

September 23, 2010

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SUBJECT: Audit Report – Controls Over System for International Revenue and Volume, Outbound and International Origin-Destination Information System (Report Number CRR-AR-10-006)

This report presents the results of our audit of the System for International Revenue and Volume, Outbound and International Origin-Destination Information System (SIRVO-IODIS) (Project Number 10RG009CRR000). Our objectives were to assess controls over SIRVO-IODIS and the reliability of SIRVO-IODIS test results and the effectiveness of revenue protection programs for outbound First-Class Mail® International and Priority Mail® International. This self-initiated audit addresses financial risk. See Appendix A for additional information about this audit.

SIRVO-IODIS is a statistical sampling system the Postal Service uses to develop revenue, pieces, and weight (RPW) estimates for outbound First-Class Mail International and Priority Mail International and to conduct terminal dues settlements. The system collects mail characteristic information, volume flows, and transit time information on the major categories of international mail. SIRVO-IODIS samples outbound international mail where census data is not available, such as collection box, carrier pickup, contract postal unit, and retail window entry points. Management uses this data in planning and developing budgets and mail volume forecasts, designing and developing mail processing facilities and equipment requirements; identifying and correcting service problems; and supporting revenue protection measures.

In fiscal year (FY) 2009, management conducted 7,888 SIRVO-IODIS tests at the International Service

Centers (ISCs); and the International/Network Distribution Center. During each SIRVO-IODIS test, multiple mailpieces are taken from mail receptacles and tested.

¹ The charge levied by the destination country to cover the costs incurred for delivering incoming international mail.

Data collection technicians (DCTs) use electronic scales in conjunction with Computerized On-Site Data Entry System software on laptop computers to record information about mailpieces (including postage displayed on the mailpiece). Based on mailpiece weight, the software calculates whether the postage is shortpaid. Approximately 2.1 million mailpieces were examined during SIRVO-IODIS testing in FY 2009.

Conclusion

Data collection and validation controls over SIRVO-IODIS are adequate and test results used for RPW estimates are reliable. There are a number of automated and manual controls that assess the reliability of SIRVO-IODIS tests. However, management oversight controls with regard to revenue protection programs for outbound First-Class Mail International and Priority Mail International are not adequate.

Data Collection and Validation Controls

We found data collection and validation controls to be adequate and test results used for RPW estimates to be reliable. Some automated and manual controls that enhance the reliability of SIRVO-IODIS tests include:

- Experienced DCTs perform on-site SIRVO-IODIS tests at the five ISCs and the International/Network Distribution Center.
- The SIRVO-IODIS testing schedule is largely automated the test schedule is integrated with the outbound international mail dispatch system and DCTs are alerted when the dispatch system processes a test receptacle. In addition, automated data validation and edit routines are incorporated into the Computerized On-Site Data Entry System software.
- An on-site statistical program manager reviews each completed SIRVO-IODIS test before it is transmitted to the centralized mainframe computer.
- There are data edit and validation routines performed during the SIRVO-IODIS system processing and the final testing results are reviewed at headquarters.

Management Oversight Controls

Management oversight controls related to revenue protection programs for outbound First-Class Mail International and Priority Mail International need strengthening. Specifically, Statistical Programs does not provide SIRVO-IODIS test results to international operations that detail shortpaid postage detected at each ISC. In addition, two of the five ISCs were not processing shortpaid mailpieces in accordance with

international mail policies.² At our request, the Statistical Programs group performed a detailed analysis of FY 2009 shortpaid postage. They estimated there was \$26.9 million in revenue at risk³ from shortpaid postage on outbound First-Class Mail International and Priority Mail International mailpieces during FY 2009. Looking forward, this equates to approximately \$53.8 million in revenue at risk over a 2-year period.

Revenue Protection Programs

The five ISCs did not use consistent procedures to address mailpieces with shortpaid postage. The state of the procedures in place to return shortpaid mail to other internal or external units for collection of shortpaid postage in accordance with international mail policies. However, the state of the procedures to process shortpaid mailpieces and they dispatch those mailpieces without taking action to collect shortpaid postage.

SIRVO-IODIS testing identified shortpaid postage on 7 percent of First-Class Mail International⁴ and 8 percent of Priority Mail International⁵ mailpieces tested in 2009. However, Statistical Programs does not provide SIRVO-IODIS test results to international operations that detail shortpaid postage detected at each ISC. We believe those reports would be a useful tool to monitor shortpaid international mail that ISCs are processing.

Those estimates of shortpaid postage are likely understated because SIRVO-IODIS testing does not identify shortpaid postage on mailpieces with no visible postage amount. Mailpieces without visible postage include mailpieces with Permit Imprint postage and stealth Information-based Indicia (IBI)⁶ postage. Mailpieces with these types of postage represented about 26 percent of the mailpieces examined during SIRVO-IODIS testing.

The Postal Service is implementing new revenue protection procedures⁷ for IBI postage generated from PC Postage® products.⁸ The Postal Service will use mail processing

⁷ Federal Register, Number 186, Draft, *Unpaid and Shortpaid Information-Based Indicia Postage Meters and PC Postage Products*.

² Handbook T-5, Chapter 4, *Irregularities - Outbound*, contains business rules for processing mail with postage irregularities. This includes 1) forwarding the mail to its destination as paid in full, 2) forwarding the mail to its destination and billing the mailer for the postage shortage, 3) returning the mail to the sender, or 4) forwarding mail with no return address to a mail recovery center.

³ Revenue that the Postal Service is at risk of losing (for example, when a mailer seeks alternative solutions for services currently provided by the Postal Service).

⁴ According to Handbook T-5, letter class mail less than one pound and less than 21 cents shortpaid is sent to its final destination as paid in full. The percentage is based on total First Class Mail International shortpaid pieces less these pieces being sent forward.

⁵ According to Handbook T-5, letter and parcel mail more than one pound and less than one dollar shortpaid is sent to its final destination as paid in full. The percentage is based on total Priority Mail International shortpaid pieces less these pieces being sent forward.

⁶ Digitally generated indicia that include a two-dimensional barcode.

⁸ PC Postage products are software-based postage offered by commercial providers approved by the Postal Service.

equipment and ancillary information systems to detect and capture data for suspect mailpieces with shortpaid postage. The Postal Service will analyze this data to verify whether sufficient postage was paid and electronically notify both the mailer and the PC Postage provider of any postage deficiency. In cases where deficient postage is confirmed, the Postal Service will take corrective measures to recover the appropriate postage. Corrective actions can include collection of the shortpaid postage, revocation of the mailer's account privileges, and/or civil and criminal fines and penalties pursuant to existing federal law.

Management is primarily implementing the new revenue protection procedures at the larger post office delivery units and the procedures will only apply to domestic mail delivery. The five ISCs are the delivery units for outbound international mail and extending the enhanced revenue protection procedures to outbound international mail at the ISCs would strengthen the Postal Service's revenue protection programs. As a mitigating control, the Postal Service can use SIRVO-IODIS test results as an important tool to monitor shortpaid postage on First-Class Mail International and Priority Mail International products at the ISCs. The Postal Service estimates there was \$26.9 million in revenue at risk from shortpaid postage on outbound First-Class Mail International and Priority Mail International mailpieces during FY 2009. Looking forward, this equates to approximately \$53.8 million in revenue at risk over a 2-year period. See Appendix B for our detailed analysis of this topic.

We recommend the manager, Statistical Programs, direct the manager, Revenue and Volume Reporting, to:

1. Develop a quarterly shortpaid postage report for outbound First-Class Mail and Priority Mail International and provide this report to Global Business Systems and Intelligent Mail Planning and Standards.

We recommend the vice president and managing director, Global Business, direct the executive director, International Operations, to:

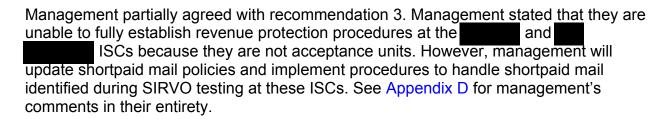
- 2. Implement procedures to use System for International Revenue and Volume, Outbound and International Origin-Destination Information System test results to monitor shortpaid postage at each international service center.
- 3. Establish revenue protection procedures at the International Service Centers.

We recommend the manager, Intelligent Mail Planning and Standards, direct the program manager, Intelligent Mail Planning and Standards, to:

4. Assess the viability of extending enhanced revenue protection programs to outbound international mail, similar to the new procedures for domestic mail.

Management's Comments

Management agreed with our findings and recommendations 1, 2, and 4 and did not comment on our non-monetary impact. Management stated that they will develop a shortpaid postage report and implement procedures at the ISCs to use the shortpaid data. Additionally, they will assess the viability of extending enhanced revenue protection programs to outbound international mail.



Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to the recommendations. We deem the corrective actions related to recommendation 3 to be responsive to the recommendation as it is an acceptable revenue protection procedure. The corrective actions should correct the issues identified in the report.

The OIG considers all the recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These 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.

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



Darrell E. Benjamin, Jr.
Deputy Assistant Inspector General for Revenue and Systems

Attachments

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APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

SIRVO-IODIS is a statistical sampling system that provides RPW estimates for outbound First-Class Mail International and Priority Mail International. The Postal Service uses these estimates in its annual Cost and Revenue Analysis report and also to support terminal dues settlements with foreign postal administrations. The Statistical Programs group at headquarters develops the SIRVO-IODIS survey design and data collection methods and reviews the final SIRVO-IODIS test results.

In FY 2009, DCTs at the five ISCs and the International/Network Distribution Center conducted 7,888 SIRVO-IODIS tests that examined over 2.1 million international mailpieces. Over 90 percent of the mailpieces were First-Class Mail International as shown in Table 1.

Table 1. Mail Examined During SIRVO-IODIS Testing

Mail Subclass	Mailpieces	Percent
First-Class Mail International	1,914,105	90.4
Priority Mail International	48,484	2.3
International Surface/Airlift Mail	21,087	1.0
Other ⁹ 133,309		6.3
Totals 2,116,985		100.0

The SIRVO-IODIS survey design is integrated with an algorithm within the Global Business Systems (GBS) Dispatch system to automatically select mail receptacles for testing. DCTs use the Computerized On-Site Data Entry System software, in conjunction with electronic scanners and scales, to conduct the tests, which are uploaded to an onsite Computerized On-Site Data Entry System Web-Based Unit. Managers in Statistical Programs (MSP) review the test results prior to transmission to the Postal Service's mainframe computer in Entry System Isptop, scale, and scanner used in SIRVOIODIS testing.

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⁹ Other includes Return to Sender mail; Foreign Return Receipt mail; Open Transit mail; International Business Reply mail; and domestic mailpieces.



Figure 1. Computerized On-Site Data Entry System Laptop, Scale, and Scanner

The Postal Service's international mail operations guidelines direct ISCs to detect shortpaid and unpaid items and describe various handling scenarios for mail with and without a return address. The handling scenarios described below depend on the mail type and weight, the amount of the shortpaid postage, and whether the mail is air or surface transportation:

- The Postal Service returns Shortpaid First-Class Mail International and Priority Mail International to sender, holds it for postage collection, dispatches it as "Postage and Fees Paid," dispatches with a T-stamp,¹⁰ or sends it to a mail recovery unit.
- In general, the Postal Service returns all unpaid First-Class Mail and Priority Mail International with a return address to the sender.
- The Postal Service either forwards unpaid mail without a return address as "Postage Due" or sends it to a mail recovery center.

Figures 2 and 3 are examples of DCT notations of shortpaid postage on sampled items for First-Class Mail International and Priority Mail International, respectively.

¹⁰ A T-stamp allows the destination country to determine and collect the shortpaid amount.

FIRST GLASS MAIL
INTERKATIONAL

FIRST GLASS MAIL
INTERKATIONAL

S-64

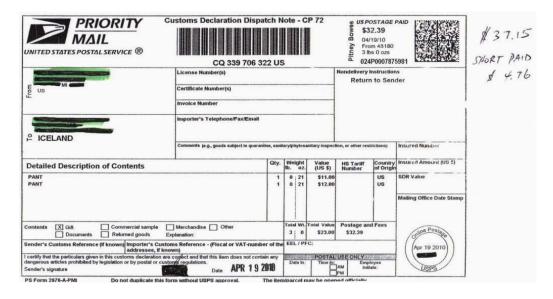
SHORT PAID

OURS GROWN OF PAID

OURS

Figure 2. Shortpaid Postage on First-Class Mail International

Figure 3. Shortpaid Postage on Priority Mail International



To address revenue losses from shortpaid postage, the Postal Service is implementing the Passive Adaptive Scanning System (PASS) program at high-volume delivery units. A PASS unit is an overhead passive scanning system that captures mailpiece attributes from barcode scans, including postage. This data is compared to other transactional data to identify suspect mailpieces with postage variances. Under the PASS program — a coordinated effort between Intelligent Mail and Address Quality and Engineering — 2,390 PASS units will be installed at 2,385 delivery units. However, this effort is focused on domestic mail and currently does not address outbound international mail at the ISCs.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objectives were to assess controls over SIRVO-IODIS and the reliability of SIRVO-IODIS test results and assess the effectiveness of revenue protection programs for outbound First-Class Mail International and Priority Mail International.

We reviewed policies and procedures applicable to SIRVO-IODIS testing and shortpaid and unpaid international mail. Additionally, we interviewed management at headquarters and field locations and DCTs who conduct SIRVO-IODIS testing.

To determine whether SIRVO-IODIS testing was conducted properly, we observed the testing at the ISCs and the International/Network Distribution Center.

Additionally, we examined management's review of SIRVO-IODIS at field locations and headquarters.

To assess the completeness of SIRVO-IODIS sampling, we identified countries with large outbound mail volumes (weight and mailpieces) and verified that the SIRVO-IODIS sampling included outbound mail to those countries.

To assess the effectiveness of revenue protection programs, we analyzed FY 2009 and Q1, FY 2010 SIRVO-IODIS test results to determine the amount of shortpaid postage these tests detected at each location. Additionally, we interviewed management at the ISCs and the International/Network Distribution Center.

We conducted this performance audit from January through September 2010 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We discussed our observations and conclusions with management officials on August 3, 2010, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
Shortpaid Information- Based Indicia Stealth Postage	MS-AR-09-005 3	/17/200 9	\$99.0 million	Controls were not adequate to ensure the Postal Service detected and collected shortpaid and unpaid postage on IBI stealth First-Class, Priority, and Parcel Post mail. Management agreed with recommendations 1, through 4; and disagreed with recommendation 5, stating there are already procedures in place at processing plants to scan and identify duplicate and counterfeit IBI stealth postage.
Statistical Tests for Fiscal Year 2008 - Cost and Revenue Analysis	FF-AR-09-024	11/24/2008	\$0	Tests of the ODIS-RPW, IOCS, TRACS, and SIRVO-IODIS were generally conducted in accordance with established policies and procedures. However, errors were identified in 38 of 201 tests observed in 12 of the 14 districts. Management agreed with the recommendations.
Shortpaid Postage – Information- Based Indicia Parcel Post Mail	MS-AR-09-002 1	0/14/20 08	\$47.7 million	Controls were not adequate to ensure the Postal Service detected and collected shortpaid and unpaid postage on IBI Parcel Post mail. Management agreed with recommendation 2; partially agreed with recommendations 1, 3 and 4; and disagreed with recommendation 5.
Shortpaid Postage – Information- Based Indicia Priority Mail	MS-AR-09-001 1	0/10/20 08	\$96.6 million	Controls were not adequate to ensure the Postal Service detected and collected shortpaid and unpaid postage on IBI Priority Mail. Management agreed with recommendation 2; partially agreed with recommendations 1, 3 and 4; and disagreed with recommendation 5.

APPENDIX B: DETAILED ANALYSIS

Revenue protection programs are not adequate for outbound First-Class Mail International and Priority Mail International. The ISCs did not use consistent procedures to address mailpieces with shortpaid postage. Further, Statistical Programs does not provide SIRVO-IODIS test results that detail shortpaid postage detected at each ISC to international operations.

Revenue Protection Program

Each location uses a different procedure to process shortpaid mailpieces. Three locations had some revenue control measures in place for shortpaid international mail and two did not. Specifically,

- At the ISC, shortpaid mailpieces encountered during mail processing or SIRVO-IODIS testing are taken to a registry unit for processing.
- At the ISC, clerks in the Linear Sorter or Small Parcels and Rolls area that identify shortpaid mail place a yellow sticker and stamp "Postage Due" on the mailpieces. Clerks put the mailpieces into a container and dispatch it to a domestic mail processing plant for processing. Shortpaid mailpieces encountered during SIRVO-IODIS testing are also placed in a container and dispatched to the domestic mail processing plant.
- At the ISC, clerks take shortpaid mailpieces encountered during mail processing or SIRVO-IODIS testing to a domestic and foreign letter case area. Employees on limited-duty status process the mail according to international mail policies.

The and and ISCs do not have revenue protection procedures in place; therefore, shortpaid mailpieces identified during mail processing or SIRVO-IODIS testing are placed back into the mailstream without taking any collection action.

Shortpaid Postage

FY 2009 SIRVO-IODIS testing¹¹ identified shortpaid postage on 165,056 First-Class Mail International and 10,560 Priority Mail International mailpieces. The total shortpaid postage on these SIRVO-IODIS sampled mailpieces was \$139,732. There was no shortpaid postage identified on International Surface/Airlift and "other" categories of mail. These estimates are conservative in that mailpieces with stealth IBI and Permit

¹¹ FY 2009 SIRVO-IODIS testing also identified overpaid postage on 200,584 First-Class Mail International and 1,701 Priority Mail International mailpieces. The total overpaid postage on the SIRVO-IODIS mailpieces was \$106,323. This mail is returned to the mailstream for eventual dispatch.

Imprint postage, which represented 26 percent of the SIRVO-IODIS mailpieces tested, have no visible postage; therefore, SIRVO-IODIS testing cannot detect shortpaid postage on stealth IBI and Permit Imprint mail. Table 2 displays shortpaid postage at each location.

Table 2. Shortpaid Pieces and Postage by Location

		Shortpaid International Mail				
		Number of Mailpieces		Percentage		
1 4!	Tested	First-	Daile aite	T - 4 - 1	Shortpaid	Postage
Location	Mailpieces	Class	Priority	Total	At Location	Shortage
ISC	8,224	139	788	927	11.3%	\$3,514
ISC	618,482	52,244	4,043	56,287	9.1%	49,328
ISC	179,654	21,577	572	22,149	12.3%	20,537
ISC	379,243	24,737	869	25,606	6.8%	14,027
ISC	916,195	66,279	188	66,467	7.3%	38,642
International/ Network						
Distribution Center	15,188	80	4,100	4,180	27.5%	13,684
Totals 2,116,	986	165,056	10,560	175,616		\$139,732

Based on Postal Service estimates, there was \$26.9 million in revenue at risk from shortpaid postage on outbound First-Class Mail International, Priority Mail International mailpieces in FY 2009. This equates to approximately \$53.8 million in revenue at risk over a 2-year period. See Appendix C for our detailed analysis of this topic.

APPENDIX C: NON-MONETARY IMPACT

Based on SIRVO-IODIS testing data, Statistical Programs estimated the Postal Service incurred \$26.9 million in revenue at risk from shortpaid postage on outbound First-Class Mail International and Priority Mail International. To develop their estimate, the Postal Service analyzed, by destination country, outbound international mail that was eligible for SIRVO testing. They also factored in the 5 percent discount provided to Priority Mail International mailers using Click-N-Ship®, PC Postage or an approved IBI metering system.

To verify the Postal Service's estimate, we reviewed their methodology and performed a similar analysis using FY 2009 and Q1, FY 2010 First Class Mail International and Priority Mail International revenue and pieces. Our analysis identified approximately \$35.1 million in revenue at risk from shortpaid postage on First-Class Mail International and Priority Mail International. However, we believe the lower Postal Service estimate is more accurate because it factors in destination country outbound mail flows and the 5 percent discount for Priority Mail International mailpieces.

Table 3. Calculation of Revenue at Risk

	Amount
Shortpaid Revenue for First-Class Mail International:	\$20,490,801
Shortpaid Revenue for Priority Mail International:	6,416,785
Total Revenue at Risk:	\$26,907,586

We also project the Postal Service has an additional \$53.8 million in revenue at risk over a period of 2 years. If management implements controls to detect and collect shortpaid postage on this mail they will mitigate this risk (see Table 4).

Table 4. Calculation of Additional Revenue at Risk

	Amount
Revenue at Risk:	\$26,907,586
Over a 2 year period:	X 2
Total Revenue at Risk:	\$53,815,172

APPENDIX D: MANAGEMENT'S COMMENTS

FINANCE



September 20, 2010

LUCINE M. WILLIS

SUBJECT: Draft Audit Report – Controls Over Systems for International Revenue and Volume, Outbound and International Origin-Destination Information System (Report Number CRR-AR-10-DRAFT)

We have read the Draft Audit Report – Controls Over Systems for International Revenue and Volume, Outbound and International Origin-Destination Information System (Report Number CRR-AR-10-DRAFT). Here are the management responses.

Recommendation 1:

Develop a quarterly short paid postage report for outbound First-Class Mail and Priority Mail International and provide this report to Global Business Systems and Intelligent Mail Planning and Standards.

Response:

Management agrees with the recommendation and will provide this report beginning Quarter 4, EV2010

Recommendation 2:

Implement procedures to use System for International Revenue and Volume, Outbound and International Origin-Destination Information System test results to monitor short paid postage at each International service center.

Response:

We agree with this recommendation. Procedures for using the SIRVO-IODIS system data in the International Service Centers will be standardized and disseminated to each facility by January 31, 2011. Statistical Sampling will leverage domestic best practices, where applicable, to implement the process improvements necessary to monitor short paid mail classes. Follow up will be performed by Global Business and Statistical Sampling groups.

Recommendation 3:

Establish revenue protection procedures at the Centers.

Response:

We agree in part with this recommendation. Presently the USPS is unable to fully establish revenue protection procedures at the operational impact. The International Service Centers (ISC) are not acceptance units and are not equipped with the technology, scales, and rate information to determine short paid Items.

475 L'ENFANT PLAZA SW WASHINGTON DC 20260-5000 WWW.USPS.COM However, if items are presented by Statistical Programs data collectors as short paid to an ISC employee then they can handle that item according to the short paid policy in the T5 handbook. The T5 manual is being updated and the short paid policy will be published by February 28, 2011.

Recommendation 4:

Assess the viability of extending enhanced revenue protection programs to outbound international mail, similar to the new procedures for domestic mail.

Response:

Management agrees with this recommendation. The report cites the example of Intelligent Mail's new revenue protection procedures. These procedures have been implemented for domestic package/parcel mail generated by PC Postage and, is adopted for operational processes at delivery units to intercept and adjudicate suspect short paid mail. A collaborative effort with Global Business Systems will facilitate an assessment of the viability of extending enhanced revenue protection programs to outbound international mail. The target completion date will be April 30, 2011.

We have no objections to this report being released under the Freedom of Information Act.

Stephen M. Dearing

Ronald Poland

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Manager, Intelligent Mail Planning and Standards

Pranab Shah

Vice President and Managing Director, Global Business

Cc: Manager, Corporate Audit and Response Management