Office of Inspector General | United States Postal Service

Audit Report

Global Positioning System for Highway Contract Routes

Report Number 20-198-R20 | September 29, 2020

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Highlights

Objective

Our objective was to assess the U.S. Postal Service's management of Highway Contract Route (HCR) compliance with the Global Positioning System (GPS) program.

In June 2016, the Postal Service developed the Enterprise Transportation Analytics (ETA) system which uses GPS technology to provide near real-time visualizations and reports of HCR vehicles and thus enabling management to evaluate HCR compliance with contract requirements. The Postal Service also replaced its existing GPS program with a new GPS technology solution covering HCRs, Postal Vehicle Service, and leased trailers.

The Postal Service planned to use the GPS program to measure HCR trailer usage, provide location visibility, estimate time of arrival, optimize travel routes, and improve service.

As of January 2020, the Postal Service managed 12,279 HCRs, which include 4,841 transportation routes and 7,438 Contract Delivery Service routes.

The Postal Service's goal was to have GPS devices installed and active on HCR vehicles covering trailers, mail carrying compartments on trailers, straight body or box trucks, and vans (over 600 cubic feet) by July 31, 2017.

Finding

The Postal Service did not effectively manage HCR compliance with the GPS program. Specifically, GPS information in transportation systems is not routinely updated and consistently maintained for HCRs.

These issues occurred because management did not provide adequate guidance, training, and oversight over the GPS program. Specifically, the Management Instruction for the HCR GPS program has not been updated since May 3, 2013, to reflect current program requirements. In addition, management did not provide guidelines and training on recording and itemizing program costs and maintaining accurate records. Management also did not provide adequate oversight of the GPS data or the timely activation of GPS devices.

Our survey of Postal Service transportation personnel and HCR suppliers also identified the need for improvement in the areas of roles and responsibilities, training, and communication with suppliers.

As a result, the Postal Service did not have an accurate count of the HCR transportation routes requiring GPS or the number of vehicles used on the routes, which prevents it from achieving its goal of having complete visibility of these routes. Further, the Postal Service is unable to accurately determine GPS program costs. We estimated the Postal Service incurred questioned costs and funds put to better use of about $593,000 annually.

As a result of our audit, the Postal Service began a new national HCR Trailer Validation initiative on June 25, 2020, requiring field transportation personnel to review, validate, and update SV barcodes and vehicle information. The target completion date is August 14, 2020.

> *"The Postal Service did not effectively manage HCR compliance with the GPS program."*

Recommendations

We recommended management:

- Update the *Highway Contract Routes Global Positioning System* management instruction with the current program requirements, roles, and responsibilities; define allowable costs; and communicate the updated management instruction to employees.
- Develop and execute a plan to ensure the accuracy GPS data and update and maintain accurate system records of vehicle quantity and type used for HCRs.

- Monitor and enforce timely activation of GPS devices purchased by HCR suppliers.
- Develop guidelines and provide training to contracting personnel for updating the GPS indicator and for recording, itemizing, and monitoring program costs, including validating the payment of prior program costs.
- Develop alerts and exception reports to monitor compliance with the GPS program.

Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

September 29, 2020

MEMORANDUM FOR: KELLY R. ABNEY
VICE PRESIDENT, TRANSPORTATION STRATEGY

ROBERT CINTRON
VICE PRESIDENT, LOGISTICS

MARK A. GUILFOIL
VICE PRESIDENT, SUPPLY MANAGEMENT

JEFFREY C. JOHNSON
VICE PRESIDENT, ENTERPRISE ANALYTICS

E-Signed by Inspector General
VERIFY authenticity with eSign Desktop

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

SUBJECT: Audit Report – Global Positioning System for Highway Contract Routes (Report Number 20-198-R20)

This report presents the results of our audit of the Global Positioning System for Highway Contract Routes.

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 Global Positioning System for Highway Contract Routes (Project Number 20-198) requested by the U.S. Postal Service Chief Logistics and Processing Operations Officer and Executive Vice President. Our objective was to assess the Postal Service's management of Highway Contract Route (HCR) compliance with the Global Positioning System (GPS) program.

Background

In June 2016, the Postal Service developed the Enterprise Transportation Analytics (ETA) system, which uses GPS technology to provide near real-time visualizations and reports of HCR vehicles thus enabling management to evaluate HCR compliance with contract requirements. The Postal Service also replaced its existing GPS program with a new GPS technology solution covering HCRs,[1] Postal Vehicle Service (PVS),[2] and leased trailers. The Postal Service utilizes the Transportation Contract Support System (TCSS) to manage transportation contracts and related activities. TCSS also contains transportation schedules as well as information on the quantity and types of vehicles used by the HCR suppliers.

The Postal Service planned to use the GPS program to measure HCR trailer usage, provide location visibility, estimate time of arrival, optimize travel routes, and improve service. The program relies on installed and activated GPS devices, which feed data into the Solutions Enterprise Asset Management (SEAM)[3] and ETA systems. These systems allow the GPS identification number and the Surface Visibility (SV) trailer barcode to be linked. The Postal Service uses SV in combination with GPS tracking to monitor and manage the movement of HCR vehicles within the surface transportation network. SV relies on mobile-scanning that enables Postal Service personnel at SV-equipped sites to scan trays, tubs, and sacks of mail into containers and onto trailers and tracks the mail across the surface network. SV 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 network.

The Postal Service's SEAM Trailer Management group is responsible for maintaining information on all HCR vehicles used to transport mail. GPS devices on trailers and trucks transmit (ping) specific event and location information to SEAM every 15 minutes while moving.[4] HCR drivers and the Postal Service must ensure the GPS identification number and SV trailer barcode are correct for each vehicle and trailer to ensure tracking accuracy. SEAM links the GPS device ID number for a specific trailer to the SV trailer barcode and then transmits their associated location data to ETA where it is tracked on the map.

The Postal Service's goal was to have GPS devices installed and active on HCR vehicles covering trailers, mail carrying compartments on trailers,[5] straight body or box trucks,[6] and vans (over 600 cubic feet) by July 31, 2017.[7] The program excluded the following routes:

- Contract Delivery Service routes which are similar to Postal Service rural letter carrier routes.
- Go Anywhere routes which are not regularly scheduled and use portable GPS devices.
- Tractor-only services routes which are vehicle contracts and do not have mail compartments for carrying or transporting mail.
- Service period-based routes which are only used during specific timeframes, such as peak season.

1 HCR suppliers service transportation routes and transport mail in bulk between designated points.
2 The Postal Service's owned and operated truck fleet. They normally transport mail within a 50-mile radius of Postal Service facilities.
3 The SEAM system designed to improve inventory tracking and visibility, implement forecasting and automatic replenishment capabilities, and standardize asset tracking and maintenance/repair functions.
4 Devices ping every four hours when stationary.
5 A tractor truck with a trailer that is not attached to the frame of the truck. The trailer doesn't have a front axle and most of the weight in the trailer is held up with the tractor or with a dolly, which is a detachable front axle.
6 A truck that carries cargo on the same chassis as the power unit and cab. A straight truck has a single frame that extends from the front to the rear of the truck and the axles are attached to the frame.
7 The program requirement was based on the GPS Supplier Notification letter dated April 19, 2017, and Postal Service contracting office training presentations dated, April 23, 2018, and updated February 11, 2020.

- Routes that use vehicles smaller than 600 cubic feet, such as pick-up trucks, minivans, station wagons, and airboats.

As of January 2020, the Postal Service managed 12,279 HCRs which include 4,841 transportation routes, and 7,438 Contract Delivery Service[8] routes, both of which are contained in the TCSS. See Table 1.

Table 1. Number of HCRs by Type

Route Type	Number of Routes
Transportation Routes	4,841
Contract Delivery Service Routes	7,438
Total HCRs	**12,279**

Source: U.S. Postal Service Office of Inspector General (OIG) analysis of Postal Service Contract Delivery Service Paybook January 2020.

HCR suppliers order GPS devices through AT&T and request reimbursement from the Postal Service for the cost of the devices and monthly service fees. The suppliers provide the Postal Service the GPS identification number and vehicle information to be recorded in SEAM. According to AT&T, as of March 2020, HCR suppliers have purchased 21,628 GPS devices since the inception of the program in June 2017.

Finding #1: Global Positioning System Compliance for Highway Contract Routes

We found the Postal Service did not effectively manage HCR compliance with the GPS program. Specifically, the Postal Service did not routinely update and consistently maintain GPS information for HCRs in the systems (TCSS, SEAM, and ETA) used to manage these routes.

"We found the Postal Service did not routinely update and consistently maintain GPS information for HCRs in the systems (TCSS, SEAM, and ETA) used to manage these routes."

Transportation Contract Support System

Our review of the TCSS vehicle information determined that 3,450 of the total 4,841 transportation routes[9] (71.3 percent) met the GPS requirements[10]. Further, our review identified the following issues in TCSS:

- Of the 4,841 routes, 1,573 (32.5 percent) were incorrectly classified as meeting or not meeting GPS program requirements. Specifically, management did not correctly identify that GPS was required for 1,096 routes that met GPS vehicle requirements. Management incorrectly identified 439 routes as meeting the GPS vehicle requirements. Further, 38 routes which were excluded from participation in the program contained the GPS requirement language in the contract Statement of Work [SOW] (see Table 2).

  HCR suppliers were expected to be compliant with GPS requirements as of July 31, 2017. The TCSS GPS indicator serves as an identifier for routes requiring GPS devices on vehicles. When the indicator is not marked, participation cannot be determined, and the Postal Service is unable to determine compliance with the program.

8 Routes serviced by individuals or companies to deliver and collect mail from individual customers on city or rural routes.
9 TCSS data as of January 2020.
10 On April 19, 2017, the Postal Service sent notification to HCR suppliers regarding the GPS program requirements.

Table 2. Transportation Routes in TCSS

Description	Number of Routes	Percentage
Routes lacking GPS Indicator	1,096	22.6
Routes incorrectly marked with GPS Indicator	439	9.1
Routes with incorrect GPS language in SOW	38	0.8
Sub Total – Routes with Errors	**1,573**	**32.5**
Routes correctly marked with GPS Indicator	2,354	48.6
Routes correctly excluded from GPS program	914	18.9
Total Routes	**4,841**	**100**

Source: OIG analysis of TCSS GPS indicator.

- The 3,450 HCR contracts that met GPS requirements were not updated and contained prior GPS ping frequency requirement of 30 minutes instead of the current requirement of 15 minutes.
- Prior GPS program costs covering 772 cellular devices and totaling $593,083 annually are still being paid for 126 routes. The prior GPS program required the use of cellular phones to transmit GPS data. These costs continued to be paid through contract renewals after the previous program was replaced in July 2017. The monthly costs for these devices ranged from $16.50 to $379.60 per device.
- GPS costs are not properly recorded, itemized, and supported. Specifically, monthly data service fees are not consistently paid to HCR suppliers and contained payment errors. The standard GPS monthly data plan payment allows for $4.52 per device before taxes; however, GPS data service fees paid to HCRs are inconsistent across suppliers and ranged from $2.50 to $72.27 per month per device including data plan, administrative, and installation costs. In addition, 18 HCRs with payments totaling $64,527 either had calculation errors or had their administrative costs commingled with other contract costs and were not properly itemized. See examples in Figures 1 through 3.

Figure 1 represents an error in calculation and payment. The documentation provided by the Postal Service supports the supplier requesting a total payment of $1,021.20 for the entire five-year contract with AT&T. The Postal Service should have made an annual payment of $204.24 based on the supporting documentation; however, it paid the supplier $1,021.20 annually from July 2017 to present. If the Postal Service does not correct the payment calculation, the supplier will continue receiving an annual overpayment of $816.96 until the contract ends in 2023.

Figure 1. Example of Calculation Error in GPS Costs

LINE ITEM	DESCRIPTION	ANNUAL UNITS	UNIT COST	ANNUAL COST
4	GPS SERVICE	1.00	54.24000	$54.24
	MISCELLANEOUS	1.00	4580.12000	$4,580.12
	GPS DATA PLAN ($85.10 X 12 MONTHS) X 1	12.00	85.10000	$1,021.20
		TOTAL		$5,655.56

Source: TCSS Cost Worksheet.

Figure 2 represents commingled costs of parking, office space, cell phone, and GPS expenses. We requested supporting documentation and the Postal Service's Supply Management contracting office was unable to provide documentation for the itemized costs. As a result, we could not determine GPS costs.

Figure 2. Example of Commingled Costs and Missing Documentation

LINE ITEM	DESCRIPTION	ANNUAL UNITS	UNIT COST	ANNUAL COST
5	PARKING, OFFICE SPACE CELL GPS			$4,500.00
		TOTAL		$4,500.00

Source: TCSS Cost Worksheet.

Figure 3 represents costs, which did not have proper itemization or supporting documentation in the contract files. This cost of $50,000 included about $16,000 in prior GPS program costs and the remaining $34,000 was not itemized. We requested the supporting documentation and the contracting office was

unable to provide support. Based on our calculations, the GPS costs for the 15 vehicles would be $813.60[11] annually compared to the payment of $50,000.

Figure 3. Example of GPS Costs Not Itemized and Missing Documentation

LINE ITEM	DESCRIPTION	ANNUAL UNITS	UNIT COST	ANNUAL COST
4	GPS FOR 15 VEHICLES MONTHLY	16.00	3125.00000	$50,000.00

Source: TCSS Cost Worksheet.

- Contracts reflected only the minimum vehicle requirements for the routes but not the actual number of vehicles used by HCR suppliers. For example, an HCR supplier contract requires a minimum of 200 vehicles, but the supplier purchased and received reimbursement for 312 GPS devices. As of March 2020, only 265 of the 312 GPS devices were activated and had activity in ETA. Due to inconsistent vehicle information in the TCSS and SEAM systems, management cannot effectively ensure compliance with program requirements.
- Vehicle type information was not accurately recorded in TCSS to identify GPS program participation. For example, one supplier had six vehicles classified as box trucks and trailers in SV; however, they were classified as vans in TCSS. This level of data inconsistency impacts the ability to easily identify vehicles requiring participation in the program.

Solutions Enterprise Asset Management

Our review of SEAM data revealed there were 2,249 routes as of March 2020 and 1,743 of these routes met GPS requirements. We compared the routes in SEAM against TCSS and identified 506 routes in SEAM that contained errors. These errors included routes that are expired in TCSS but are active in SEAM, invalid route numbers that did not reconcile with TCSS data, routes that are excluded from the GPS program such as Contract Delivery Service and Go Anywhere routes, and routes that did not meet the GPS requirements (see Table 3).

Furthermore, 1,707 routes which met the GPS requirement were not recorded in SEAM. Inaccurate SEAM data could adversely impact the Postal Service's ability to gain optimum visibility into its transportation network.

Table 3. Routes in SEAM

Routes	Number of Routes
Expired Routes	390
Invalid Route Numbers	10
Contract Delivery Service Routes	6
Go Anywhere Routes	1
Routes not meeting GPS Requirement	99
Sub Total	**506**
Met GPS Requirement	1,743
Total Routes in SEAM	**2,249**
Routes not recorded in SEAM	**1,707**

Source: OIG analysis of SEAM data.

Our review of GPS purchase data supplied by AT&T as of March 2020 determined that a total of 21,628[12] GPS devices have been purchased by HCR suppliers since the inception of the program in June 2017. However, 6,739 GPS identification numbers (31.2 percent) are not recorded in SEAM (see Table 4). Postal Service logistical systems such as ETA and SV rely on the accuracy of data from SEAM to effectively manage and optimize routes. SEAM data is used

> *"Inaccurate SEAM data could adversely impact the Postal Service's ability to gain optimum visibility into its transportation network."*

11 We determined costs by multiplying 15 vehicles by the $4.52 monthly cost per device by 12 months to determine annual cost for the new program.
12 One transportation route could require multiple vehicles.

in conjunction with SV scans from Postal Service facilities to track trailers. Combined with data from ETA, these scans show the transportation paths of each mailpiece from Postal Service facilities to its final delivery destination.

Table 4. Purchased GPS Devices

GPS Device Data Source	Number of GPS Devices	Percentage
Devices Recorded in SEAM	14,889	68.8%
Devices Not Recorded in SEAM	6,739	31.2%
AT&T Total	**21,628**	**100%**

Source: OIG analysis of AT&T and SEAM data.

Furthermore, our analysis of January 2020 SV data found that 2,224 of 26,251 vehicles (8.5 percent) had more than one unique SV trailer barcode.[13] Each vehicle should have one unique SV trailer barcode that links it with the GPS identification number in SEAM. Multiple SV trailer barcodes make it difficult to track trailer movement. See Table 5 for examples of vehicles with multiple barcodes in SV. The Postal Service relies on SV trailer barcode information to gain visibility of trailer movement and monitor trailer utilization in the SV system.

Table 5. Examples of Vehicles with Multiple SV Trailer Barcodes

Supplier	Vehicle Number[14]	SV Trailer Barcode
HCR Supplier 1	0702	99T000000284057
		99T000000398426
		99T000000398432
HCR Supplier 2	2553169	99T000000186571
		99T000000228858
HCR Supplier 3	008890	99T000000475499
		99T000000536133
HCR Supplier 4	107053	99T000000257870
		99T000000271845
HCR Supplier 5	07Z53C0308	99T000000450414
		99T000000545275

Source: OIG analysis of SV January 2020 data.

Enterprise Transportation Analytics

When reviewing the ETA system, we found that there are alerts or exception reporting mechanisms to notify Postal Service personnel and HCR suppliers of possible compliance issues such as inoperable or inactive GPS devices. The ETA system has two exception reports — the *National Operation Command Center (NOCC) No Ping* and *Outside District Geofence* reports. These reports do not directly identify HCR non-compliance with GPS requirements. For example, ETA data for March 31, 2020, identified 389 of 11,503 GPS devices (3.4 percent) with low battery voltage. However, there are no alerts to notify HCR suppliers or field transportation staff to take action before a GPS device goes offline. The Postal Service created dashboards for field personnel and suppliers to track GPS device battery conditions and trailer validations in SEAM for HCR trailers. However, based on our review of these reports, they do not provide alerts or sufficient actionable exception reports for initiating corrective action.

We also identified that 8,264 (38.2 percent) of the 21,628 devices purchased as of March 2020 were not linked in SEAM or did not show ETA activity. We reviewed payment data in TCSS and determined the Postal Service reimbursed HCR suppliers for 4,529 devices purchased between 2017 and 2018 with no ETA activity. See Table 6 for examples of non-active devices. Non-activation of GPS devices purchased by HCR suppliers may put these assets at risk.

13 Our review of January 2020 SV data relied on the accuracy of the supplier name and van number in the dataset. We considered each trailer barcode as one vehicle.
14 The trailer van number is a number stamped on the trailer for identification.

Table 6. Examples of GPS Devices Purchased with No Activity in ETA

Supplier	GPS Devices Purchased 2017-2018	Devices in ETA	Devices Not in ETA	Cost of Devices Not in ETA
HCR Supplier 6	2,100	1,482	618	$192,198
HCR Supplier 7	2,080	1,688	392	$121,912
HCR Supplier 8	405	67	338	$105,118
HCR Supplier 9	250	78	172	$53,492
HCR Supplier 10	800	635	165	$51,315

Source: OIG analysis of AT&T and ETA data as of March 2020.

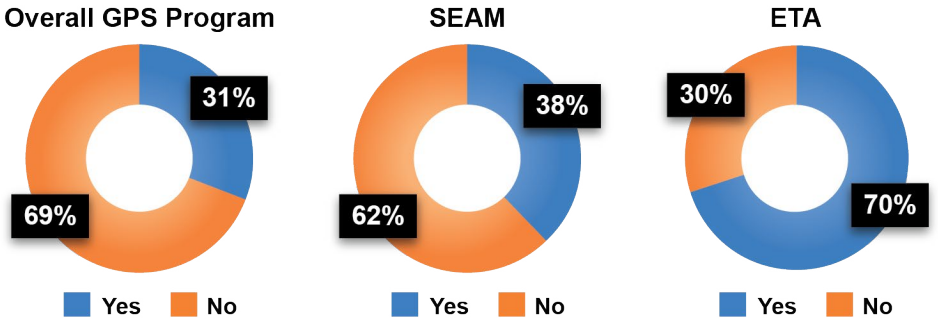
Roles and Responsibilities, Training, and Communication

We surveyed Postal Service transportation personnel and HCR suppliers and identified the need for improvement in the areas of roles and responsibilities, training, and communication with suppliers. We surveyed 992 transportation managers, network specialists, supervisors of transportation, and network operations staff to obtain information regarding the GPS program and received 259 responses (26 percent).

We inquired with Postal Service transportation personnel whether their roles and responsibilities had been communicated regarding the GPS program. The results of the survey revealed that 52 percent said their roles and responsibilities had not been communicated. See Appendix B for additional information on the survey results.

The survey also indicated many transportation personnel have not been trained in the systems dealing with the HCR GPS program. The survey results revealed that 69 percent of employees had not been trained in the overall GPS program and 62 percent were not trained in SEAM; however, 70 percent said they had been trained in the ETA system. See Figure 4 and Appendix C for comments from transportation personnel on their concerns and experiences with the GPS program.

Figure 4. GPS Program and Systems Training



Source: Survey Gizmo and OIG analysis results.

We also surveyed 1,593 HCR suppliers to determine whether they were aware of the GPS program and its requirements. We received 418 responses (26 percent) that identified the need for improving communication regarding the GPS program. In our survey, we asked suppliers if the Postal Service contacted them regarding their participation in the GPS program. Sixty-two percent of the suppliers stated they were contacted and 38 percent stated they were not contacted. See Appendix C for comments from HCR suppliers on their experiences with the GPS program.

"We found the Postal Service did not routinely update and consistently maintain GPS information for HCRs."

These issues occurred because management did not provide adequate guidance, training, and oversight for the GPS program. Specifically, Management Instruction PO-530-2013-1, *Highway Contract Routes Global Positioning System,* for the GPS program has not been updated since May 3, 2013, to reflect current GPS program requirements. For example, the guidance had not been updated to reflect the use of the new ETA system or the new GPS devices. The Management Instruction is used to communicate GPS program requirements, roles, and responsibilities, including program costs. In addition, management did not provide guidelines and training on recording and itemizing program costs

and maintaining accurate records in TCSS. Further, management did not provide adequate oversight of the data in TCSS, SEAM, and ETA systems and did not ensure timely activation of GPS devices.

As a result, the Postal Service does not have an accurate count of the HCR transportation routes requiring GPS or the number of vehicles used on the routes, which prevents it from achieving its goal of having complete visibility of these routes. We also estimated the cost of assets at risk for GPS devices that were purchased and not activated totaling about $1.4 million. Further, the Postal Service is unable to accurately determine GPS program costs. We estimated the Postal Service incurred questioned costs of about $1.2 million for fiscal years (FY) 2018 and 2019 for prior GPS program costs and funds put to better use of about $1.2 million for FYs 2021 and 2022.

> *"The Postal Service does not have an accurate count of the HCR transportation routes requiring GPS or the number of vehicles used on the routes, which prevents it from achieving its goal of having complete visibility of these routes."*

As a result of our audit, the Postal Service began a new national HCR Trailer Validation initiative on June 25, 2020, requiring field transportation personnel to review, validate, and update SV barcodes and vehicle information. The target completion date is August 14, 2020.

Recommendation #1

We recommend the **Vice President, Logistics,** update Management Instruction, *Highway Contract Routes Global Positioning System* with the current program requirements, roles, and responsibilities; define allowable costs; and communicate the updated Management Instruction to employees.

Recommendation #2

We recommend the **Vice President, Logistics** in conjunction with the **Vice President, Supply Management,** develop and execute a plan to ensure accuracy of the Global Positioning Systems data and update and maintain accurate system records of vehicle quantity and type used for Highway Contract Routes.

Recommendation #3

We recommend the **Vice President, Logistics,** monitor and enforce timely activation of Global Positioning System devices purchased by Highway Contract Route suppliers.

Recommendation #4

We recommend the **Vice President, Transportation Strategy,** develop guidelines and provide training to contracting personnel for updating the Global Positioning System indicator and for recording, itemizing, and monitoring program costs, including validating the payment of prior program costs.

Recommendation #5

We recommend the **Vice President, Logistics,** in conjunction with **Vice President, Enterprise Analytics,** develop alerts and exception reports to monitor compliance with the Global Positioning System program.

Management's Comments

Management generally agreed with the findings and partially agreed with the recommendations. Specifically, management agreed with recommendations 1, 2, and 3 but disagreed with recommendation 4, and partially agreed with recommendation 5. Further, management disagreed with the calculations used to determine the monetary impact. See Appendix D for management's comments in their entirety.

Regarding recommendation 1, management stated that they will address the recommendation through standard work instructions or the requirements definition instead of the management instructions. The target implementation date is January 30, 2021.

Regarding recommendation 2, management stated that they will develop standard work instructions to ensure the accuracy of the GPS data, while updating and maintaining accurate records by vehicle quantity and type used by HCRs. The target implementation date is January 30, 2021.

Regarding recommendation 3, management stated that they will develop standard work instructions to monitor and enforce the timely activation of GPS devices purchased by HCR suppliers. The target implementation date is November 30, 2020.

Regarding recommendation 4, management stated their disagreement indicating costs for providing GPS are general operating expenses not requiring special treatment in the contract and was only intended to be used for data analysis to confirm which suppliers had completed negotiations. Additionally, management stated this process was an expedited national effort to add GPS requirements to HCR contracts, which has been discontinued. Management offered an alternative of providing refresher training to contracting personnel for updating the GPS indicator and documenting negotiations with suppliers when adding GPS requirements to an existing contract. In subsequent correspondence on September 23, 2020, management stated they will review the contract documentation for the 126 contracts from the prior program and take appropriate action to correct discrepancies and pursue any newly identified overpayments. The target implementation date is March 31, 2021.

Regarding recommendation 5, management partially agreed, stating that exception reports are utilized and emailed to transportation personnel daily to address issues for batteries, SV barcodes, and no pings. Management also stated that they will continue to refine the alerts to monitor supplier compliance with the GPS program. The target implementation date is January 30, 2021.

Regarding the monetary impact, management disagreed with the calculation and stated that during the audit, and at the exit conference, they reiterated the former GPS program was a cellular system, which was replaced with the Orbcomm system and the contractual requirement for cell phones did not end. Accordingly, they requested the monetary impact should be reduced by the cost of cell phone coverage.

Evaluation of Management's Comments

The OIG considers management's comments responsive and corrective actions should resolve the issues identified in the report. While management originally stated they disagreed with recommendation 4 and partially agreed with recommendation 5, based on management's planned actions and our subsequent correspondence with management, we find their planned actions to be responsive to the recommendations.

Regarding the monetary impact, management disagreed with the calculation and requested it be reduced by the cost of cell phone coverage. However, management did not provide an explanation as to why the monthly costs ranged from $16.50 to $379.60 per device, which appeared to be excessive for some of the 126 contracts. Additionally, management did not provide supporting documentation for actual costs of the cell phone coverage for these contracts to be excluded from the monetary impact; therefore, we believe our calculations to be appropriate.

All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. All 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 scope was nationwide for HCR GPS compliance for FY 2019[15] and did not include PVS routes and leased trailers.

To achieve our objective, we completed the following:

- Reviewed prior OIG reports to identify prior coverage of GPS and HCRs.
- Interviewed Postal Service Supply Management and Surface Transportation personnel and the Western Area NOCC manager to determine GPS program requirements and compliance.
- Interviewed member of the National Star Route Mail Contractors Association.
- Reviewed GPS SOW requirements in TCSS.
- Identified GPS vehicle requirements and determined which transportation routes in TCSS required GPS.
- Determined which GPS devices purchased by HCR suppliers were installed, activated, and transmitting data.
- Determined costs incurred for the GPS program for HCRs including development of the ETA system since June 2016.
- Obtained data from SV for January 2020 to identify vehicles used in the surface transportation network.
- Obtained data from ETA, SEAM, and AT&T as of March 2020 to validate transmission of GPS data from HCR suppliers.
- Identified HCRs not in compliance with GPS requirements in TCSS, SEAM and ETA.
- Distributed survey questionnaires to HCR suppliers to obtain information about the GPS program and analyzed survey results.
- Distributed survey questionnaires to area and Transportation managers to obtain information about the GPS program and analyzed survey results.

We conducted this performance audit from March through September 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 enough, 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 September 1, 2020, and included their comments where appropriate.

We assessed the data reliability of the Postal Service's TCSS, SEAM, ETA, and SV systems data by interviewing Postal Service officials, tracing to source systems or documentation, reconciling selected fields among these systems, and recalculating the payment amounts. We determined the data were sufficiently reliable for the purposes of this report.

15 While our scope period was FY 2019, we used various data sets and date ranges to validate and reconcile participation in the GPS program was due to current data and retention availability, data size limitation.

Prior Audit Coverage

Report Title	Objective	Report Number	Final Report Date	Monetary Impact (millions)
Global Positioning System Trailer Visibility	Assess Postal Service's plans to improve the management of their owned trailers through the use of GPS data.	NL-AR-17-008	6/26/2017	$2.5
Management and Oversight of Highway Contract Routes	Determine if the Postal Service's management and oversight of highway contract routes is efficient and effective.	NL-AR-16-006	9/30/2016	$3.0

Appendix B: Survey Results

We conducted two surveys, one with Postal Service transportation personnel and another with HCR suppliers. Generally, the results of the two surveys revealed a neutral view of the program; however, the surveys also identified several areas needing improvement, such as roles, responsibilities, training, and communication with suppliers. We surveyed 992 transportation managers, network specialists, supervisors of transportation, and network operations staff to obtain information regarding the GPS program. We received 259 responses (26 percent) that identified the following (see Table 7).

Table 7. Postal Service Transportation Personnel Survey Results

Survey Questionnaire	Percentage of Survey Responses	
	Yes	No
Are you aware of the requirements for HCR suppliers to have GPS devices on all trailers and box trucks?	89%	11%
Has your roles and responsibilities been communicated regarding the GPS program?	48%	52%
Have you received training on the following?		
GPS Program	31%	69%
ETA	70%	30%
SEAM	38%	62%
Do you use the ETA system?	67%	33%
Are you responsible for creating and updating HCR trailer/box truck assets in SEAM?	10%	90%

Source: Survey Gizmo and OIG analysis results.

We surveyed 1,593 HCR suppliers to determine whether they were aware of the GPS program and its requirements. We received 418 responses (26 percent) that identified the following (see Table 8).

Table 8. HCR Survey Results

Survey Questionnaire	Percentage of Survey Responses	
	Yes	No
Are you aware of the Postal Service's GPS contractual requirements for trailers/box trucks?	86%	14%
Has the Postal Service contacted you regarding your participation with the GPS Program?	62%	38%
Have you purchased the GPS devices for trailers/box trucks?	69%	31%
Have you sent your trailers and/or box truck information to the Postal Service to associate your GPS unit with your contract(s)?	65%	35%
After you sent your information to the Postal Service, did you receive a confirmation that your GPS units have been associated?	58%	42%
Does your contract include monthly service fees for GPS data?	53%	47%

Source: Survey Gizmo and OIG analysis results.

Appendix C: Examples of Survey Comments

Table 9. Survey Comments Area and Field Transportation Staff

	Question: Please share your concerns or experiences related to the GPS program.
Positive Comments	I have found that the GPS system along with ETA, are very helpful in my everyday duties.
	We've received the GPS's during Census mailing time and were able to track the trips in the ETA system. I think they are very beneficial for mail tracking.
	I haven't had any issues with locating trailers I have searched for in ETA. Good system.
	The GPS system works great for tracking trailer locations.
	If all trailers are equipped with the GPS this helps when trying to locate late arrivals. We experienced a trailer that had broken down recently and were able to locate said trailer and were able to manipulate our staffing and adjust our productivity schedules. SEAMS theory was presented in a live training session and our TANS management team has a basic understanding of the system. Training has appeared in HERO and will be reviewed by our staff.
	It seems to be a very helpful system.

	Question: Please share your concerns or experiences related to the GPS program.
Negative Comments	Not many HCR trailers have GPS and the ones that do, we can't access them or see the tracking.
	Information on this is hard to come by. When I have inquired about it to others, questions are passed to a bunch of different people before I get an answer. Information on these should be posted somewhere accessible and available to everyone who is involved.
	Lack of training, Lack of communication from the contracting office. Lack of information for the contractors about equipment.
	GPS does not work for PVS or HCR. More often than not when trying to pull data from ETA there are no breadcrumbs. This happens on trips and units with GPS. Can no longer get breadcrumbs on HCR trips prior to depart scan. This makes it impossible to verify if a late trip was caused by the truck arriving late to facility.
	Contractors brokerage out many loads, these trailers do not have GPS. We lose visibility on these trips.

Table 10. Survey Comments – Highway Contract Route Suppliers

	Question: Please provide your experience with the GPS program
Positive Comments	Overall, we have all units installed and strive to work with the USPS to provide service at a superior level.
	Useful, and good to track the movement of the mail with the trucks.
	It's been great because you have full control of wear your trailer is.
	It has been challenging to get all of the information tied together by trailer and keep this information up to date. The people we have worked with at the USPS have been responsive and helpful, however.
	Good program. It would be great for the contractor to have access to the reports.
	We have had no problems with the GPS program.

	Question: Please provide your experience with the GPS program
Negative Comments	We have not been reimbursed for the expense of the GPS system or the monthly fees for having them for the last 3 years.
	We feel this is of no use to our company. It adds extra overhead to work, to oversee they are working at all times.
	A little disappointing. We have to pay extra to see the GPS information that the Postal Service already has access to. Not sure if the units are working or not. No instruction manual included with GPS units.
	It is difficult to keep up with the units. We have no visibility to know if they are working or not. The monthly billing, we receive from AT&T is more than what we were told.
	The GPS units are beginning to fail and in need of battery replacements. We have had to purchase a battery charger to charge and test the batteries.
	Not sure the USPS is even tracking our vehicles.
	Having trouble getting replacement batteries.

Appendix D: Management's Comments

UNITED STATES POSTAL SERVICE

September 17, 2020

LAZERICK POLAND
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Global Positioning Systems for Highway Contract Routes
(Project Number 20-198-DRAFT)

Thank you for providing the Postal Service with the opportunity to review and comment on the recommendations contained in the draft audit report, "Global Positioning System for Highway Contracts Routes." Management generally agrees with the majority of the report's findings. However, management disagrees with monetary impact as calculated.

Management disagrees with the monetary impact regarding question cost and funds put to better use. During the audit, and again at the exit conference, management informed the OIG that the former GPS program was a cellular system, and although it was replaced with the Orbcomm system, the contractual requirement for the driver to have a cell phone did not end. Accordingly, the questioned costs, and by extension the amount provided as funds put to better use, should be reduced by the cost of cell phone coverage that remains a requirement of the contract.

Monetary Impact

Recommendation	Impact Category	Amount
4	Questioned Costs[1]	$1,186,167
4	Funds Put to Better Use[2]	1,186,167
Total		**$2,372,334**

Further, while management agrees with most of the recommendations, management partially agrees to some of the recommendations stated in the audit report and will address each separately.

OIG RECOMMENDATIONS:

Recommendation #1:
"The Vice President, Logistics, update Management Instruction, Highway Contract Routes Global Positioning System with the current program requirements, roles, and responsibilities; define allowable costs; and communicate the updated Management Instruction to employees."

475 L'ENFANT PLAZA SW
WASHINGTON, DC 20260-4017
WWW.USPS.COM

Responsible Official:
Senior Director, Surface Logistics

Management Response/Action Plan:
Management agrees with this recommendation however will address the recommendation through standard work instructions or requirements definition instead of the Management Instructions.

Target Implementation Date:
1/30/2021

Recommendation #2:
"The Vice President Logistics in conjunction with the Vice President, Supply Management, develop and execute a plan to ensure accuracy of the Global Positioning Systems data to ensure accuracy of the Global Positioning data and update and maintain accurate system records of vehicle quantity and type used for Highway Contract Routes."

Management Response/Action Plan:
Management agrees with this recommendation. Management will develop standard work instructions as defined in the recommendation to ensure accuracy on updating and maintaining accurate GPS system records by vehicle quantity and type used in Highway Contract Routes.

Responsible Official:
Senior Director Surface Logistics

Target date:
1/30/2021

Recommendation #3:
"The Vice President Logistics monitor and enforce timely activation of Global Positioning System devices purchased by Highway Contract Route Suppliers."

Management Response/Action Plan:
Management agrees with recommendation. Management will develop standard work instructions to monitor and enforce timely activation of Global Positioning devices purchased by Highway Contract Route Suppliers.

Responsible Official:
Senior Director Surface Logistics

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Target date:
11/30/2020

Recommendation #4.
"The Vice President, Transportation Strategy, develop guidelines and provide training to contracting personnel for updating the Global Positioning System indicator and for recording, itemizing and monitoring program costs, including validating the payment of prior program costs."

Management Response/Action Plan:
Management disagrees with this recommendation as written. It is the position of management that costs associated with providing GPS are general operating expenses incurred by the supplier that do not require special treatment in the contract. The practice of identifying these costs was only intended to be used as a means to conduct data analysis to confirm which suppliers had completed negotiations with contracts staff. This process was a function of the expedited national effort to add GPS requirements to HCR contracts, and has already been discontinued. Management offers the following alternative for consideration: We will provide refresher training to contracting personnel for updating the Global Positioning Indicator in the current TCSS system, and documenting negotiations with suppliers when adding GPS requirements to an existing contract.

Responsible Official:
Manager Surface Transportation CMC

Target date:
March 2021

Recommendation # 5.
"The Vice President, Logistics, in conjunction with Vice President, Analytics, develop alerts and exception reports to monitor compliance with the Global Positioning System program."

Management Response/Action Plan:
Management partially agrees with recommendation 5. Exception reports are already utilized in the ETA system and daily reports are emailed to transportation daily to address issues relating to batteries, SV barcode and no pings. However, Management will continue to refine the alerts to monitor compliance with the Global Positioning Program.

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Responsible Official:
Senior Director Surface Logistics

Target Date:
1/30/2021

Robert Cintron
Vice President, Logistics

E-SIGNED by MARK GUILFOIL
on 2020-09-17 13:53:59 CDT

Mark Guilfoil
Vice President, Supply Management

Kelly Abney
Vice President, Transportation Strategies

Jeffrey Johnson
Vice President, Enterprise Analytics

cc: Manager, Corporate Audit Response Management
Senior Director Surface Logistics

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INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

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