December 23, 2008

WALTER F. O'TORMEY
VICE PRESIDENT, ENGINEERING

SUBJECT: Audit Report – Flats Sequencing System: Program Status
(Report Number DA-AR-09-001)

This report presents the results of our audit of the Flats Sequencing System (FSS) readiness for first article testing (FAT) (Project Number 08YG027DA000). [redacted] FSS is currently the largest U.S. Postal Service mail automation investment and is expected to generate operational savings of [redacted] annually. FAT is a key program step that determines whether the system design allows for full deployment. See Appendix A for additional information about this audit.

FSS Program Status

The Postal Service postponed FAT, scheduled for November 3, 2008, because machine performance was not meeting two key performance metrics — throughput and acceptance rate. This decision is not expected to delay program savings. We believe delaying FAT allows the FSS program to better balance system performance and schedule risks.

While program management is attentive to system performance and schedule risks, declines in mail volume introduce a substantial new deployment risk to the program which calls for management to develop a mitigation plan. See Appendix B for our detailed comments.

We recommend the Vice President, Engineering:

1. Establish a risk mitigation plan for volume declines to include a reevaluation of sites scheduled to receive Flats Sequencing Systems (FSS). The reevaluation should include the expected number of sort plans and delivery points for each FSS scheduled for deployment.

Management's Comments

Management agreed with the finding but felt they have already conducted a detailed review of volume change impacts on FSS equipment deployment. In addition, management stated that current attention to volume changes is thorough and appropriate and they do not believe that any risk mitigation plan "beyond what is currently being analyzed is necessary." See Appendix C for management's comments, in their entirety.

Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) disagrees with management's comments because their corrective actions in response to our prior report do not include a risk mitigation plan. Subsequent to management providing their December 5, 2008, written response, we discussed these issues with them again and reviewed their actions to broaden the number of zones to compensate for volume declines. As of December 17, 2008, management was analyzing flats volume data and its impacts on the FSS program, and developing a comprehensive mitigation plan which will enable them to react to volume declines. If there is a need to react, program management will seek senior executive support in February 2009. As such, we find these updated management actions responsive to the finding and recommendation.

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

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

E-Signed by Darrell E. Benjamin, Jr
VERIFY authenticity with ApproveIt

Darrell E Benjamin, Jr.
Deputy Assistant Inspector General
for Support Operations

Attachments

cc: Patrick R. Donahoe
Donald E. Crone
Aron M. Sanchez
Katherine S. Banks

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

In December 2006, the Postal Service approved a [redacted] Phase I Decision Analysis Report (DAR) to develop, purchase, and deploy 100 FSS machines to 32 sites. The DAR stated the FSS will process flats[1] from mail streams produced by the Automated Flat Sorting Machine (AFSM) 100 and the Upgraded Flat Sorting Machine 1000. In addition, the FSS will process a significant portion of the flats that currently arrive at delivery units in mailer-prepared bundles and sacks. The mail the FSS processes arrives at the delivery unit in walk sequence order, ready for delivery by the carrier with no additional mail movement or manual sorting required. Savings should result when delivery units can eliminate the requirement for mail carriers to manually case flat mail. A small reduction in clerks' workhours at delivery units should also result, since employees would no longer need to move FSS-processed mail to the carrier casing areas.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this audit is to provide a program status of the FSS system readiness for FAT. To accomplish our objective, we monitored and reviewed performance data from the FSS FAT system that is installed at the Dulles Processing and Distribution Center (P&DC) and monitored the activity of the In-Plant FAT system installed at the supplier facility. We compared our observations to the statement of work performance requirements and discussed performance deficiencies with program management.

We conducted this performance audit from August through December 2008 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on November 4, 2008, and included their comments where appropriate.

[1] Flats are mailpieces that exceed one of the maximum dimensions of letter-size mail, such as large envelopes, newspapers, catalogs, circulars, and magazines.

PRIOR AUDIT COVERAGE

The OIG previously issued the following reports relating to development of the FSS.

Report Title	Report Number	Final Report Date	Comments
Flats Sequencing System Risk Management	DA-AR-07-003	July 31, 2007	The audit determined that Postal Service Engineering needed to focus greater attention on risk management standards to ensure that the significant risks associated with deployment of the FSS were adequately identified and managed.
Flats Sequencing System First Article Testing Readiness and Quality	DA-AR-08-006	June 4, 2008	The audit determined the Postal Service needed to focus greater attention on workload, FAT schedule, and critical deliverables.

APPENDIX B: DETAILED COMMENTS

System Performance and Savings Impact

As depicted in Table 1, data from the FSS FAT system installed at the Dulles P&DC revealed the system was not meeting contract performance criteria for throughput and acceptance rates in the month prior to the scheduled FAT. Therefore, management elected to postpone FAT.

Table 1. FAT Readiness Analysis

System Performance Criteria	Average Results (October 2008)	Contract Requirement
Accept Rate	89.1%	95.00%
Throughput Rate	10,361	16,500
Throughput Rate Normalized	12,062[2]	
Average Volume Per Sort Plan	22,368	45,375

We agree with management's decision to balance performance and schedule given that:

- The average FSS acceptance rates for seven sort plans processed at the Dulles P&DC were 85.5 to 89.1 percent.
- The acceptance rate for the AFSM 100 at the Dulles P&DC was 96 percent for the same period.
- Lower than expected acceptance rates would generate additional manual handlings in an FSS environment.
- Throughput rate was below expectation. Volume reduction in the daily sort plans will make it difficult to achieve the throughput requirement of 16,500 mailpieces per hour. Volume reduction has a direct correlation to lower throughput.

Management's decision to delay FAT will not slow program savings because they have elected to continue, at this time, deploying the FSS machines as scheduled.

[2] Normalized throughput – for the purposes of evaluating throughput contract requirements, when volume on a live mail run is lower than the 45,375 mailpiece baseline, throughput is "normalized" or adjusted proportionally to reflect what the system throughput would have been had the volume been at the baseline level.

Volume Declines Increase Program Risks

As depicted in Table 1, throughput was below expectations. The reduction in flat volume impacts the method for measuring the success of meeting performance criteria. In particular, to ensure the FSS FAT system has mail volume to accurately measure the throughput requirement of 16,500 mailpieces per hour, the FSS equipment must process 45,375 flat mailpieces per sort plan.

However, since our previous report, the Postal Service has communicated that flats volume declined 11.3 percent for the first three quarters of fiscal year 2008. In fact, 27 of the 32 sites scheduled to receive FSS equipment have experienced flats machinable volume declines of 4.5 million mailpieces per month, on average, over the last 2 years. Finally, the average daily flat mail volume per sort plan that the FSS FAT system processed at the Dulles P&DC during October 2008 was approximately 22,368 mailpieces (51 percent below the contract requirement of 45,375).

In July 2007, we also reported on FSS program risks[3] and recommended a mitigation plan for the identified risks. We believe the trend in flats volume poses a substantial risk to the FSS program since declines in machinable flat volume for the sites initially selected to receive FSS machines would impact program savings expectations.[4] As such, we believe program management has an opportunity to formalize a risk mitigation plan for volume declines to maximize program savings.

[3] *Flats Sequencing System Risk Management* (Report Number DA-AR-07-003, dated July 31, 2007).
[4] FSS Decision Analysis Report sensitivity analysis defined lower bound return on investment at a throughput of 14,500 pieces per hour.

APPENDIX C: MANAGEMENT'S COMMENTS

WALTER O'TORMEY
VICE PRESIDENT
ENGINEERING

UNITED STATES POSTAL SERVICE.

December 5, 2008

LUCINE M. WILLIS
DIRECTOR, AUDIT OPERATIONS
1735 NORTH LYNN STREET
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SUBJECT: Response to Draft Audit Report–Flats Sequencing System: Program Status (Report Number DA-AR-09-DRAFT

USPS Engineering has reviewed the subject Draft Audit Report and provides the requested written response below. Overall, the recommendation is viewed as untimely and redundant with a previously issued audit recommendation that was responded to and closed out. The report has offered no new information or offered no new solutions but serves mainly to have us repeat our previous response and reiterate the activity that we initiated a while back under our own initiative. We are disappointed at having to stop again and formally address an issue that your auditors should be well aware is being addressed on an ongoing basis.

Recommendation:

Establish a risk mitigation plan for volume declines to include a reevaluation of sites scheduled to receive Flats Sequencing Systems (FSS). The reevaluation should include the expected number of sort plans and delivery points for each FSS system scheduled for deployment.

Response:

We agree with this finding but have already conducted a detailed review of volume change impacts on FSS equipment deployment plans and have previously highlighted that our efforts will necessarily be ongoing. We believe that our current attention to this matter is thorough and appropriate and do not believe that any "risk mitigation plan" beyond what is currently being analyzed is necessary.

Attached is a highlighted portion of our response to an audit recommendation issued back on June 4, 2008. The recommendation is nearly identical to the one in this report. Our response began by clearly stating that USPS Engineering had previously identified volume as a risk factor and had completed efforts addressing this issue. Moreover, our response concluded with the statement, "Since mail volumes are not static, we will continue to monitor volume forecasts and make adjustment if necessary." This situation continues as does our effort. Therefore, we consider this recommendation closed, again.

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Walter O'Tormey

Walter O'Tormey

cc: Mr. Donahoe
Mr. Galligan

Attachment to Management's Response – Prior Comments

O.I.G. RECOMMENDATION #2

Reassess forecasted mail volumes at sites listed on the current deployment schedule. If mail volume is below expectations, identify the impact of lower mail volumes on savings projected in the Decision Analysis Report and reexamine the number of Flats Sequencing Systems currently scheduled for deployment.

USPS RESPONSE

USPS Engineering has previously identified this finding as a risk and efforts have been completed to ensure that all systems will meet the Decision Analysis Report volume expectation.

The Postal Service has reassessed projected mail volumes for Phase-1 FSS sites, and additional zones for flats sequencing have been identified to compensate for predicted volume decline across the initially selected zones. Note that, as a hedge against possible future volume decline, the number of systems targeted per FSS site during the Phase 1 planning process was intentionally set at a number lower than that necessary to support 100% of the candidate forecasted volume. The flat volume decline now being experienced has no impact on Phase-1 projected DAR savings. We continue to judge the number of Flats Sequencing Systems scheduled for deployment to be an appropriate quantity and scheduled for deployment in the right locations.

The process used to monitor volume forecasts utilizes a zone-based system capacity deployment model developed in the fall of 2006. The model utilized FY 2006 city carrier volume and route information from the Delivery Operations Information System (DOIS), the Address Management System (AMS), and rural route volume. In December 2006, the volume information was shared with each USPS Area for selection of zones and carrier routes to provide the 280,500 piece volume projection needed per system per day. In December 2007, the model was updated with FY 2007 volume data. This information was shared with each Area, which was tasked to select additional zones and carrier routes to compensate for the decline in volume from FY 2006 to FY 2007. Areas made the adjustments resulting in an increase of 360 zones and 5,223 carrier routes. This will provide the FSS with the needed 280,500 pieces per day and 17 hours per day run time. Enclosed is electronic attachment-1 (FSS.Phase1.Zones_05.01.08.xls), which provides the results from the updated model resulting in a total of 1,791 zones and 44,904 carrier routes to support the 100 Phase-1 Flats Sequencing Systems.

Since mail volumes are not static, we will continue to monitor volume forecasts and makes adjustments if necessary.

USPS CLOSURE PLAN

USPS Engineering considers this recommendation closed.