Office of Inspector General | United States Postal Service

Audit Report

Accuracy of Surface Visibility Scans and Reporting

Report Number 19-024-R20 | March 5, 2020

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Highlights

Objective

The objective of our audit was to evaluate the accuracy of Surface Visibility scans and reporting for Highway Contract Route (HCR) and Postal Vehicle Service (PVS) trips. This audit was requested by the Postal Service's Surface Logistics group.

The U.S. Postal Service's surface transportation network is managed locally and transports mail and equipment to and from Postal Service facilities daily. Surface transportation includes HCR, PVS, maritime, and rail service contracts. The Postal Service uses HCRs to transport mail and other products between plants and other designated stops for distances generally over 50 miles. PVS operations are internally operated by the Postal Service and trips are generally within a 50-mile radius of Postal Service facilities.

Surface Visibility Web 2.0 (SVweb) provides the Postal Service with real-time data and reporting on the movement of HCR and PVS trucks in the surface transportation network. Expeditors at mail processing facilities are responsible for the on-time dispatching and routing of mail for transportation. Expeditors use handheld scanners to scan trailer barcodes which record trip arrival and departure times.

When trucks are late, expeditors select a delay reason code in the scanner (either a Postal Service or contractor delay reason) to provide visibility in SVweb that reflects why the trip was late. Contractors can be assessed penalties for late trips if they do not correct deficiencies after notification by the Postal Service.

In April 2019, headquarters and area management informed plant management that the goal was to have no late trips; therefore, all trips should depart and arrive to their destinations on-time. Plant management is accountable for late trips and required to explain why late trips occurred during daily meetings with area personnel. They must also prepare plan of action reports for the Chief Operating Officer to review in order to avoid late trips in the future. In addition, plant management's performance is measured using metrics from the National Performance Assessment (NPA) including the Trips on Time indicator.

We visited six mail processing facilities in the Capital Metro, Great Lakes, Western, and Pacific Areas from October through November 2019. We observed the scanning of HCR and PVS trucks arriving and departing, as well as which late reason codes were used for late trips. We also interviewed plant management, supervisors, network specialists, and expeditors, and reviewed SVweb data.

Findings

The Postal Service is not accurately reporting HCR and PVS truck arrival and departure times. While personnel are properly scanning trip arrival and departure times, we found employees at the six mail processing facilities we visited were manually editing the arrival and departure scan times in SVweb to show trips as on-time when they were actually late. In fiscal year (FY) 2019, 80,795 (0.23 percent) of nearly 35 million trip scans were manually edited from late to on-time in SVweb.

We also found that certain mail processing facilities were moving away from manually editing arrival and departure times to editing scheduled trip times instead. Employees were editing PVS scheduled trip times at two of the six facilities we visited to later times so that trips appeared to be on-time when they were actually late. The Postal Service only began tracking edited scheduled trip times in August 2019. For example, at one mail processing facility we visited, local employees made 671 manual edits to arrival and departure times in August 2019, but only made 275 manual edits in September 2019 (a decrease of about 59 percent). However, local employees edited 3,074 scheduled trip times in August 2019 and 5,722 scheduled trip times in September 2019 (an increase of 86 percent).

This occurred because plant management requested that employees minimize late trips. By doing so, plant management could avoid explaining why late trips occurred during daily meetings with area personnel and preparing plan of action reports. This practice could also help plant management meet their NPA goal for the Trips on Time indicator. We referred this issue to the Office of Investigations for further review.

Additionally, there are inadequate controls over who can make manual edits in SVweb. SVweb allows users with certain system access to edit arrival, departure, and scheduled trip times. We identified managers, supervisors, specialists, expeditors, acting supervisors, and a vehicle clerk with access to make edits in SVweb. Further, there is no guidance on when it is appropriate to edit these times and SVweb does not require a manager's approval or justification explaining why a manual edit was made.

Trips on Time is an important metric the transportation network uses to measure performance. Data integrity becomes an issue when trips and schedules are manually edited from late to on-time. Using inaccurate data to support management conclusions puts the Postal Service at risk of making operational decisions that are incorrect and can negatively affect the transportation network.

Recommendations

We recommended management:

- Issue supplemental guidance on manually editing arrival, departure, and scheduled trip times in SVweb.
- Determine whether manual edits to arrival, departure, and scheduled trip times in SVweb should be included when calculating the NPA goal for Trips on Time.
- Implement controls in SVweb to ensure only properly authorized personnel are making appropriate manual edits in Surface Visibility Web 2.0.

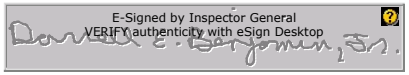
Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

March 5, 2020

MEMORANDUM FOR: ROBERT CINTRON
VICE PRESIDENT, LOGISTICS

JEFFREY JOHNSON
VICE PRESIDENT, ENTERPRISE ANALYTICS



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

SUBJECT: Audit Report – Accuracy of Surface Visibility Scans and Reporting (Report Number 19-024-R20)

This report presents the results of our audit of the Accuracy of Surface Visibility Scans and Reporting.

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

Attachment

cc: Postmaster General
Corporate Audit Response Management

Results

Introduction/Objective

This report presents the results of our audit of the Accuracy of Surface Visibility Scans and Reporting. The objective of our audit was to evaluate the accuracy of Surface Visibility scans and reporting for Highway Contract Route (HCR)[1] and Postal Vehicle Service (PVS)[2] trips. This audit was requested by the Postal Service's Surface Logistic group.

Background

The U.S. Postal Service's surface transportation network is managed locally and transports mail and equipment to and from Postal Service facilities daily. Surface transportation includes HCR, PVS, maritime, and rail service contracts. The Postal Service uses HCRs to transport mail and other products between plants and other designated stops for distances generally over 50 miles. PVS operations are internally operated by the Postal Service and trips are generally within a 50-mile radius of Postal Service facilities.

Surface Visibility Web 2.0 (SVweb)[3] provides the Postal Service with real-time transportation updates and reporting on the movement of HCR and PVS trucks in the surface transportation network. Expeditors at mail processing facilities are responsible for the on-time dispatching and routing of mail for transportation. Expeditors use handheld scanners to scan trailer barcodes which records trip arrival and departure times.

When trucks are late, expeditors select a delay reason code in the scanner (either a Postal Service delay reason or contractor delay reason) to provide trip visibility in SVweb that reflects why the trip was late. Contractors can be assessed penalties for late trips if they do not correct deficiencies after notification by the Postal Service.

In April 2019, headquarters and area management informed plant management that the goal was to have no late trips; therefore, all trips should depart and arrive at their destinations on-time. Plant management is accountable for late trips and required to explain any late trips during daily meetings with area personnel and prepare plan of action reports for the Chief Operating Officer to review in order to avoid late trips in the future. In addition, plant management's performance is measured using metrics from the National Performance Assessment (NPA)[4] including the Trips on Time indicator.

> *"Headquarters and area management informed plant management that the goal was to have no late trips; therefore, all trips should depart and arrive at their destinations on-time."*

We visited six mail processing facilities in the Capital Metro, Great Lakes, Western, and Pacific Areas from October through November 2019. Specifically, we visited the Kansas City, MO, Baltimore, Detroit, Oakland, and Suburban Processing and Distribution Centers (P&DC); and the Linthicum Incoming Mail Facility (IMF). We observed the scanning of HCR and PVS trucks arriving and departing as well as the late reason codes being used for late trips. We also interviewed plant management, supervisors, network specialists, and expeditors, and reviewed SVweb data.

1 A route of travel served by a Postal Service contractor to carry mail in bulk over highways between designated points. HCRs generally do not deliver mail to individual customer addresses along the line of travel. HCRs make up the largest single group of transportation services used by the Postal Service and range from long-haul tractor trailers to box delivery routes.
2 A service operated by Postal Service employees to transport mail between mail processing facilities, post offices, post office branches, post office stations, detached mail units, various postal customers, and terminals. The PVS fleet includes cargo vans, tractors, and trailers.
3 A mobile-scanning application that enables Postal Service personnel at Surface Visibility-equipped sites to scan trays, tubs, and sacks of mail into containers and onto trailers and to track the mail across the surface network. Surface Visibility collects end-to-end data by linking multiple scans of a single asset to create visibility data to support planning, management, and optimization of the surface transportation network.
4 A web-based system that collects performance-related metrics from source systems across the organization. These metrics are translated into web-based balanced scorecards that can be used to monitor the performance of both the entire enterprise and of individual units across the nation. NPA is a standalone program which supports the Pay for Performance program and Performance Evaluation System.

Finding #1: Inaccurate Reporting of Truck Arrival and Departure Times

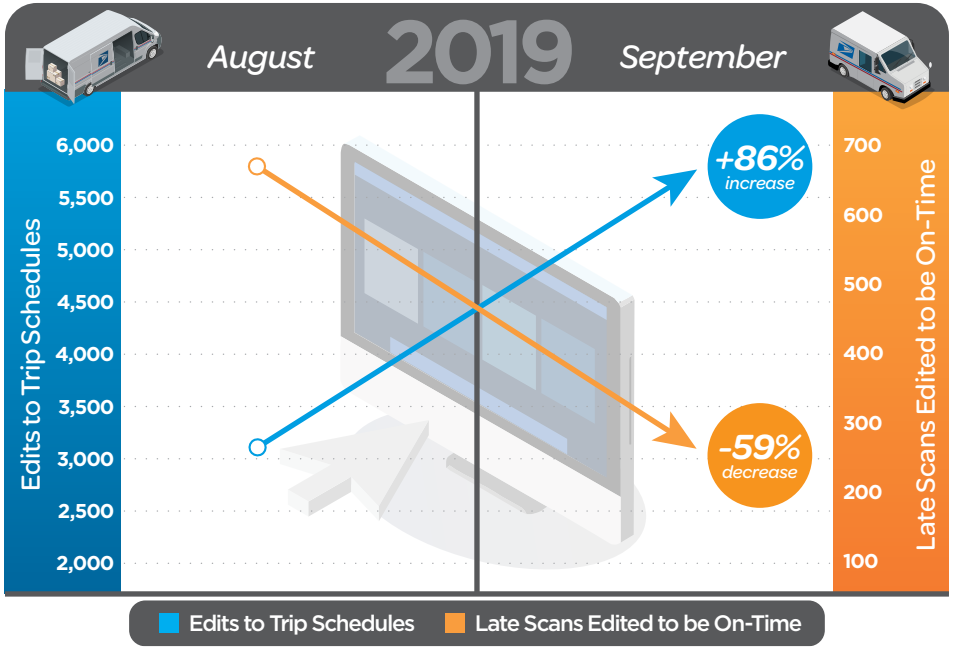
The Postal Service is not accurately reporting HCR and PVS truck arrival and departure times. While personnel are properly scanning truck arrival and departure times, we found employees at the six mail processing facilities we visited were manually editing arrival and departure scan times in SVweb to show trips as being on-time when they were actually late. In fiscal year (FY) 2019, 80,795 (0.23 percent) of the nearly 35 million trip scans were manually edited from late to on-time in SVweb.

> *"The Postal Service is not accurately reporting HCR and PVS truck arrival and departure times."*

We also found that certain mail processing facilities were moving away from manually editing arrival and departure times to editing scheduled trip times instead. Specifically, employees were editing PVS scheduled trip times at two of the six facilities we visited to later times so that trips appeared to be on-time when they were actually late.

For example, at one mail processing facility we visited, local employees made 671 manual edits to trip arrival and departure times in August 2019, but only made 275 manual edits in September 2019 (a decrease of about 59 percent). However, local employees edited 3,074 scheduled trip times in August 2019 and 5,722 scheduled trip times in September 2019 (an increase of 86 percent). See Figure 1. The Postal Service only began tracking edited scheduled trip times on August 12, 2019.

Figure 1. Edited Scans and Scheduled Trip Times at One Facility Visited



Source: SVweb and Enterprise Data Warehouse (EDW).

Guidance

The Postal Service was not accurately reporting HCR and PVS truck arrival and departure times because plant management requested that employees minimize late trips. By doing so, plant management could avoid explaining why late trips occurred during daily meetings with area personnel and preparing plan of action reports. Employees stated that plant management instructed them to edit late trip scans to be on-time at two of the six mail processing facilities we visited. However, we found employees at all six mail processing facilities had edited arrival and departure truck scans from late to on-time before and after our site observations, yet did not make many edits while the audit team was at the facility conducting observations (see Table 1).

Table 1. Manual Edits Before, During, and After Site Observations[5]

Facility	Before	During	After
Kansas City, MO P&DC	42	0	9
Baltimore P&DC	36	3	33
Suburban P&DC	83	8	71
Linthicum IMF	1	0	2
Detroit P&DC	4	0	3
Oakland P&DC	14	0	18

Source: SVweb and EDW.

Recommendation #1

We recommend the **Vice President, Logistics**, issue supplemental guidance on manually editing arrival, departure, and scheduled trip times in Surface Visibility Web 2.0.

National Performance Assessment Performance

Manually editing arrival, departure, and scheduled trip times in SVweb could also help plant management meet their NPA goal for the NPA Trips on Time indicator, which could impact their future pay and bonuses. We determined there was an 11 percent increase in the number of plant and transportation managers achieving the Trips on Time indicator target of 90 percent in FY 2019 compared to FY 2018 (see Table 2). We referred this issue to the Office of Investigations for further review.

Table 2. Percentage of Plant Management Achieving FY 2019 Trips on Time Indicator

FY 2018		FY 2019		Difference From FY 2018 to FY 2019	
Plant Manager	Transportation Manager	Plant Manager	Transportation Manager	Plant Manager	Transportation Manager
28%	25%	39%	36%	11%	11%

Source: NPA website.

Recommendation #2

We recommend the **Vice President, Logistics,** determine whether manual edits to arrival, departure, and scheduled trip times in Surface Visibility Web 2.0 should be included when calculating the National Performance Assessment goal for Trips on Time.

Inadequate Controls

Additionally, the Postal Service was not accurately reporting HCR and PVS truck arrival and departure times because there are inadequate controls over who can make manual edits in SVweb. SVweb allows users with certain system access to edit arrival, departure, and scheduled trip times. There are 7,169 employees representing 232 different position descriptions with manual edit permissions nationwide. We identified managers, supervisors, acting supervisors, specialists, expeditors, and a vehicle clerk with access to make edits in SVweb at the mail processing facilities we visited. Further, there is no guidance on when it is appropriate to edit these times and SVweb does not require manager approval or justification explaining why a manual edit was made.

5 The number of manual edits made to late arrival and departure scans to show as on-time 14 days before site observations, 14 days after site observations, and for the days the audit team was present at each site.

Recommendation #3

We recommend the **Vice President, Logistics**, implement controls to ensure only properly authorized personnel can make manual edits in Surface Visibility Web 2.0.

Recommendation #4

We recommend the **Vice President, Enterprise Analytics**, implement controls to ensure only appropriate manual edits are made in Surface Visibility Web 2.0.

Trips on Time is an important metric the transportation network uses to measure performance. Data integrity becomes an issue when trips and schedules are manually edited from late to on-time. Using inaccurate data to support management's conclusions puts the Postal Service at risk of making operational decisions that are incorrect and can negatively affect the network.

"Using inaccurate data to support management's conclusions puts the Postal Service at risk of making operational decisions that are incorrect and can negatively affect the network."

During our site visits, we observed expeditors selecting the correct late reason codes when a truck was late. For example, when the Postal Service caused an HCR truck to arrive late, the expeditor correctly selected the late reason code "Postal Delays" and they only selected "Contractor Delay" when the contractor was at fault for the delay.

Management's Comments

Management agreed with our findings and recommendations.

Regarding recommendation 1, management stated they will provide to the field specific instructions on handling manual edits of SVweb data. The target implementation date is April 30, 2020.

Regarding recommendation 2, management stated they have completed this and decided they will treat any manually edited trips as late trips when calculating NPA results. Management provided supporting documentation regarding the change to the NPA results.

Regarding recommendation 3, management stated they will ensure that only authorized personnel be able to make manual edits in SVweb. The target implementation date is April 30, 2020.

Regarding recommendation 4, management stated that they will assess SVweb access levels and implement controls accordingly. The target implementation date is September 30, 2020.

See Appendix B 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 recommendations in the report and management's corrective actions should resolve the identified issues. Regarding recommendation 2, management did not provide support during the audit that they had taken action but provided the required support with their management's comments; therefore, we are closing the recommendation with issuance of this report.

All recommendations require OIG concurrence before closure. The OIG requests written confirmation when corrective actions are completed. Recommendations 1, 3, and 4 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

The scope of this audit was the accuracy of SVweb scans and reporting for HCR and PVS trips during FY 2019. This was a nationwide audit.

To accomplish our objective, we:

- Judgmentally selected mail processing facilities for observation based on data relating to manually edited late trips.
- Visited six mail processing facilities including the Kansas City MO, Baltimore, Detroit, Oakland, and Suburban P&DCs; and the Linthicum IMF. The team observed the scanning of HCR and PVS trucks arriving and departing as well as which late reason codes employees were using for late trips. The team also interviewed plant management, supervisors, network specialists, and expeditors; and reviewed SVweb data.
- Reviewed manually edited SVweb arrival and departure trip scan data to determine who was making edits and who had the authority to make edits.
- Reviewed edited trip schedules.
- Reviewed NPA performance goals.

We conducted this performance audit from October 2019 through March 2020 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 February 10, 2020, and included their comments where appropriate.

We assessed the reliability of SVweb scan data for HCR and PVS trips by reconciling the audit teams' observations to the data. We tested the data sets for manual edits from EDW provided by the Postal Service and compared it to data from SVweb that the audit team pulled. We also tested our own queries in EDW to those that the Postal Service used. Finally, we interviewed Postal Service management and employees with extensive knowledge of the data and systems used in this report. We determined that the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

The OIG did not identify any prior audits or reviews related to the objective of this audit within the last five years.

Appendix B: Management's Comments

UNITED STATES POSTAL SERVICE

February 27, 2020

LAZERICK C. POLAND
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Accuracy of Surface Visibility Scans and Reporting
(Project Number 19-024)

Thank you for providing the Postal Service with an opportunity to review and comment on the recommendation contained in the draft audit report, Accuracy of Surface Visibility Scans and Reporting Reviews. Management in general agrees with the report's findings of fact and will work to address the issues raised in the audit.

Management obviously wants integrity in our scanning system and will take steps to eliminate improper edits and only have truly necessary manual edits take place.

OIG RECOMMENDATIONS:

Recommendation #1: The Vice President, Logistics, issue supplemental guidance on manually editing arrival, departure, and scheduled trip times in Surface Visibility Web 2.0.

Responsible Official: Director, Surface Transportation

Management Response/Action Plan:
Management agrees with this recommendation and will put out a Transportation Operations Management Order (TOMO) giving the field specific instructions on how to handle manual edits to any of the SV data.

Target Implementation Date: 4/30/2020

Recommendation #2: **The Vice President, Logistics**, determine whether manual edits to arrival, departure, and scheduled trip times in Surface Visibility Web 2.0 should be included when calculating the National Performance Assessment goal for Trips on Time.

Responsible Official: Director, Surface Transportation

MAILING ADDRESS:
475 L'ENFANT PLAZA SW
WASHINGTON DC, 20260

Management Response/Action Plan: This action had already been taken before this audit was complete. The COO gave directions that any manually edited trips be treated as late trips and to count against them in NPA results.

Target Implementation Date: Done

Recommendation #3: **The Vice President, Logistics**, implement controls to ensure only properly authorized personnel can make manual edits in Surface Visibility 2.0.

Responsible Official: Director, Surface Transportation

Management Response/Action Plan:
Management will work with the IT Surface Visibility group to ensure that only authorized personnel have the capability to make manual edits.

Target Implementation Date: **4/30/2020**

Recommendation #4: **The Vice President, Logistics, Enterprise Analytics,** implement controls to ensure only appropriate manual edits are made in Surface Visibility Web 2.0.

Responsible Official: Vice President, Enterprise Analytics

Management Response/Action Plan:
We agree with this recommendation. Management will do an assessment of **Surface Visibility Web 2.0** access levels and implement controls accordingly.

Target Implementation Date: September 30, 2020

Robert Cintron
Vice President
Logistics

Jeffrey Johnson
Vice President
Enterprise Analytics

cc: Manager, Corporate Audit Response Management
Director, Surface Transportation

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