as required, to report the flats mail problems we observed. The eMIR system is used to report business mail quality problems and resolve them with the mailer. Based on Capital Metro Area eMIR system data, from October 2017 through March 2018, eight of the nine Capital Metro FSS facilities reported no flats mail problems. The one remaining facility reported 11 problems, with five problems resolved, four unresolved, and two still open. Management at four of the five facilities we visited said that prior eMIR system reports did not resolve mail problems. Postal Service mailers we interviewed said they received minimal feedback from the Postal Service on flats mail issues.

What the OIG Recommended

We recommended management:

- Track and address the causes of flats leakage and, where possible, implement operational changes to ensure flats leakage mail is processed on the FSS.
- Determine operational costs and savings the FSS currently provides to the Postal Service to fully understand the financial and operational impact of the system on the Postal Service and its customers.
- Monitor supervisors to ensure they are reviewing staff FSS labor code selections for correctness daily.
- Establish a process to ensure the eMIR system is being used to report all flats mail problems and that management is resolving these problems within 30 days of reporting.

Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

July 26, 2018

MEMORANDUM FOR: ROBERT CINTRON
VICE PRESIDENT, NETWORK OPERATIONS

KEVIN L. MCADAMS
VICE PRESIDENT, DELIVERY OPERATIONS

LINDA M. MALONE
VICE PRESIDENT, CAPITAL METRO AREA

FROM: Darrell E. Benjamin, Jr.
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Audit Report – Flats Sequencing System Performance in the Capital Metro Area (Report Number NO-AR-18-008)

This report presents the results of our audit of Flats Sequencing System Performance in the Capital Metro Area (Project Number 18XG005NO000).

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

Attachment

cc: Postmaster General
Corporate Audit Response Management
Chief Operating Officer and Executive Vice President

Results

Introduction/Objective

This report presents the results of our self-initiated audit of Flats Sequencing System (FSS) performance in the Capital Metro Area (Project Number 18XG005NO000). Our objective was to evaluate FSS performance in the Capital Metro Area. See Appendix A for additional information about this audit.

Background

In October 2008, the U.S. Postal Service began nationwide deployment of 100 FSS machines that sort flat-shaped mail (flats) such as large envelopes, newspapers, catalogs, and magazines into carrier delivery order. FSS-processed flats arrive at delivery units ready for the carrier to deliver. The FSS operates at a higher speed and productivity rate compared to the process letter carriers use to manually sort flats.

The Postal Service completed FSS deployment in August 2011, with an expected nationwide throughput of 16,500 pieces per hour and daily volume of 280,500 pieces per FSS machine. The Postal Service also established an average daily runtime goal of 17 hours per machine. Since initial FSS deployment began in 2008, flats mail volume has declined by almost 10.3 billion pieces, or about 46 percent. Because of the decline in flats mail volume, in 2010 Postal Service management reduced the nationwide FSS projected per machine throughput goal to 11,500 pieces per hour and 195,500 pieces per day, for an overall reduction of about 30 percent per FSS machine.

We conducted FSS observations in the Capital Metro Area, which has 18 FSS machines located at nine mail processing facilities. We conducted these observations from February to March 2018 at five mail processing facilities which have a total of 10 FSS machines. We selected the following facilities based on FSS throughput and productivity data:

- **Two high-performing sites** — the Greensboro, NC, P&DC, and the Linthicum, MD, Incoming Mail Facility (IMF), which have one FSS machine each;
- **One medium-performing site** — the Dulles, VA, P&DC, which has four FSS machines; and
- **Two low-performing sites** — the Peachtree, GA, and North Metro, GA, P&DCs, which have two FSS machines each.

Finding #1 Flats Sequencing System Volume and Runtime Performance

We found that the Capital Metro Area's average FSS daily volume at all nine facilities with 18 FSS machines was about 46 percent below the goal of 195,500 mailpieces per day for the period October 1, 2016, through December 31, 2017. None of the nine FSS facilities achieved the average daily volume goal.

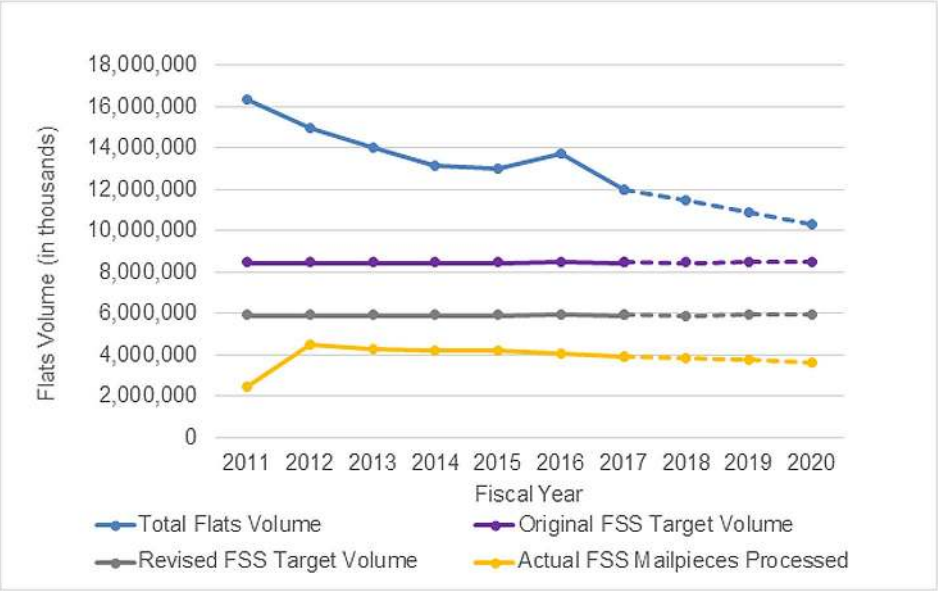
> *"Stakeholders said that flats mail volume will continue to decline as customers move to less expensive ways to achieve their communication goals."*

Greensboro, Dulles, Peachtree, and North Metro P&DC management said that achieving the volume goal depends on flats mail volume and they are not sure there is enough volume to achieve the goal. Linthicum IMF management said they are not subject to a volume goal because the FSS at the facility is considered a research and development machine for testing and improving FSS performance.

The original FSS daily flats national mail processing goal was 280,500 pieces per day. Because of the decline in flats volume since 2008, as of November 2010, the Postal Service reduced this goal to 195,500 mailpieces per day. Despite reducing FSS target volume resulting from declining flats volume, the FSS is still not achieving the nationwide annual target volume of 5.9 billion pieces.

From fiscal year (FY) 2011 through FY 2017, flats volume decreased by about 731 million pieces, or about 5 percent per year. To obtain mailer views on flats mail volume trends, we interviewed representatives from two flats mail service providers, one publisher, and one mailer association. They said that flats mail volume will continue to decline as customers move to less expensive ways to achieve their communication goals (see Figure 1).

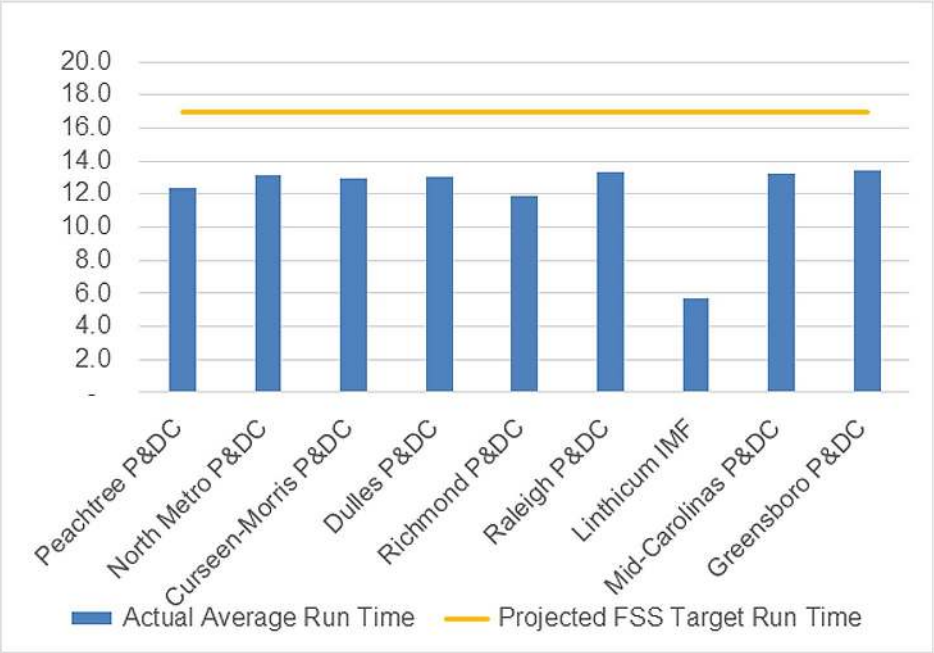
Figure 1. Total Nationwide Flats Mail and FSS Mail Volume



Source: Revenue, Pieces, and Weight (RPW) reports, the Management Operating Data System (MODS), a Postal Service Decision Analysis Report[1] (DAR), and U.S. Postal Service Office of Inspector General (OIG) calculations.

We also found that none of the nine Capital Metro facilities with FSS machines achieved the runtime goal. Overall, they were 27 percent, or 4.5 hours, below the average daily runtime goal of 17 hours per machine (see Figure 2). Greensboro, Dulles, Peachtree, and North Metro P&DC management said that achieving volume and runtime goals depends on sufficient FSS flats mail volume and they are not sure there is enough flats mail volume to achieve these goals.[2]

Figure 2. Capital Metro Area Average FSS Run Time October 1, 2016, through December 31, 2017



Source: Management Information Reporting System (MIRS), Postal Service DAR, and OIG calculations.

According to Capital Metro Area city delivery unit data, from FY 2016 through Quarter (Q) 2 FY, 2018, the area's percentage to standard[3] workhour performance was about 16 percent worse at city delivery units that received FSS mail versus those that did not. The nationwide performance was about 14 percent worse for the same time period (see Table 1).

1 Phase 1 DAR, Flats Sequencing System, October 20, 2006.
2 Linthicum IMF managers said they were not subject to a volume and runtime goal because their facility was considered an FSS research and development machine with a limited operating window. We conducted a survey site visit to the North Houston P&DC, where management said they were able to improve FSS volume and runtime performance by expanding FSS service to about 27,000 customers.
3 Percent to standard is a measure of carrier office workhour performance in relation to mail volume and delivery points. A figure of 100 percent indicates the office performs at the stated performance goal. A figure greater than 100 percent indicates the delivery unit's office performance is less than the desired standard.

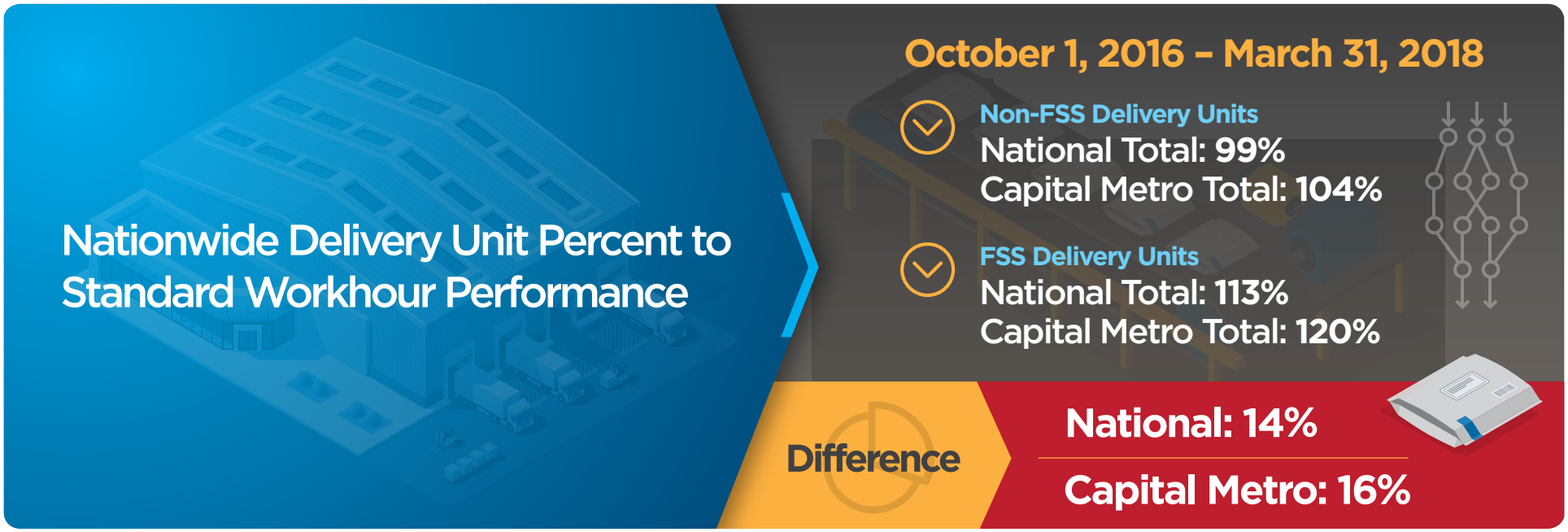


Table 1. Nationwide Delivery Unit Percent to Standard Workhour Performance October 1, 2016, through March 31, 2018

Period	Non-FSS Delivery Units		FSS Delivery Units		(Difference)	
	National	Capital Metro	National	Capital Metro	National	Capital Metro
FY 2016	99%	104%	113%	121%	14%	17%
FY 2017	97%	99%	110%	114%	13%	15%
FY 2018 Q1-Q2	101%	108%	115%	125%	14%	17%
Total	**99%**	**104%**	**113%**	**120%**	**14%**	**16%**

Source: Enterprise Data Warehouse (EDW).

About 74 million pieces, or about 23 percent, of flats mail intended for processing on the FSS was processed on other mail processing equipment or sorted manually. This mail is known as leakage mail. About 70 percent of this leakage mail was processed on Automated Flats Sorting Machines (AFSM) to avoid delays, which requires additional manual sorting at the delivery unit to sort into delivery carrier order. The remaining 30 percent of this flats mail volume was processed on other mail processing equipment or sorted manually.

As shown in Table 2, during FY 2018, FSS leakage was highest in November 2017 at 25 percent, or more than 20 million pieces. About 77 percent of this leakage was processed on an AFSM.

Table 2. FY 2018 Capital Metro Area FSS Leakage

Month	FSS Volume (Mailpieces)	FSS Leakage Volume (Mailpieces)	FSS Leakage Percentage	FSS Leakage Volume Processed on the AFSMs	AFSM Volume (Percentage)
October 2017	61,682,146	13,648,411	22%	9,213,179	68%
November 2017	80,828,858	20,461,802	25%	15,806,378	77%
December 2017	46,634,443	10,720,403	23%	7,365,692	69%
January 2018	46,541,351	10,233,784	22%	6,988,892	68%
February 2018	42,546,560	8,196,985	19%	5,856,760	71%
March 2018	50,779,060	10,759,184	21%	6,743,570	63%
Total	**329,012,418**	**74,020,569**	**22.5%**	**51,974,471**	**70.2%**

Source: Informed Visibility (IV).

Management attributed leakage of flats to their unavailability for processing on the FSS and rejects from the FSS. Specifically, this is flats mail that was not sent to the FSS machine(s) in time for it to be prepared and run on the FSS. The Postal Service can measure total leakage through scanning, but it cannot identify the cause(s) of the leakage because flats mail leakage is not managed. As a result, the Postal Service will continue processing leakage mail by a method other than the FSS.

Recommendation #1

The Vice President, Network Operations, track and address the causes of flats leakage and, where possible, implement operational changes to ensure flats leakage mail is processed on the Flats Sequencing System.

Finding #2 Flats Sequencing System Cost Benefit Studies

The Postal Service has not performed any current studies or analysis to determine the financial benefit or workhour savings achieved when flats mail is processed on the FSS instead of the AFSM. From FY 2016 through March 31, 2018, processing flats mail on the FSS cost about $0.06 per mailpiece compared to about $0.02 for the AFSM.[4] This analysis does not include possible carrier workhour savings from the FSS flats mail already in carrier delivery order. Additionally, the Postal Service does not have any current information about carrier workhour savings related to FSS processing.

According to delivery unit data, city delivery units that receive FSS flats mail nationwide are using 113 percent of their projected office time compared to 99 percent at non-FSS delivery units, for a difference of 14 percent. The projected office time is based on the volume of mail that is not sequenced by the FSS. In addition, on our Audit Asks page, mail carriers have said they are sorting FSS

4 Analysis is based on national total piece handling volume for both operations. The extra handlings (mail prep or second pass) are not included because that would double or triple count mail volume. Workhours include all MODS workhours for the AFSM, FSS, and stand-alone mail prep. Any potential FSS workhour savings at delivery units are not included in this analysis because those savings are unknown.

flats in their delivery vehicles or in the delivery station prior to delivery because it is more efficient than carrying a separate FSS flats mail bundle. To validate the exact cause(s), the Postal Service should do a delivery unit study to validate the value of FSS flats mail processing for delivery units and to determine the cause(s) for the difference in workhours at FSS and non-FSS delivery units.

From October 2017 through March 2018, in the Capital Metro Area, about 74 million pieces, or about 23 percent, of FSS flats mail intended for processing on the FSS were processed on other mail processing equipment or sorted manually. This mail is known as leakage mail. About 70 percent of this mail volume was processed on the AFSM, which requires additional manual sorting. The Postal Service can measure total leakage through scanning, but it cannot identify the cause(s) of the leakage because flats mail leakage is not managed. As a result, leakage mail will continue not being processed by the FSS.

The FSS' impact on delivery units should be determined because of the apparent higher cost of processing flats mail on FSS, decreasing flats mail volume, and flats mail leakage.

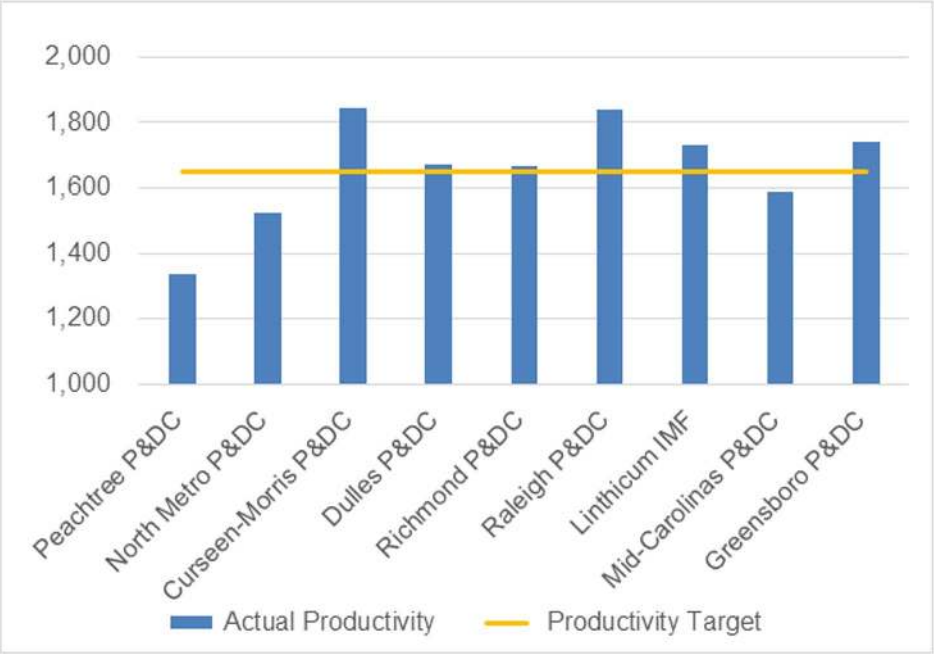
Recommendation #2

The Vice President, Network Operations in coordination with the Vice President, Delivery Operations, determine the operational cost and savings Flats Sequencing System (FSS) currently provides to the Postal Service to fully understand the financial and operational impact of FSS on the Postal Service and customers.

Finding #3 Flats Sequencing System Productivity

From October 1, 2016, through December 31, 2017, the Capital Metro Area's 18 FSS machines, on average, exceeded the nationwide FSS productivity goal of 1,650 mailpieces per hour per machine by about 1 percent. FSS productivity was based on the total number of flat mailpieces prepared and sorted by FSS divided by the total number of employee workhours used to prepare the mail and staff the 18 FSS machines. The Curseen-Morris, Dulles, Richmond, Raleigh, and Greensboro P&DCs and the Linthicum IMF met the productivity goal; the North Metro and Mid-Carolina P&DCs missed the goal by less than 10 percent; and the Peachtree P&DC missed the goal by 19 percent. The productivity ranged from a low of 1,336 mailpieces per hour to a high of 1,846 mailpieces per hour (see Figure 3).

Figure 3. Capital Metro Area FSS Facility Productivity October 1, 2016, through December 31, 2017



Source: MODS, Postal Service DAR, OIG calculations and MIRS.

During our review, we found that FSS staffing did not match FSS labor code reports at the five Capital Metro Area facilities we visited. Specifically, at the Peachtree, North Metro, Dulles, and Greensboro P&DCs and the Linthicum IMF, 32 of 302 FSS staff, or about 11 percent, were using the FSS labor code, but not working in the FSS operation. An additional 18 employees were working in the FSS operation, but were not using the FSS labor code. This resulted in the Peachtree, North Metro, and Mid-Carolinas P&DCs misallocating FSS labor costs by about $1.6 million from October 1, 2016, through December 31, 2017.

Management must ensure that employee clock rings are properly completed so labor costs can be correctly attributed and productivity can be accurately measured. Correcting and preventing clock ring issues provides reliable data to evaluate operational efficiency.

Recommendation #3

The Vice President, Capital Metro Area, monitor and ensure that supervisors are reviewing staff Flats Sequencing System labor code selections daily for correctness.

Finding #4 Electronic Mail Improvement Reporting System Usage

During our five Capital Metro Area site visits, we observed FSS flats mail removed from FSS preparation areas and sent to the AFSM or delivery units for processing. Staff at the five facilities said they did this because they could not process flats mail on the FSS due to mailpiece quality issues. The flats mail quality issues we observed included thickness, size, address readability, and barcode quality.

We found that none of the five Capital Metro Area FSS facilities we visited used the electronic Mail Improvement Reporting (eMIR) system to report mailpiece quality issues. According to a *PostalOne!* operations[5] document, employees should use the eMIR process to report mailpiece quality issues and recurring problems such as unreadable barcodes, broken bundles, and mail not in the proper sort program. Management at the Greensboro, Peachtree, and North Metro P&DCs and the Linthicum IMF said that prior eMIR system reports did not resolve mail problems. As a result, they had to process flats intended for processing on the FSS on other mail processing equipment or sort them manually.

According to the Capital Metro Area eMIR system, from October 2017 through March 2018, eight of the nine FSS facilities reported no flats mail problems. During the same time period, the Peachtree P&DC reported 11 problems with five problems resolved, four unresolved, and two still open.

The mailers we interviewed said they received minimal feedback from the Postal Service on flats mail issues. One mailer received feedback on an issue with bundle strapping covering the address and barcode information. Another mailer said the eMIR system process is difficult as they receive a picture with no details on what the issue(s) is. When mailpiece quality issues are not reported or communicated to mailers, the Postal Service may miss opportunities to reduce mail processing problems.

> *"Employees should use the eMIR process to report mailpiece quality issues and recurring problems."*

Recommendation #4

The Vice President, Capital Metro Area, establish a process to ensure the electronic Mail Improvement Reporting system is being used to report all flats mail problems and these problems are resolved within 30 days of reporting.

Management's Comments

Management disagreed with our findings and recommendations. See Appendix B for management's comments in their entirety.

Regarding the report summary, management stated the report was overly general and should be limited to the timeframes during which the site visits occurred in the Capital Metro Area. Management stated the OIG conducted a discrete examination of a few select FSS sites and that the findings cannot be generalized.

5 Operations eMIR stand-up talk, November 2004.

Regarding recommendation 1, management said they have processes in place to monitor, track, and identify the causes of leakage. Specifically, management said they use the IV FSS Leakage Visualization tool and rely on the sites to optimize their processing windows and address local challenges to track and reduce leakage. Additionally, headquarters tracks leakage through daily and weekly reports. Management said that FSS mail is processed in predetermined order and leakage occurs when mail arrives after it has been processed on the FSS.

Regarding recommendation 2, management said operational costs and savings were already determined during the FSS implementation and no information in the report indicated that they need to perform a cost study. Management also said the recommendation to perform a cost study was not substantiated because the OIG did not visit delivery sites and consider carrier workhour savings from FSS flats. In response to the average daily FSS volumes and low FSS volumes, management said that additional causes such as maintenance issues were not investigated or reported.

Regarding recommendation 3, management said that policies and procedures already exist to ensure employees are clocked into the proper operation. However, management said they will reissue a service talk to all FSS site employees stressing the importance of making proper clock rings to the correct operation.

Regarding recommendation 4, management said there is already an automated process for reporting incompatible FSS mail; however, they acknowledge that it is not always used consistently. Management said they will reissue a service talk to all site employees to use eMIR, but do not agree that they can resolve all problems identified within 30 days due to the complexities of this mail type.

Evaluation of Management's Comments

The OIG considers management's comments unresponsive to the recommendations in the report.

Regarding the report summary, management's statement that the findings were limited to a few select FSS sites is inaccurate. We analyzed seven years of nationwide flats mail data from RPW Reports and FSS mail volume data from MODS, and forecasted three years of activity. This period includes the installation of FSS through the current period. The site visit approach was to observe sites representing the full spectrum of performance ratings to assess qualitative factors that provide insights into what separates the three tiers of performance identified, not to fully base findings on these sites alone. Additionally, we selected the Capital Metro Area because it has the second highest number of FSS machines and from FY 2017 through Q1, FY 2018, it had the third highest number of total pieces processed on FSS. Finally, the FSS facilities we visited are geographically dispersed across four states: GA, MD, NC, and VA.

Regarding management's disagreement with recommendation 1, management can measure total leakage and characteristics such as origin mailer and mail class from the barcode, but cannot identify the specific cause(s) of the leakage such as late arriving mail or misdirection. During the audit, we repeatedly asked management to provide quantitative data categorizing the leakage causes. Although management informed us they had that information, nothing was provided. In addition, management expects mail processing facilities to optimize their processing windows to minimize leakage; however, without knowing the specific cause(s) of leakage, processing facility management may not be able to mitigate leakage.

Regarding management's disagreement with recommendation 2, since the Postal Service does not have current information regarding carrier workhour savings related to FSS processing they should recalculate current FSS operational costs and savings. Without the analysis, management does not have enough information to make an informed economic decision. Given the significant investment in these machines and their poor performance as described in Figure 1 and Table 1 of this report, management needs to fully understand all the costs associated with the machines to best inform its decision going forward. In addition, the OIG did not visit delivery sites to physically verify mail volumes because OIG observations included physical observations of FSS dispatch volumes to the delivery sites and a review of end of run reports that quantify mail by delivery route. The Postal Service should also perform a delivery unit study to determine the cause(s) for the difference in workhours at FSS and non-FSS delivery units. Regarding additional causes for average daily volumes, the OIG reviewed maintenance records and discussed FSS operations with maintenance managers.

Regarding management's disagreement with recommendation 3, while management intends to reissue a service talk to employees stressing the importance of proper clock rings, daily monitoring of staff labor code selections by supervisors is necessary to ensure compliance.

Regarding management's disagreement with recommendation 4, while management intends to reissue a service talk on using eMIRs, a specific deadline for resolving flat mail problems should be established to ensure that mail processing facilities are accountable.

We view the disagreement with recommendations 1, 2, 3, and 4 as unresolved and they will remain open as we coordinate resolution with management. All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. Recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

Appendices

Click on the appendix title below to navigate to the section content.

Appendix A: Additional Information

Scope and Methodology

Our objective was to evaluate FSS performance in the Capital Metro Area. We selected the Capital Metro Area because it has the second highest number of FSS machines and from FY 2017 through Q1, FY 2018, it had the third highest amount of total pieces fed. In addition, FSS facilities we visited are geographically dispersed across four states: GA, MD, NC, and VA.

To achieve our objective, we:

- Conducted FSS survey observations at the North Houston, TX, P&DC in the Southern Area in January 2018. We selected the North Houston P&DC because it had the highest FSS productivity nationwide and we wanted to gain an understanding of current FSS operations.
- Analyzed and evaluated data from the Postal Service's MODS, MIRS, IV, Time and Attendance Collection System (TACS), and eMIR system. The data were used to determine FSS volume, productivity, throughput, leakage, employee clock rings, and mail preparation issues.
- Compared and evaluated actual volume, throughput, and productivity to the DAR performance metrics and headquarters' revised performance metrics.
- Identified and assessed causes for FSS leakage, determined how facility management used FSS leakage data to improve operations, and evaluated how FSS leakage was communicated to the mailers.
- Observed and evaluated actual FSS performance and employee clock ring procedures at the selected facilities.
- Reviewed bi-weekly delayed mail reports and observed flats volumes at the selected facilities.
- Interviewed mail processing managers, supervisors, clerks, mail handlers, and maintenance operations.
- Interviewed representatives from two mail service providers — one publisher and one mailer association — to discuss their experiences with eMIRs and get their views on flats mail volume trends.
- Solicited and summarized public comments from our Audit Asks page on issues with and benefits of FSS machines in the Capital Metro Area.

To determine which Capital Metro Area facilities to observe we:

- Ranked the nine mail processing facilities from highest to lowest based on overall throughput and productivity for the period October 1, 2016, through December 31, 2017.
- Judgmentally selected the five mail processing facilities below for site observations:
  - **Two high-performing sites** — the Greensboro, NC, P&DC and the Linthicum, MD, IMF, which have one FSS machine each;
  - **One medium-performing site** — the Dulles, VA, P&DC, which has four FSS machines; and
  - **Two low-performing sites** — the Peachtree, GA, and North Metro, GA, P&DCs, which have two FSS machines each.

We conducted this performance audit from January through July 2018, 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 that 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 June 11, 2018, and included their comments where appropriate.

We used computer-processed data from the Postal Service's EDW, MODS, MIRS, TACS, IV, and eMIR system to perform our analysis. We assessed the reliability of computer-generated data by interviewing knowledgeable agency officials, conducting observations, and reviewing related documentation. We determined that the MODS, MIRS, IV, and eMIR system were sufficiently reliable for the purposes of this report. Overall, we determined that TACS data provide sufficient context to evaluate FSS operations and was sufficiently reliable for the purposes of this report. However, we did find that individual TACS clock ring data did not always reflect the employees working in the FSS operation during our site observations.

Prior Audit Coverage

Report Title	Objective	Report Number	Final Report Date	Monetary Impact
Undeliverable Bulk Business Mail at the Margaret L. Sellers Processing and Distribution Center	Determine if undeliverable bulk business mail at the Margaret L. Sellers P&DC was being processed in accordance with Postal Service policy.	NO-AR-17-008	5/1/2017	None
Electronic Mail Improvement Reporting – Workshare Mail Quality	Determine whether Eastern Area personnel are fully using eMIR to report mail quality issues and recover costs associated with irregularities in workshare mail preparation.	CP-AR-16-001	12/8/2015	None
Challenges in Controlling Costs with Standard Mail Flats and Periodicals	Summarize theories as to why Standard Mail Flats and Periodicals have not met the cost coverage requirement during periods of increased automation, based on prior OIG audits conducted from FYs 2008 through 2013.	SW-WP-15-001	2/26/2015	None

Appendix B: Management's Comments

UNITED STATES POSTAL SERVICE

July 13, 2018

RICK POLAND
ACTING DIRECTOR, AUDIT OPERATIONS

SUBJECT: Response to Draft Audit Report – Flats Sequencing System Performance in the Capital Metro Area (Report Number NO-AR-18-DRAFT)

Thank you for the opportunity to respond to the Office of Inspector General (OIG) draft audit report, Flats Sequencing System Performance in the Capital Metro Area. We have serious concerns with the methodologies employed during the audit, as well as with many of the conclusions. The audit report fails to acknowledge or address the numerous non-FSS-related factors that could be relevant to the findings, instead attributing all observations to FSS operations at a given site. The audit report also fails to account for carrier workhour savings, which should be central to any cost-benefit analysis related to FSS performance. These issues, as well as others, are addressed in more detail below.

As an initial matter, the Highlights section of the audit report makes overly general statements that are not limited to the time period or location of the specific audit, namely a review of five Capital Metro Area sites from February to March 2018. Given the fact that the OIG only conducted a discrete examination of a few select FSS sites, there is no basis to make such statements. In addition to being methodologically flawed, the findings cannot and should not be generalized as such.

More specifically, the first and second findings reference FSS volume not meeting national goals and discuss leakage of mail, yet the OIG audit failed to mention and document any variables that contribute to expected leakage. Each FSS site has a predetermined order when zones will be processed. When mail arrives at a processing plant outside the FSS processing window or mail is extracted out of the primary processes after a particular FSS zone has been processed, this committed volume of mail must be processed on the AFSM or sent out unworked, thereby creating leakage. Additionally, the report stated average daily volumes ranged from a low of 2,955 pieces at one site; however, no details regarding maintenance, failures, or other conditions that could have impacted a particular day were investigated or provided.

The first finding also attempts to compare delivery units with and without FSS flats indicating that units with FSS flats use more office time. This analysis, however, does not take into account that FSS sites are chosen based on the typically higher volume of flat mail received at those sites as a result of varying socio-economic conditions, and, as such, those sites would likely use more office time regardless of the mail processing equipment utilized. More mail, including working mail that must be handled by carriers in the office, can have an impact on the office time. Offices without FSS machines have more earned office time based on casing all mail, while sites with FSS do not earn as

much time. These differences result in FSS sites experiencing a greater impact upon office efficiency compared to non-FSS sites. The audit also points out a steep decline in all flat mail nationally, but does not discuss that FSS volume has grown relative to other volume during this decline.

The second finding also discusses cost-benefit studies, yet the OIG did not visit delivery sites to physically verify the impact and savings of the FSS flats on the customer service side. The OIG also failed to identify which routes have been adjusted to account for ongoing changes. Moreover, the audit report relies on unsupported and overly broad conclusions in its recommendation that a cost savings study be undertaken (for example, the statement that "it is unclear whether processing flats on FSS is actually more cost-efficient than using AFSM" and the statement that "(processing flats mail on AFSM machines . . . may be less expensive than processing flats using FSS machines."). These unsupported conclusory statements are not necessary to recommend that another study be undertaken.

In addition, the audit report explicitly acknowledges that the OIG's analysis does not include possible carrier workhour savings from FSS flats mail being processed and sorted into carrier delivery order. For that reason, the cost finding does not add value to the study and potentially causes confusion. The OIG also states that processing flat mail on AFSM machines and having carriers manually sequence the flats is less expensive by $0.04 cents than processing flats using FSS machines; however, as discussed above, the OIG failed to recognize in its analysis the carrier workhour savings realized by having flat volume sorted into delivery sequence.

We disagree with or dispute the need for the Recommendations for the reasons noted below.

Recommendation #1
The Vice President, Network Operations, track and address the causes of flats leakage and, where possible, implement operational changes to ensure flats leakage mail is processed on the Flats Sequencing System.

Management Response/Action Plan
Management disputes the need for this recommendation as processes already exist that monitor, track, and identify the causes of leakage. The Informed Visibility FSS Leakage visualization tool allows sites to track total FSS Leakage pieces and percentage by week, month, and quarter. It also allows sites to track leakage down to the origin mailer, mail class, and delivery zip 5, among other criteria selections. Sites are responsible for optimization of their process windows to minimize leakage and deal with their local challenges (geographical, processing, # city routes vs rural routes, etc.). In addition, Headquarters sends out daily and weekly reports tracking vital districts and units nationally.

Recommendation #2
The Vice President, Network Operations in coordination with the Vice President, Delivery Operations, determine the operational cost and savings Flats Sequencing System (FSS) currently provides to the Postal Service to fully understand the financial and operational impact of FSS on the Postal Service and customers.

Management Response/Action Plan
Management disputes the need for this recommendation as operational cost and savings for FSS were determined and completed during FSS implementation. There is no information contained in this report that would indicate that we would need to change or modify these procedures.

Recommendation #3
The Vice President, Capital Metro Area, monitor and ensure that supervisors are reviewing staff FSS labor code selections daily for correctness.

Management Response/Action Plan
Management disputes the need for this recommendation as policies and procedures already exist to ensure employees are clocked in to the proper operation. However, we do recognize the importance of properly coding work hours and will reissue a service talk to all sites with FSS equipment to stress the importance of making proper clock rings to the correct operation.

Recommendation #4
The Vice President, Capital Metro Area, establish a process to ensure the electronic Mail Improvement Reporting system is being used to report all flats mail problems and these problems are resolved within 30 days of reporting.

Management Response/Action Plan
Management disputes the need for this recommendation as the report made it clear the automated process exists and that some employees are aware of the process although it is not always used consistently. However, we do recognize the importance of reporting incompatible FSS mail and will reissue a service talk to all sites to utilize eMIR.

We do not agree that all problems identified can and will be resolved within 30 days of reporting. Due to the complexities of this type of mail and the physical requirements as outlined in the Domestic Mail Manual, it is likely resolution would take longer than 30 days.

for.
ROBERT CINTRON
VICE PRESIDENT, NETWORK OPERATIONS

KEVIN L. MCADAMS
VICE PRESIDENT, DELIVERY OPERATIONS

for: LINDA M. MALONE
VICE PRESIDENT, CAPITAL METRO AREA

cc: Manager, Corporate Audit & Response Management

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