Office of Inspector General | United States Postal Service

Audit Report

Transportation Network Optimization and Service Performance

Report Number 20-144-R20 | June 5, 2020

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Highlights

Objective

Our objective was to assess opportunities to optimize the U.S. Postal Service's transportation network and meet service performance goals.

Transportation is a core part of Postal Service operations, combining Postal Service-owned and operated assets with contractor operations. Every day a team of transportation and logistics professionals manage an average flow of over 390 million mailpieces throughout the Postal Service network, which includes 285 processing facilities and about 35,000 retail locations. Postal Service facilities are linked by a complex transportation system that depends on the nation's highway, air, rail, and maritime infrastructures. The success of each system affects the success of the others. This audit focuses on the surface and air networks, as they transport most of the mail.

In fiscal year (FY) 2019, the surface transportation network cost about $5.7 billion and transported mail mostly by highway contract routes (HCR) and Postal Vehicle Service (PVS) operations. Area and local transportation managers are responsible for operations, including continually reviewing surface routes to balance on-time service with costs.

The air transportation network costs were about $3.1 billion in FY 2019, consisting of contracted services from FedEx, commercial airlines (CAIR), UPS, supplemental charters, and terminal handling services (THS) operations. During FY 2019, FedEx transported [redacted] percent of total air volume, CAIR transported [redacted] percent, UPS transported [redacted] percent, and supplemental charters transported the remaining [redacted] percent. THS staff prepare the mail for tender to supplemental charters and FedEx. Postal Service Headquarters (HQ) controls operations and coordinates with area-level staff to execute the daily transportation plan.

The transportation network has key performance indicators (KPI) for the surface and air networks. Surface network KPIs include trips on time, extra trips, cancelled trips, unrecorded or incomplete trips, trips departed not arrived, and trailer utilization (percentage of trailer used). Air network KPIs include delivery scanning, network density, delayed mail, and use of bypass containers (include mail for a single destination requiring no FedEx sorting) and mixed containers (include mail for multiple destinations requiring sorting at a FedEx hub).

In a previous audit, *U.S. Postal Service Transportation Network Operations and Cost Optimization Practices* (Report Number 19XG002NL000-R20, dated November 7, 2019), we identified several factors that increased transportation costs, including the Operational Window Change – which reduced the transportation window, a growth in package services, fluctuating fuel costs, national long-haul and local driver shortages, a lack of competitive choices in air suppliers, and regulatory requirements.

This audit was designed to further determine the causes of transportation operational and service challenges. To do so, we conducted site visits at eight processing and distribution centers (P&DC) nationwide. We observed lower and better performing facilities which we selected by analyzing efficiency and service performance metrics for both transportation and mail processing operations. We also visited four THS facilities and selected the sites based on FedEx mail volume, delayed mail, and charter activity.

Our fieldwork was completed before the President of the United States issued the National Emergency Declaration concerning the novel coronavirus disease outbreak (COVID-19) on March 13, 2020. The results of this audit do not reflect process and/or operational changes that may have occurred as a result of the pandemic.

The Postal Service estimates significant revenue declines due to the COVID-19 pandemic and the resulting economic fallout, and it could run out of money by FY 2021. Therefore, it is vital for the Postal Service to focus on its financial health and address causes for costs increasing at a time when mail volumes decreased.

Findings

The Postal Service has opportunities to optimize its transportation network and improve service performance. Specifically, it routinely uses the surface and air networks to mitigate mail processing, delivery, and other delays (such as weather

and traffic). In FY 2019, the Postal Service spent over $550 million extra in transportation to mitigate delays that occurred in the network.

In the surface network, it is critical for processed mail to be available for transportation in a timely manner and for transportation contractors to meet their obligations. When operational issues exist, there is a downstream effect that causes management to face difficult and costly decisions. In FY 2019, mitigation efforts for surface transportation cost $410 million. These efforts included:

- $266 million in extra trips;
- $130 million in PVS overtime; and
- $14 million in late trips.

In the air network, when mail does not make its intended flight, it is tendered to the next available flight, even if that means moving it to another air carrier or waiting until the next day. In FY 2019, mitigation efforts for air transportation cost at least $140 million. These efforts included:

- $76 million in bedload trucks (moving mail to [redacted] hub for sortation);
- $60 million[redacted] charters [redacted] flights that were not originally scheduled); and
- $4 million in offloads (moving mail to a region with available airlift).

Even with transportation's mitigation efforts, the Postal Service did not meet most of its service performance targets in FY 2019. In FY 2019, the Postal Service met annual service performance targets more than once for only five (15 percent) of the 33 mail products.

Further, we identified causes that impacted the optimization of the surface and air networks to include misaligned scheduling, insufficient management oversight, imbalanced performance measurements, employee availability, and the inefficient allocation of mail.

Misaligned Scheduling

In both the surface and air networks, misaligned transportation scheduling hindered efforts to meet service performance and cost savings goals. Specifically, some surface transportation schedules were not consistently updated by management. In addition, operating plans and run plan generators (which help manage mail processing operations by projecting daily machine run) were not always followed and the plant processed mail past its clearance time, causing transportation delays.

In the air network, volume arrival profiles, which dictate the times plants send their mail to the THS site, were misaligned. Specifically, the volume arrival profiles did not allow time for the THS sites to build bypass containers, which reduce overall [redacted] costs.

Insufficient Management Oversight

Insufficient management oversight of day-to-day operations created inconsistencies and inefficiencies throughout the surface and air networks. We found there was inconsistent management oversight of HCR operations in the surface network and of THS operations in the air network.

During our surface network site visits, we observed HCR operations senior-level managers and front-line supervisors were generally not present during the evening and early morning shifts. At the eight P&DCs we visited, 76 percent of HCR trips ran during evening and early morning shifts, but only 25 percent of transportation supervisors worked during these shifts.

In the air network, THS sites were not issued Surface Visibility mobile scanners which were contractually required at three of the four THS sites we visited. The scanners are needed to track trucks and the mail volume coming into the facility. There was also a lack of consistency as to what information Postal Service THS liaisons (liaisons) reported to HQ and who was responsible for responding to identified anomalies.

Imbalanced Performance Measurements

In the surface network, National Performance Assessment (NPA) goals did not align with surface transportation's KPIs. The only NPA indicator that aligned with the six KPIs was trips on time. There were no NPA indicators for the other five KPIs and no target goals for the surface network's KPIs.

Employee Availability

In FY 2019, there was a PVS driver shortage of 1,247 drivers (12 percent) nationwide. We also noted a shortage of 56 surface network managers (6 percent) nationwide. Additionally, for the same time period, unscheduled sick leave and leave without pay comprised 2 percent of all PVS workhours (563,000 of 32 million).

Inefficient Allocation of Mail

The Postal Service could put more mail on CAIR, rather than using higher cost carriers. The Postal Service uses an allocation code to determine how much volume flies on each carrier and for each air stop, allowing it to maximize the use of the lowest cost carrier. However, we determined the code had inaccuracies, leading to a misallocation of First-Class Mail (FCM) [redacted], costing the Postal Service about $50 million annually. Additionally, density assumptions in the air allocation model did not match actual density in the network, which could lead to a misestimation of needed airlift.

The Postal Service could use more CAIR airlift in 56 of 63 air stops (89 percent). During FY 2019, the Postal Service flew about 60 million pounds of mail on [redacted] of insufficient CAIR capacity. The Postal Service has not considered discussing with CAIR providers the air stops for which it could use more airlift.

Finally, Transportation Security Administration (TSA) restrictions limit mailpieces flown on CAIR to under 16 ounces unless it is screened. The Postal Service mainly uses CAIR to transport FCM, which weighs 13 ounces or less. There are techniques, such as certified third-party canine screening and electronic detection, that the Postal Service could possibly use to expand its mail screening so that more mail classes could fly on CAIR.

Recommendations

We recommended management:

- Create reason codes in the Surface Visibility Web 2.0 system for why extra trips are being ordered.
- Require bedloads [redacted] charters, and offloads to be filled with mixed mail over bypass mail to the extent possible.
- Issue supplemental guidance to evaluate recurring late, canceled, and extra trips, and trips with consistently low trailer utilization; and update, remove, or consolidate trips; and adjust transportation schedules accordingly.
- Align volume arrival profiles with THS operations to allow time to build the planned amount of bypass containers.
- Increase management oversight for highway contract route operations for evening and early morning tours.
- Equip THS sites with Surface Visibility mobile scanners, develop a daily condition report template for Postal Service THS liaisons, and standardize the Postal Service's corrective action procedures in response to liaisons' reporting.
- Develop target goals for the surface transportation KPIs to reduce mitigation expenditures.
- Establish appropriate hiring incentives to increase the number of PVS drivers.
- Fix inaccuracies in the Air Allocation Model and institute a system of quality controls for the model to include periodic reviews for accuracy, a manual for how to use the model, and a log documenting changes made to the model.
- Increase use of the lowest cost carrier by updating density assumptions, requesting additional lift from commercial airlines in target markets, and coordinating with the TSA to expand screening.

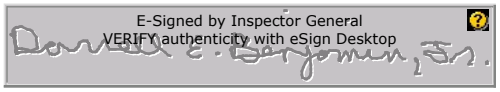
Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

June 5, 2020

MEMORANDUM FOR: ROBERT CINTRON
VICE PRESIDENT, LOGISTICS

JEFFREY BECKER
ACTING VICE PRESIDENT, PROCESSING AND MAINTENANCE OPERATIONS



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

SUBJECT: Audit Report – Transportation Network Optimization and Service Performance (Report Number 20-144-R20)

This report presents the results of our audit of Transportation Network Optimization and Service Performance.

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 self-initiated audit of Transportation Network Optimization and Service Performance (Project Number 20-144). Our objective was to assess opportunities to optimize the U.S. Postal Service's transportation network and meet service performance goals.

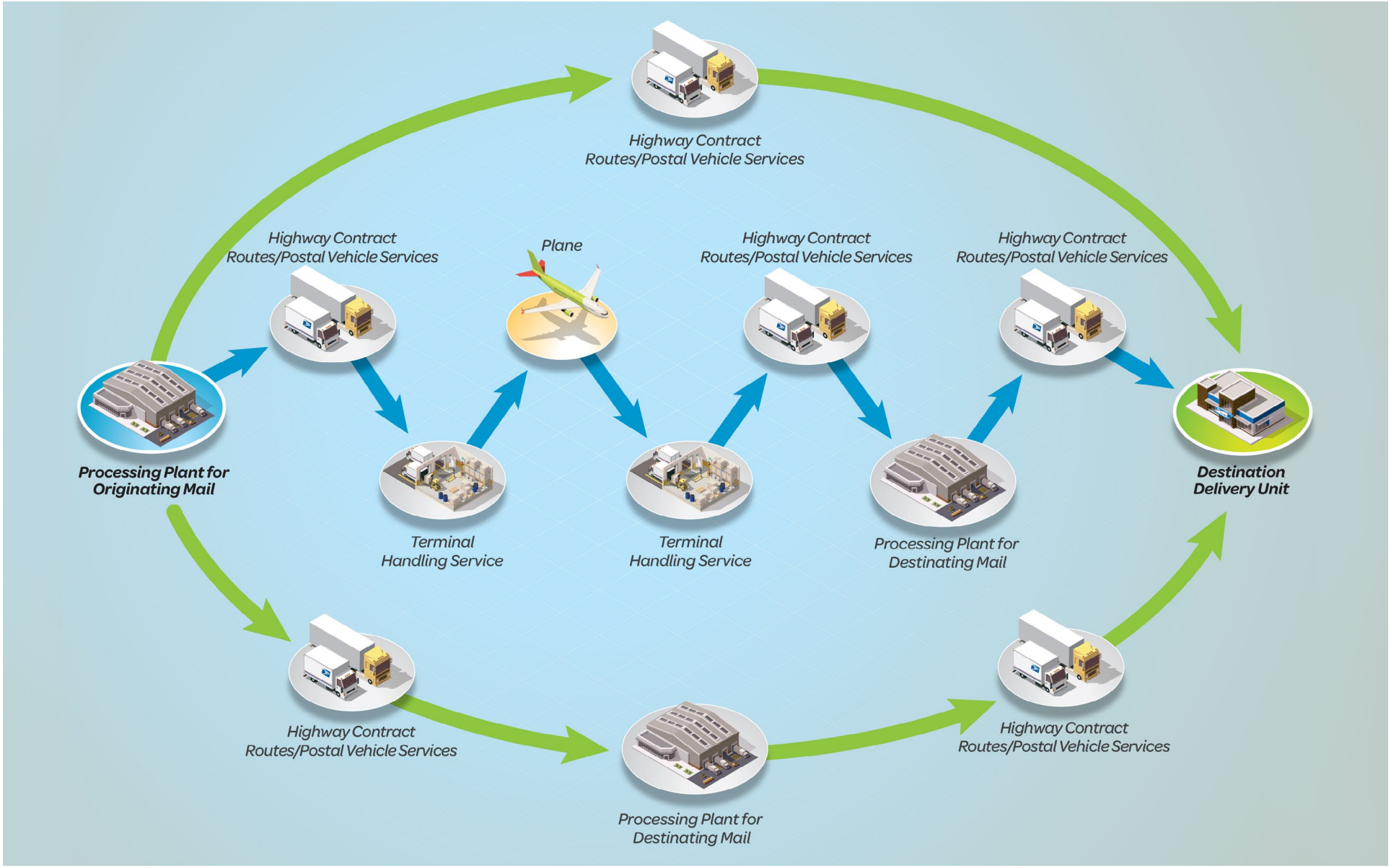
"Our objective was to assess opportunities to optimize the U.S. Postal Service's transportation network and meet service performance goals."

Background

Transportation is a core part of Postal Service operations, combining Postal Service-owned and operated assets with contractor operations. Every day a team of transportation and logistics professionals manage an average flow of over 390 million mailpieces throughout the Postal Service network, which includes 285 processing facilities and about 35,000 retail locations. These facilities are linked by a complex transportation system that depends on the nation's highway, air, rail, and maritime infrastructures. The success of the transportation system depends on the success of the mail processing and delivery systems.

This audit focuses on the surface and air transportation networks, as they transport most of the mail. Surface and air operations are intertwined in that the success of one impacts the other (see Figure 1).

Figure 1. Transportation Cycle



Source: U.S. Postal Service Office of Inspector General (OIG) analysis.

In fiscal year (FY) 2019, the transportation network cost about $9 billion.[1] Postal Service annual transportation costs have increased $1.9 billion (27 percent) between FYs 2015 and 2019 (see Table 1), despite an overall decline in mail volume of 35 billion pieces, or about 12 percent.

Table 1. Transportation Costs: FY 2015 to FY 2019 (in billions)

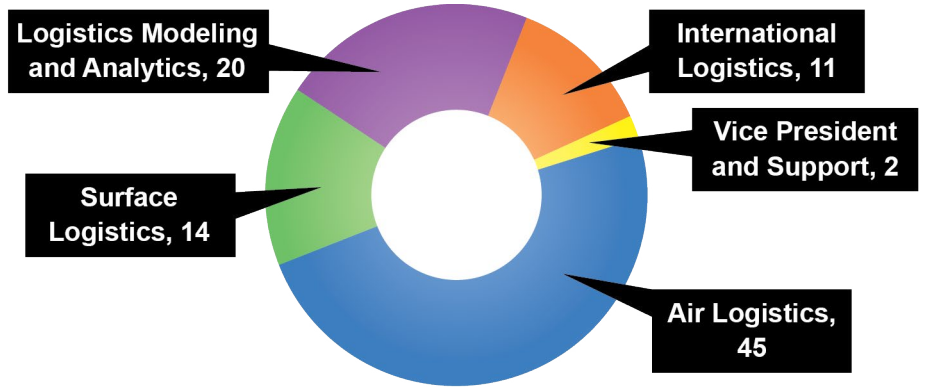
Category	2015	2016	2017	2018	2019	Total Cost Increase
Surface	$4.7	$4.9	$5.2	$5.5	$5.7	$1.0
Air	$2.2	$2.5	$2.5	$2.9	$3.1	$0.9
Miscellaneous[2]	$0.2	$0.2	$0.2	$0.2	$0.2	$0.0
Total	**$7.1**	**$7.6**	**$7.9**	**$8.6**	**$9.0**	**$1.9**

Source: Postal Service Form 10-K and OIG analysis of Electronic Data Warehouse (EDW) data.

In August 2019, the Postal Service divided the former Network Operations group into two groups: Processing and Maintenance Operations, and Logistics. The Vice President, Logistics, is responsible for nationwide transportation and logistics strategy, design, development, planning, support, policy, and optimization. Logistics is authorized 92 full-time equivalent positions (see Figure 2).

"Postal Service annual transportation costs have increased $1.9 billion (27 percent) between FYs 2015 and 2019."

Figure 2. Logistics Complement



Source: Postal Service Logistics as of August 2019.

This team of transportation and logistical professionals includes network specialists, operations performance analysts, data analysts, and operational research analysts. As of August 2019, Logistics had 12 vacancies (13 percent of the total logistics complement), with eight of the vacancies under Air Logistics (18 percent of the 45 Air Logistics positions).

Surface and air transportation operations are also managed in the field. Field positions include distribution network operations managers, Postal Service terminal handling services (THS) liaisons, employees at the Area National Operations Control Centers, and network specialists.

The surface and air networks have various key performance indicators (KPI). Surface network KPIs include trips on time, extra trips, cancelled trips, unrecorded or incomplete trips,[3] trips departed not arrived,[4] and trailer utilization (percentage trailer used).[5] Air network KPIs include delivery scanning,[6] network density, delayed mail, and using bypass (mail for a single destination that requires no FedEx sorting) and mixed containers (mail for multiple destinations which requires sorting at a FedEx hub).

1 These costs are only for domestic transportation, and do not include any regions outside of U.S. territories.
2 Miscellaneous includes mail transport equipment.
3 These are incomplete trip activities for which partial data was entered into the SV system.
4 Indicates the trip was recorded or scanned at the originating (outbound) facility, however, was not recorded or scanned at the destinating (inbound) facility.
5 Trailer utilization measures the cubic feet capacity used to transport mail and equipment based on 100 percent available floor space in the trailer.
6 Represents scanning of each handling unit and cargo container at the specified delivery service point. Carrier performance is measured against the contract requirements based upon transmitted delivery scan data.

Surface

In FY 2019, surface network costs were about $5.7 billion and the network transported mail mostly by highway contract routes (HCR) and Postal Vehicle Service (PVS) operations. An HCR is a route of travel served by a Postal Service contractor which carries mail over highways between designated points. The Postal Service used 12,244 HCRs to transport mail and other products between plants and other designated stops for distances over 50 miles. 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. HCRs generally do not deliver mail to individual customer addresses along the line of travel.

PVS drivers are career Postal Service employees who move mail among processing facilities, inner-city delivery offices, and local businesses and mailers. PVS operations are internally operated by the Postal Service. There were 11,800 PVS routes that are designed to transport mail in a 50-mile radius of their Postal Service location.[7] The American Postal Workers Union represents these drivers and the Collective Bargaining Agreement covers the work rules governing PVS operations. The costs for highway[8] and PVS increased in FY 2019 compared to FY 2018 (see Table 2).

Table 2. FY 2019 Highway and PVS Costs

Category	FY 2018 Costs	FY 2019 Costs	Total Cost Difference	Percentage Difference
Highway	$4,318,806,794	$4,516,712,142	$197,905,348	5%
PVS	$1,087,367,487	$1,147,907,544	$60,540,056	6%
Total	**$5,406,174,281**	**$5,664,619,686**	**$258,445,404**	**5%**

Source: EDW.

The surface transportation network is decentralized and managed locally by district and area personnel. It is primarily a fixed network that provides daily transportation to and from Postal Service facilities, regardless of mail volume. Area and local transportation managers are responsible for operations, including continually reviewing surface routes to balance on-time service with costs. Transportation management is critical to controlling surface transportation costs. The Postal Service uses Surface Visibility Web 2.0 (SVweb) to provide management with real-time, surface transportation information. The system tracks HCR and PVS trailers; shows early, on-time, late or cancelled trips; and identifies the mail products scanned on each trailer. The system also assists with developing or changing trip schedules and tracking trailer utilization.

"In FY 2019, air transportation network costs were about $3.1 billion."

Air

In FY 2019, air transportation network costs were about $3.1 billion and primarily consisted of five networks:[9]

- FedEx, which is the largest network, moved about [redacted] percent of all mail transported by air;
- Commercial airlines (CAIR), consisting of six airlines, provided available space on existing commercial passenger flights and moved about [redacted] percent of the mail. It is generally the most economical air transportation option;
- UPS, which has [redacted], transported about [redacted] percent of the mail;
- Supplemental charter carriers (charters), wherein the Postal Service rents all or part of a plane for point-to-point mail delivery, transported [redacted] percent of the mail; and
- THS staff prepare the mail for tendering to FedEx and supplemental charters.

7 As of July 2019.
8 This includes costs for HCRs, HCR fuel, service-wide surface, and leased trailers.
9 There are other supplemental programs, such as those covering Hawaii and Alaska, and air taxis covering remote areas including Montana and the Dakotas.

Air network costs have, overall, risen from FY 2018 to FY 2019. However, the costs of CAIR — the lowest cost carrier — decreased, while the amount spent on all other air networks increased (see Table 3).[10]

Table 3. FY 2018 and 2019 Air Network Costs by Provider

Provider	FY 2018 Costs	FY 2019 Costs	Percentag Difference
FedEx	[redacted]	[redacted]	[redacted]
UPS	[redacted]	[redacted]	[redacted]
Supplemental Charters	[redacted]	[redacted]	[redacted]
CAIR	[redacted]	[redacted]	[redacted]
Total	**$ 2,386,784,019**	**$ 2,544,614,560**	**7%**

Source: OIG analysis of Account Payable Excellence Invoices by Financial Report line 3R.

Air network operations are centrally managed at Postal Service Headquarters (HQ) for contracting and monitoring, planning (forecasting) mail assignment, and payment. Air Logistics establishes air volume thresholds, assigns mail to air carriers, develops and maintains air transportation models and systems, and monitors air transportation costs and performance. They also develop the daily air transportation plan and conduct a daily national meeting to discuss differences in forecasted and actual mail volume as well as local issues requiring mitigation.

In order to meet service standards, the Postal Service relies on contracted air carriers to transport certain mail. For CAIR and UPS, the Postal Service tenders its mail to an air preparation center managed by the airline. For FedEx and supplemental charters, the Postal Service manages the schedule for mail preparation at THS sites and provides oversight of THS operations. THS sites operate as stand-alone entities where staff unload the incoming mail on PVS and HCR transportation from Postal Service facilities and repack it into specialized containers that go onto the contracted airlift. The THS staff pack FedEx mail into bypass and mixed containers, based on destinating air stop, and only mail for a single destination can be sorted into a bypass container.

> *"Air network operations are centrally managed at Postal Service Headquarters (HQ)."*

In previous audit work,[11] we identified several factors that increased transportation costs, including the Operational Window Change – which reduced the transportation window, a growth in package services, fluctuating fuel costs, national long-haul and local driver shortages, a lack of competitive choices in air suppliers, and regulatory requirements.

This audit was designed to further determine the causes of transportation operational and service challenges. To do so, we conducted site visits at eight processing and distribution centers (P&DC) nationwide. We observed lower and better performing facilities[12] which we selected by analyzing efficiency and service performance metrics for both transportation and mail processing operations. We conducted site visits at P&DCs in Atlanta, GA; Chicago, IL; Cincinnati, OH; Hartford, CT; Los Angeles, CA; Las Vegas, NV; Coppell, TX;[13] and Salt Lake City, UT. We also conducted site visits at four THS sites in Coppell, TX; Salt Lake City, UT; Ontario, CA; and Los Angeles, CA. We chose the THS sites based on FedEx mail volume, delayed mail, and sites with charter operations.

Our fieldwork was completed before the President of the United States issued the National Emergency Declaration concerning the novel coronavirus disease outbreak (COVID-19) on March 13, 2020. The results of this audit do not reflect process and/or operational changes that may have occurred as a result of the pandemic.

10 Because THS operations service FedEx and supplemental charter routes, these costs are included in the costs of these network operations.
11 *U.S. Postal Service Transportation Network Operations and Cost Optimization Practices* (Report Number 19XG002NL000-R20, dated November 7, 2019).
12 We determined facilities to visit by analyzing transportation and mail processing efficiency and service performance metrics (e.g., late, extra, and cancelled trips; delayed mail; 24-hour clock indicators; service scores; and overtime) compared to nationwide averages.
13 The Coppell, TX, P&DC is called the North Texas P&DC, and the THS site in Coppell, TX, serves the Dallas-Fort Worth air stop.

The Postal Service estimates significant revenue declines due to the COVID-19 pandemic and the resulting economic fallout, and it could run out of money by FY 2021. Therefore, it is vital for the Postal Service to focus on its financial health and address causes for costs increasing at a time when mail volumes decreased.

> *"The Postal Service routinely uses the surface and air networks to mitigate mail processing, delivery, and other delays, resulting in additional transportation costs of over $550 million."*

The Postal Service has opportunities to optimize its transportation network and improve service performance. The surface network initiatives and the Ready Now → Future Ready initiatives[14] for the air network are cost focused. However, the transportation network is used as a mitigator in an attempt to meet service performance when anomalies occur, increasing costs within the transportation network. Furthermore, while optimization plans have resulted in some cost savings, they did not meet overall expected savings and transportation costs have continued to increase.

Finding #1: Transportation Mitigation

The Postal Service routinely uses the surface and air networks to mitigate mail processing, delivery, and other delays (such as weather and traffic), resulting in additional transportation costs of over $550 million. Even with transportation's mitigation efforts, the Postal Service did not meet the majority of its service performance targets in FY 2019. Specifically, they only met five (15 percent) of the 33 mail products' service performance goals. In FY 2018, the Postal Service met three (10 percent) of the 31 mail products' service performance goals.

In the surface network, it is critical for mail to be processed and available for transportation in a timely manner and for transportation contractors to meet their obligations. When trucks are late departing or arriving, dock personnel select a delay reason code (either a Postal Service or contractor delay reason) in a handheld scanner that enables SVweb to reflect why the trip was late. In FY 2019, the top delay reasons[15] were:

- **Dock operations** – includes congestion on the dock which causes an untimely loading of containers and/or trip dispatch and personnel issues, which cause a delay due to a lack of available plant operations staff, including dock personnel.
- **Processing operations**[16] – includes plant operation delays in sorting and/or building mail containers.
- **Contractor failure** – includes when a contractor unsatisfactorily performs a contracted service. Contractors can be assessed penalties for late trips, if they are at fault and do not correct deficiencies after notification by the Postal Service. In previous audits,17 we found the Postal Service could better manage HCR contractors' performance by holding them accountable when they fail to perform the scheduled transportation. We also plan to conduct additional future audit work in this area.

In FY 2019, these three delay reason codes accounted for 74 percent of the total late trips (see Table 4).

14 For the surface network, this includes Network Distribution Center initiatives (bedloading and pup trailers) and 2-Day hub and surface transportation center redesigns. For the air network, this includes using the lowest cost carrier, optimizing the use of bypass containers, and maximizing density in the air network.
15 Delay reason definitions are from the *Standard Operating Procedure for Delay / Irregularity Reasons*, dated November 13, 2019.
16 Includes mail processing and late processing reason codes.
17 *U.S. Postal Service Transportation Network Operations and Cost Optimization Practices* (Report Number 19XG002NL000-R20, dated November 7, 2019), *Highway Contract Route Irregularity Reporting – Chicago Network Distribution Center* (Report Number NL-AR-18-005, dated February 22, 2018), and *Highway Contract Route Irregularity Reporting – Jacksonville Network Distribution Center* (Report Number NL-AR-17-010, dated September 7, 2017).

Table 4. Top Network Failures Causing Late Trips in FY 2019

Delay Reason	Count of Late Trips	Percent of Total
Dock Operations	2,811,090	30%
Processing Operations	2,135,740	22%
Contractor Failure	2,076,237	22%
Total Top 3	**7,023,067**	**74%**
Total Late Trips	**9,461,450**	**—**

Source: SVweb.

When operational issues exist, there is a downstream effect that causes management to face difficult and costly decisions. They supplement regularly scheduled transportation with exceptional service.[18] For example, when mail processing operations do not process mail timely, managers may have to send trucks with low mail volume (low trailer utilization), call extra trips to transport late mail, use PVS overtime, or cancel trips when there is no mail available to transport. Issues with dock operations, such as congestion on the docks or lack of staffing, may cause managers to hold transportation, making it late and increasing costs. When contracted transportation does not arrive as scheduled, managers may have to call an extra trip. These mitigation efforts cost at least $410 million in FY 2019 (a 16 percent increase over FY 2018).[19] These efforts included:

- **Extra trips** – These are supposed to be infrequent, additional trips for an existing route, and they result in increased transportation costs.[20] In FY 2019, the Postal Service spent at least $266 million on extra trips.
- **PVS overtime** – PVS drivers are paid at one and one-half times the employees' hourly rate. Penalty overtime was paid, under specific conditions, at double the employees' hourly rate. In FY 2019, the Postal Service spent $130 million on PVS overtime and penalty overtime.
- **Late trips** – When the Postal Service holds a truck and the contracted driver departs after their scheduled time, the truck is late, and the Postal Service must pay the contractor. In FY 2019, the Postal Service spent $14 million on late trips.

During our site visits, we observed mail processing operations not processing mail timely and not enough dock personnel moving the mail. This caused mail to miss its last scheduled transportation trip, which led to management calling extra trips and using PVS driver overtime so the mail could be delivered to the delivery unit. In addition, on certain HCR trips, management held trucks to avoid an extra trip, but this made the HCR trip late. When the Postal Service holds an HCR trip and makes it late, it must compensate the contractor.

> *"When operational issues exist, there is a downstream effect that causes management to face difficult and costly decisions."*

The downstream effect of mail being transported late to delivery units overwhelmed the units and decreased the time they had to prepare mail for delivery since it came later than planned and led to carriers being out on the streets longer and coming back late to the units. In turn, PVS drivers had to wait for carriers to return from their routes and were late arriving to the processing facility with collections mail. In some cases, extra trips had to be called from the delivery unit to transport late collections mail to the processing facility.

In the air network, when mail does not make its intended flight, it is tendered to the next available flight, even if that means moving it to another air carrier or waiting until the next day. This delayed mail creates unanticipated volume in the network, for which the Postal Service does not have available airlift. To relieve

18 Additional transportation used to perform scheduled or back-up route operations (such as extra, detour, and late trips).
19 In the *U.S. Postal Service Transportation Network Operations and Cost Optimization Practices* (Report Number 19XG002NL000-R20, dated November 7, 2019), we identified costs were not allocated to the proper general ledger accounts and were understated. We recommended the Postal Service ensure authorized account numbers are used for exceptional service in the Service Change Request system. Postal Service management agreed with the recommendation with a target implementation date of July 31, 2020.
20 The *Postal Operations Manual* states extra trips should not be scheduled unless necessary to prevent serious delay of mail such as Express Mail, Priority Mail, or an increase in mail volume.

this excess volume and maintain planned operations, the Postal Service uses various means to transport excess volume to other regions or to [redacted] hub. The Postal Service sends bypass and mixed mail on the mitigation transportation, even though [redacted] sorts all mitigated mail as if it is mixed mail. While these efforts relieve excess and delayed capacity in certain air stops, they increase the Postal Service's transportation costs and cause THS sites to miss their bypass container goals. In FY 2019, mitigation efforts for air transportation cost at least $140 million.

The Postal Service employs three main mitigation techniques:

- **Bedload trucks –** These are prepared at Postal Service facilities or THS sites and arrive at the [redacted] hub for sortation. Processing plants take the mail and place it loosely in a trailer.[21] The Postal Service spent $76 million on [redacted] bedload trucks in FY 2019.
- [redacted] **charter flights –** These are [redacted] hub for sortation. In FY 2019, the Postal Service spent $60 million on [redacted] charters.
- **Offload trucks –** These are when a Postal Service plant loads containerized mail into a trailer destined for a non-local THS site that has additional airlift.[22] This mail will be sorted into mixed containers at the THS site and sent to the [redacted] hub for sortation. In FY 2019, the Postal Service spent $4 million[23] on offload trucks to support air operations.

Mitigation transportation is loaded earlier in the night than the rest of the mail. This ensures timely tender to [redacted] hub or other regions of the country. During our site visits, we observed plant management handle the challenge of meeting the earlier cut-off time in two ways:

- When the Salt Lake City THS site had [redacted] charter to handle excess mail capacity, the Auxiliary Sorting Facility did not sort for bypass operations, instead preparing all mail as mixed mail. This meant that even after the charter plane was full, all mail prepared by THS was loaded into mixed containers, which resulted in additional FedEx handling before it reached its destination.
- At the Dallas-Fort Worth THS site, staff loaded mail prepared for bypass containers into the bedload and offload trucks; therefore, there was not enough remaining bypass mail to fill bypass containers. This resulted in additional FedEx sorting of the mail before it arrived at its destination.

> *"In FY 2019, mitigation efforts for air transportation cost at least $140 million."*

The downstream effect of both of these techniques is that THS sites missed their bypass goals, either because they received no bypass mail from the plants or because too much of the bypass mail was tendered to the mitigation transportation for the THS site to be able to make bypass containers. Mail sorted in bypass containers is less expensive than mixed volume. The *Terminal Handling Service Guide Version 1.0 (THS Guide)*[24] states that bypass containers that are less than 87 percent full must be changed to mixed containers. While these efforts relieved excess and delayed capacity in certain air stops, they increased the Postal Service [redacted] costs and caused THS sites to miss their bypass container goals.

Recommendation #1

We recommend, the **Vice President, Logistics,** create reason codes in the Surface Visibility Web 2.0 system for why extra trips are being ordered.

Recommendation #2

We recommend, the **Vice President, Logistics,** require bedloads [redacted] charters, and offloads to be filled with mixed mail over bypass mail to the extent possible.

21 These trailers, when 100 percent full, average around 3000 ft³.
22 For example, when there is too much mail materializing at an air stop like Los Angeles, the Postal Service will transport mail to Ontario, a nearby air stop.
23 The Northeast and Capital Metro Area were unable to provide offload costs for FY 2019 because they did not track these costs separately.
24 A comprehensive guide to THS operations.

Finding #2: Transportation Optimization

The Postal Service's transportation network is not optimized for cost and efficiency. Throughout the surface and air networks, the Postal Service is either not generating operating plans that support optimal operations, or it is not following the plans in place. This is caused by misaligned scheduling, insufficient management oversight, imbalanced performance measurements, employee availability, and the inefficient allocation of mail.

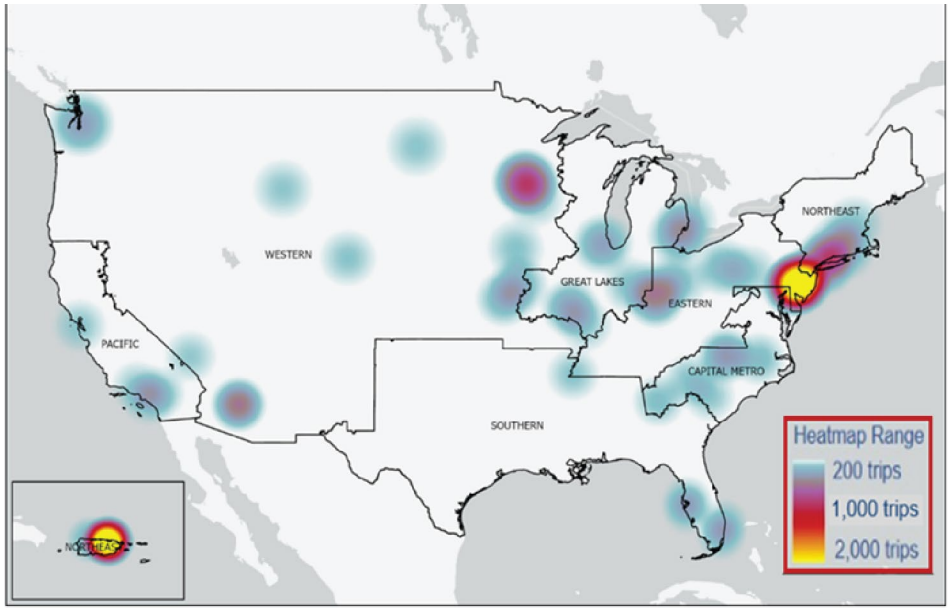
Misaligned Scheduling

In both the surface and air networks, misaligned transportation scheduling hindered efforts to meet service performance and cost savings goals.

In the surface network, some transportation schedules were not completely accurate or were not being followed because schedules were not consistently updated by transportation management. During field site visits, trips were canceled for a multitude of reasons. For example, a trip was late and was canceled, only to have another trip created. In addition, trips that were not running would be cancelled instead of removed from the schedule. When we analyzed nationwide canceled trips data, we found 176 trips were cancelled at least 200 times each in FY 2019 (see Figure 3).

"The Postal Service's transportation network is not optimized for cost and efficiency."

Figure 3. Heat Map of Trips Cancelled Over 200 Times in FY 2019



Source: SVweb and OIG analysis.

At the sites we visited, some of the schedules were not accurate or consistently updated. We observed the following discrepancies related to scheduling:

- At the North Texas P&DC, management changed the last scheduled transportation trip in January 2020. The changes had not been made in the Service Change Request (SCR) and Vehicle Information Transportation Analysis and Logistics (VITAL) systems. An expeditor also stated that the schedules to the THS site were not being followed and we observed this during our site visit. As a result, extra trips were added to meet the cut-off time to get the mai[redacted]
- At the Atlanta P&DC, schedules for PVS trucks coming from other local processing facilities were not followed. Management had to call the facilities to ask when trucks would be arriving and how much mail was on them. Some trucks arrived late, which caused management to call extra trips or hold trips.

- At the Hartford P&DC, management stated that an HCR trip needed to have its schedule changed since the mail was not processed timely, causing them to have an extra trip each evening. In addition, a PVS route had two trips but only one was needed so the other trip was canceled each night.
- At the Cincinnati P&DC, schedules from the local Network Distribution Center were not being followed which resulted in trucks arriving late.
- At the Las Vegas P&DC, an HCR trip to Arizona had two scheduled times due to the state not following Daylight Savings Time. Instead of updating the scheduled time in SCR, one of the trips was consistently canceled.

"In FY 2019, Postal Service trailer utilization was about 25 percent nationwide."

Operating plans[25] and run plan generators[26] are important for establishing correct transportation schedules; however, they are not always followed. The development of accurate operating plans is required by HQ Network Operations and is intended to aid the facility in the scheduling, processing, and delivery of its mail volume. About 85 percent of the operating plans were last approved in 2016, with one approved in 2009. At five of the eight sites we visited, the plant processed mail past its clearance time, causing transportation delays.

As a result, the Postal Service had low trailer utilization. In FY 2019, Postal Service trailer utilization was about 25 percent nationwide. See Figure 4 for an example of a truck with low trailer utilization.

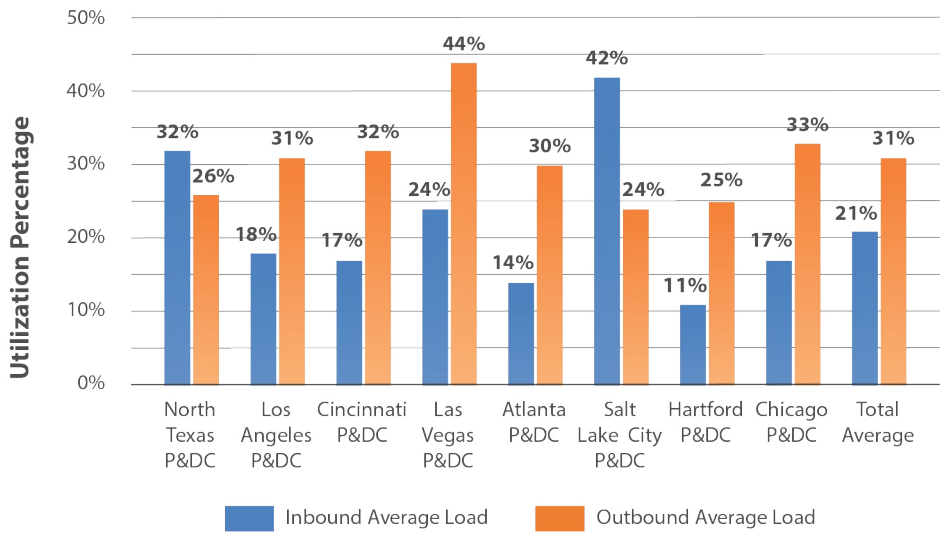
Figure 4. Low Trailer Utilization

Source: OIG photograph taken January 29, 2020 at 3:09 a.m. showing one container of mail on an HCR truck departing from the Atlanta P&DC.

However, average trailer utilization in the U.S. was 64 percent and industry targets are between 70 and 75 percent. We observed that intermediate trips had low trailer utilization because mail processing operations were not clearing mail on time. At the sites we visited, average trailer utilization was about 26 percent for the days we were there (see Figure 5).[27]

25 Organized collections of operations, mail classes, automation, mechanization, average daily volumes, and target times which, when considered in total, reflect the operational structure, strategy, processing goals, and customer commitments of a postal facility.
26 Helps manage mail processing operations by combining site-specific mail processing machines, sort programs, maintenance requirements, mail volume, and the rate at which machines process mail to project daily machine run plans.
27 These percentage are an aggregate for PVS and HCR trucks.

Figure 5. Trailer Utilization by Facility During Site Observations



Source: SVweb.

In the air network, volume arrival profiles are plans that detail the hourly percentage of mail that Postal Service facilities are supposed to deliver to the THS site. According to the THS Guide, volume arrival profiles are supposed to support THS efficiency if the plan is met. The plan should allow THS staff enough time to fill both bypass and mixed air containers planned for that evening. Bypass containers hold mail that is all destined for a specific location; once THS staff builds the container, the mail is not sorted again until it arrives at the destination Postal Service facility. THS staff can build mixed containers more quickly because they contain mail for multiple destinations. However, mixed containers are sorted at the [redacted] hub, incurring an additional charge.

We found that volume arrival profiles were misaligned. At three of the four THS sites we visited, the mail arrived in accordance with the volume arrival profile, but it did not allow time for the THS staff to prepare bypass containers. THS sites stop building bypass containers during the last 45 minutes to two hours of operation, and they instead convert all incoming mail to mixed mail. Therefore, the mail was sent on mixed containers which require additional FedEx handling at an additional cost to the Postal Service.

> *"We found that volume arrival profiles were misaligned."*

Recommendation #3

We recommend the **Vice President, Logistics,** issue supplemental guidance to evaluate recurring late, canceled, and extra trips, and trips with consistently low trailer utilization; and update, remove, or consolidate trips; and adjust the transportation schedules accordingly.

Recommendation #4

We recommend the **Vice President, Logistics,** in coordination with the **Vice President, Processing and Maintenance Operations,** align volume arrival profiles with terminal handling services operations to allow time to build the planned amount of bypass containers.

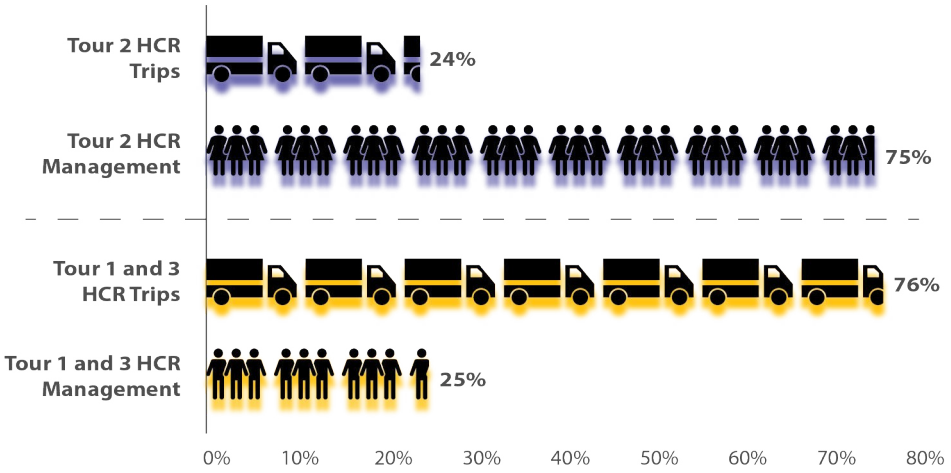
Insufficient Management Oversight

Insufficient management oversight of day-to-day operations created inconsistencies and inefficiencies throughout the surface and air networks.

In the surface network, we observed that senior-level managers[28] and front-line supervisors[29] were generally not present during the evening[30] and early morning[31] shifts for HCR operations at the sites we visited. At the eight P&DCs we visited, 76 percent of HCR trips ran during Tours 1 and 3, but only 25 percent of transportation supervisors worked during these tours (see Figure 6). At the Hartford P&DC, we noted a best practice that had network specialists working on the docks and supervising personnel during the evening (Tour 3) and early morning (Tour 1) shifts.

28 Includes Transportation and Networks System (TANS) managers, which manage the transportation of mail for a mail processing facility and its service area.
29 Includes network specialists.
30 Tour 3 is from 3:00 p.m. to 11:00 p.m.
31 Tour 1 is from 11:00 p.m. to 7:00 a.m.

Figure 6. HCR Trips and Management by Tour at Facilities Visited



Source: SVweb and OIG analysis.

However, for PVS operations, we found there was sufficient management oversight at the sites we visited. Specifically, at seven of the eight sites we visited, we found at least one – or sometimes two – front-line supervisors working the evening and early morning shifts.

Additionally, network specialists review and monitor contractor compliance with the contract, evaluate contractor performance, and recommend and implement changes to improve the effectiveness of suppliers. In addition to their regular duties, some network specialists are also administrative officials (AO).[32] Completing duties as both a network specialist and an AO can lead to increased workload and potential for issues. Specifically, at the eight sites we visited, 57 percent of the network specialists were also AOs, which increased their workload and resulted in issues with data being entered in SVweb. For example, the AO is supposed to ensure transportation information has been correctly entered (including a PS Form 5397[33]) into SVweb.[34] The AO must review each PS Form 5397 and reconcile each extra trip against Postal Service transportation records. However, we found instances where PS Forms 5397 were completed and approved for extra trips, but the trips were not created in SVweb. We also found instances where extra trips were added into SVweb without the supported PS Forms 5397.

In a prior report,[35] we identified extra trips that were approved and paid without supervisory review or reconciliation for accuracy. Additionally, extra trip data in the SVweb dashboard was incomplete and inaccurate because these extra trips were not in SVweb. We recommended the Postal Service perform data validation for the information in SVweb to ensure the extra and canceled trips KPIs are accurate and complete. Postal Service management agreed with the recommendation with a target implementation date of October 31, 2020.

In the air network, THS sites were not equipped with the required technology and Postal Service THS liaisons (liaisons) were not given enough instruction about what information to report to HQ and who was responsible for responding to identified anomalies.

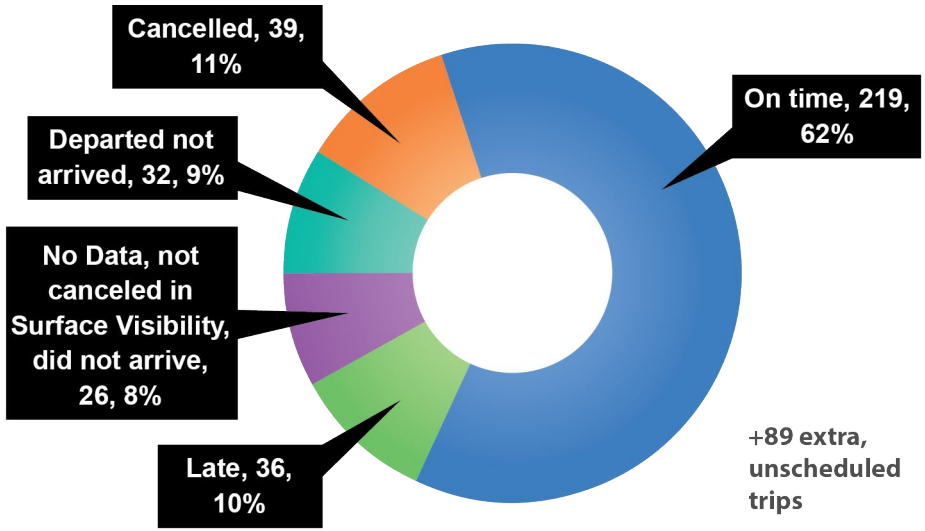
THS staff are responsible for the hand-off of mail between the Postal Service and FedEx. THS staff have a general idea of when trucks will be arriving; however, trucks do not always adhere to the planned trips in SVweb. In addition, THS staff do not know when plants cancel a truck, send it late, or call an extra trip. This lack of visibility creates staffing and operational inconsistencies for the THS site. While THS sites had computers that could access the SVweb system away from warehouse operations, the staff could not track trucks coming into the facility on the docks and they did not know the incoming trucks' utilization. Liaisons at some of our site visits were also unable to contact facilities to check their status. Additionally, THS sites were not issued Surface Visibility mobile scanners (SVmobile scanner),[36] which are needed to support operations and contractually required at three of the four THS sites we visited. Equipping THS sites with the

32 Responsible for the daily management and oversight of HCRs at the local level and for informing contracting officers of any HCR performance irregularities.
33 When the Postal Service authorizes extra trips, it issues a PS Form 5397 to the driver. A network specialist is one of the personnel who are authorized to issue a PS Form 5397.
34 Postal Service Management Instruction PO-530-2017-1, *Highway Contract Route Exceptional Service Performance Payment Reconciliation*, dated August 31, 2017.
35 *U.S. Postal Service Transportation Network Operations and Cost Optimization Practices* (Report Number 19XG002NL000-R20, dated November 7, 2019).
36 Wireless handheld touchscreen computers with an integrated barcode scanner for scanning mail containers. The SVmobile scanners collect end-to-end container and trailer data from scans performed by users at SV facilities nationwide.

SVmobile scanners would allow THS staff and Postal Service representatives to monitor incoming transportation in real time and properly plan their operations.

During our THS site visits, we observed incoming trips from Postal Service facilities. Our observations included 36 late trips (10 percent of planned trips), 39 cancelled trips (11 percent of planned trips), and 89 extra trips (20 percent of the total trips). See Figure 7.

Figure 7. Incoming Trips Observed at Terminal Handling Services Sites



Source: OIG THS observations and SVweb.

Additionally, there was a lack of consistency as to what liaisons reported to HQ and who was responsible for responding to identified anomalies. Liaisons do not follow a reporting template, provide information on clearly defined indicators, or have consistent recipients. This is due to a lack of standardization established by HQ on what information should be reported and to whom. Our site visits revealed that each of the THS sites reported on plant conditions differently. The lack of standardization makes it difficult to summarize and trend operational performance and indicators. These reports should provide actionable data to addressees who require follow-up and corrective action, if needed. HQ should monitor and trend data to help determine systemic issues needing corrective action and to share and identify best practices. They should also provide liaisons with a template that details what data need to be reported daily and to whom it should be reported.

Further, management oversight of CAIR air lane penalties needed strengthening. When a CAIR carrier underperforms by delaying mail or missing scans, the Manager, CAIR Networks, will not tender First-Class Mail (FCM) to that carrier or will reprioritize mail assignment for that carrier. During this process, mail is taken off the carrier's air lane until performance improves. However, this reprioritization action was not tracked; the manager completed a CAIR Reprioritization Form for the Air Transportation Category Management Center (CMC) team,[37] but the form was not stored in a central location or used for carrier performance analysis. The form includes carrier and flight information, originating and destinating air stop, impacted mail class, and a justification. Adding the form to the carrier's contract file would allow the CMC to use it to leverage contract renewals and negotiations. As a result of our analysis, the CMC team took corrective action by adding past forms to the contract files and indicating that they plan to continue the practice.

Recommendation #5

We recommend the **Vice President, Logistics,** increase management oversight for highway contract route operations for evening and early morning tours.

Recommendation #6

We recommend the **Vice President, Logistics,** equip terminal handling services sites with Surface Visibility mobile scanners, develop a daily condition report template for Postal Service terminal handling services liaisons, and standardize the Postal Service's corrective action procedures in response to liaisons' reporting.

37 The CMC team is responsible for creating a strategy for major spend categories within the Postal Service, including air transportation. This team is responsible for the purchase of goods and services for air transportation.

Imbalanced Performance Measurements

In the surface network, management monitors and manages the network through six KPIs in the surface transportation dashboard.[38] These include trips on time, extra trips, cancelled trips, unrecorded or incomplete trips, trips departed not arrived, and trailer utilization. In addition, the Postal Service uses the National Performance Assessment (NPA), a system that collects performance-related metrics[39] and supports the Pay for Performance program[40] and Performance Evaluation System.[41] However, there was a lack of incentives for TANS managers to improve surface network operations and reduce mitigation expenditures.

Specifically, NPA indicators did not align with surface transportation's KPIs. The only NPA indicator for facility-level TANS managers that aligned with the six KPIs was trips on time.[42] The NPA target for trips on time was 90 percent. At the sites we visited, even if the TANS manager met the NPA target for trips on time, it did not guarantee a pay increase. The trips on time indicator was not the most important facility-level measurement of performance in NPA for TANS managers. Total Operating Expense to Plan and Scan Performance are weighted more heavily.

Further, there were no target goals for surface network KPIs. Target goals should be measurable so performance can be tracked. At the eight sites we visited, we found five with an increase in canceled trips and four with an increase in extra trips in FY 2019. This caused issues with transportation schedules and led to increased costs. The six KPIs should have goals that are specific, measurable, achievable, relevant, and timely (SMART). SMART goals lead to better performance. For example, the surface network's priority is meeting service performance goals. To help achieve its goal, the Postal Service made it a priority to reduce the number of late surface trips in FY 2019. As this goal is a part of NPA, seven of the eight sites we visited decreased the number of late trips in FY 2019 compared to FY 2018 (see Table 5).

Table 5. Percentage Difference for Canceled, Extra, and Late Trips in FY 2019 Compared to FY 2018

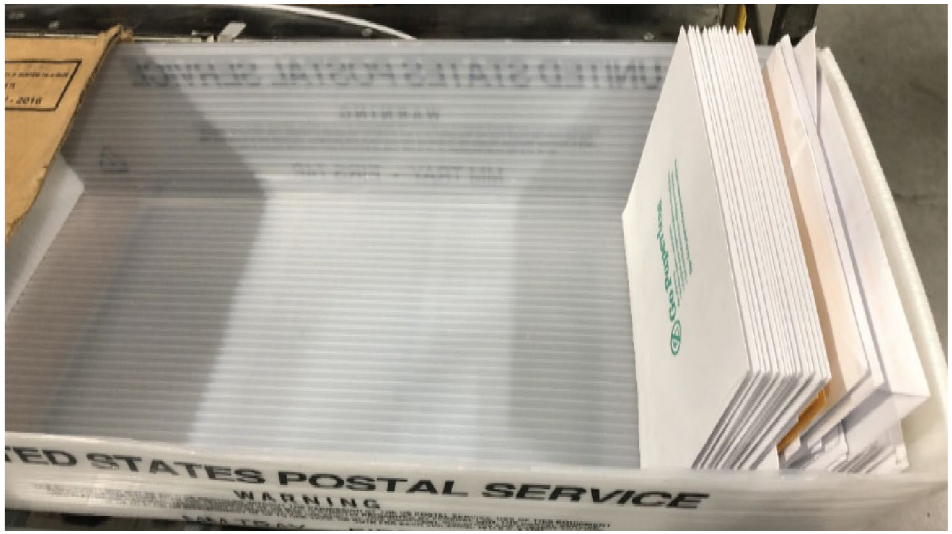
KPI	North Texas P&DC	Cincinnati P&DC	Los Angeles P&DC	Las Vegas P&DC	Salt Lake City P&DC	Atlanta P&DC	Hartford P&DC	Chicago P&DC
Canceled Trips	31%	40%	-16%	58%	6%	19%	-35%	-16%
Extra Trips	15%	27%	48%	-4%	-51%	30%	-7%	-5%
Late Trips	-19%	-1%	-7%	-21%	-6%	-10%	-32%	30%

Source: SVweb.

In the air network, the weight and cubic feet of each air container are measured to calculate density. The Postal Service uses assumptions about the density of FCM and Priority Mail,[43] along with an estimate for the mail mix at each THS site to create density goals for each liaison and THS site. These density goals did not contribute to optimal performance because the liaisons did not have control over meeting the goals. None of the sites we visited was able to meet the given density goal. The density goal is meant to incentivize THS staff to pack containers properly, but it ends up penalizing the liaisons when the mail does not materialize in the network or the plants do not efficiently pack trays and tubs. Mail trays that are not packed to capacity do not meet the assumed density measures for the space the tray is taking up in the container. Below is an example of the type of tray we observed (see Figure 8).

38 The six KPIs are found in SVweb under the *SV Transportation Summary* report.
39 The metrics are translated into web-based scorecards that are used to monitor manager performance at both the Postal Service corporate level and at unit level, such as at mail processing plants.
40 The primary pay program for executives, professionals, supervisors, postmasters, and non-bargaining technical and clerical employees.
41 To assist in the FY objective-setting process, a mid-year review process, and the end-of-year feedback and evaluation process.
42 The Trips On Time indicator has two components: Trips On Time Rate and Trips On Time percent of Extra Trips.
43 On a national scale, FCM Priority Mail is expected to have an average density of 10.5 pounds per cubic feet (Lb/Ft^3) and the goal for Priority Mail is 5.8 Lb/Ft^3.

Figure 8. Nearly Empty Mail Tray



Source: OIG observation of mail from the North Texas P&DC taken January 8, 2020.

Additionally, although THS sites did not meet their density goals, they did not have to order additional containers, indicating they used proper packing to contain the anticipated amount of mail. At two sites, the liaisons reported that when they met density goals in the past [redacted] rejected the containers because they were heavier than the plane could withstand, indicating that density goals may be unrealistic.

As a result of our finding, management took corrective action during the audit by updating the density goals for FY 2020. Specifically, they changed the density goals to exceed the goal achieved from the same period last year for each THS site. We consider this corrective action responsive, therefore we are not making a recommendation regarding this matter.

Recommendation #7

We recommend the **Vice President, Logistics,** develop target goals for the surface transportation key performance indicators to reduce mitigation expenditures.

Employee Availability

A shortage of truck drivers across the country has been growing since 2013. The estimated shortage of truck drivers in 2019 was 59,500 and is projected to rise to 160,000 by 2028. The surface network relies on the PVS fleet and drivers to transport mail between processing facilities, inner-city delivery offices, and local businesses and mailers. In FY 2019, there was a PVS driver shortage of 1,247 drivers (12 percent) nationwide. Specifically, the Postal Service was authorized to hire 10,039 PVS drivers; however, the Postal Service only had 8,792 drivers on its roll. See Table 6 for PVS driver shortage by area.

Table 6. PVS Drivers Authorized vs. On Roll for FY 2019

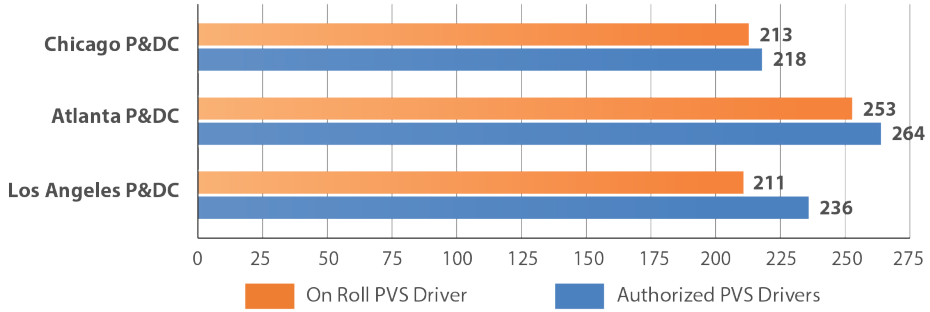
Area	Authorized	On Roll	Difference	Percent Difference
Western	1,320	1,035	285	22%
Pacific	1,272	1,026	246	19%
Eastern	1,383	1,175	208	15%
Northeast	2,125	1,884	241	11%
Great Lakes	1,338	1,232	106	8%
Southern	1,516	1,407	109	7%
Capital Metro	1,085	1,033	52	5%
Total	**10,039**	**8,792**	**1,247**	**12%**

Source: Postal Service Workforce System.

Figure 9 shows authorized and on roll for PVS drivers in FY 2019 at the Chicago, Atlanta, and Los Angeles P&DCs.[44]

44 As of September 27, 2019.

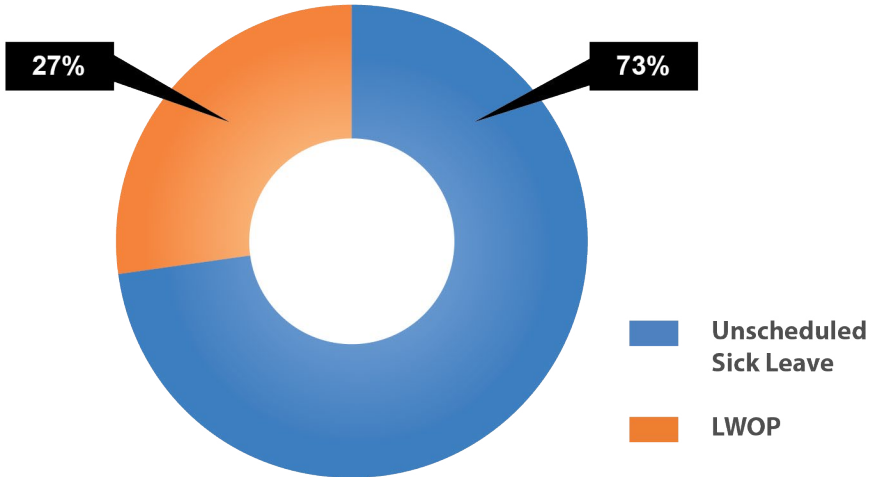
Figure 9. Employee Availability by Facility for FY 2019



Source: Postal Service Workforce System.

Additionally, in FY 2019, unscheduled sick leave[45] and leave without pay (LWOP)[46] comprised 2 percent of all PVS workhours (563,000 of 32 million). Unscheduled sick leave was about 73 percent of unscheduled leave and LWOP was 27 percent (see Figure 10).

Figure 10. PVS Unscheduled Sick Leave and LWOP Workhours for FY 2019



Source: EDW and Times and Assistance Reporting System.

Further, in FY 2019, the Postal Service was authorized 876 senior-level managers and front-line supervisors but had only 820 on its roll. There was a shortage of 56 (6 percent) senior-level managers and front-line supervisors nationwide. Employee availability issues impact operations. It can affect management oversight of the operations and lead to an increase of PVS overtime, which increases costs.

Recommendation #8

We recommend the **Vice President, Logistics,** establish appropriate hiring incentives to increase the number of Postal Vehicle Service drivers.

Inefficient Allocation of Mail

The Postal Service could be putting more mail on the lowest cost carrier. A Ready Now → Future Ready Initiative for the Air Logistics group is to reduce air network costs, and it has three efforts to meet this initiative. One of these is the Lowest Cost Carrier (LCC) initiative, which is an effort to fly more mail on carriers that are less costly. In the current environment, CAIR is the most cost-effective option, followed by [redacted] and, lastly, [redacted] Mail prioritization assignment, and the LCC initiative, are based on assigning mail volume first [redacted]

Air Allocation Model

The Air Network Modeling team created an Air Allocation Model to allocate mail to the various providers. The model uses an air allocation code based on various assumptions and there was no outside review of the model before it was implemented. The algorithm is intended to optimize air mail volume allocation with the objective of minimizing costs.[47] However, we identified irregularities in

45 A form of disability insurance to protect employees from loss of pay if they cannot work because of illness, injury, or medical examinations or treatment.
46 An authorized absence from duty in a non-pay status. This can be full-day or partial-day LWOP.
47 Specifically, the stated goal of the objective is "allocating available demand of each mail class in each air-stop to available carriers in such a way that cost and/or performance in the Postal Air Network be optimized." Currently, the model is set to only optimize for cost.

the way the code allocated mail. For a more thorough accounting of irregularities in the code, see Appendix B. These irregularities in the code are leading to an underutilization of CAIR, costing the Postal Service about [redacted] We estimate that the Postal Service incurred additional costs of about $43 million in FY 2018 and about $56 million in FY 2019 for a total of about $100 million in questioned costs in FYs 2018 and 2019. In addition, if the Postal Service implements proper controls and processes to ensure that FCM is assigned to CAIR up to the available capacity per air stop [redacted], it will save about $50 million annually in FYs 2021 and 2022.

Among the irregularities we identified in the Air Allocation Model was [redacted] pricing has not been updated since February 2017, and it does not include all costs associated with processing mail through [redacted] [48] This [redacted] incorrectly appear less costly than other carriers when a certain threshold volume is hit. In addition, density assumptions in the code do not align with other Postal Service data for FCM. Density is the calculation used to convert pounds to cubic feet for mail products, [redacted] allocates volume to the Postal Service [redacted], but the rest of the carriers provide capacity [redacted] Quarterly, the Postal Service tracks the density of FCM and Priority Mail flown.[49] In FY 2019, the model assumed density of FCM was 10.5 pounds per cubic foot (Lb/Ft³), when the average density of FCM for the year was 7.7 Lb/Ft³. Incorrect density leads to a misestimation of cubic feet needed in [redacted] which could increase costs.

Inaccuracies in the model occurred because the Air Network Modeling team does not have a quality control process to verify the impact of changes made, does not keep a log of changes to the model, and does not have a user guide for how to run and augment the model.

CAIR Expansion

CAIR providers notify the Postal Service of the amount of mail they can transport each day via Carrier Generated Route (CGR) files based on the size of the plane and expected weight of passengers and baggage. CGRs show available capacity to the Postal Service for contractually stipulated air lanes, by day of the week. The Postal Service can provide mail volume up to 110 percent of the stated capacity. Consequently, CAIR provides excess airlift in markets where it is not needed[50] and not enough airlift in markets where it could be used. The Postal Service transports the remaining mail [redacted]. For example, in FY 2019, CAIR offered an average monthly airlift of about 140 million pounds, but the Postal Service only used an average of about 31 million pounds of CAIR per month (22 percent). Additionally, the Postal Service would have benefited from additional CAIR airlift in 56 of the 63 air stops (89 percent), that had [redacted] and CAIR operations. During FY 2019, the Postal Service flew about 60 million pounds of FCM [redacted] because of insufficient CAIR capacity. The Postal Service had not considered contacting CAIR providers regarding additional airlift at these air stops.

> “[redacted]”

The Postal Service has not requested CAIR expansion in specific air lanes for FCM volume. Putting FCM on CAIR instead [redacted] saves the Postal Service [redacted] per pound, on average. The Postal Service could try to capture some of those savings by providing CAIR with information about air lanes with opportunity for more capacity.

48 Mixed containers, which are sorted at the [redacted] hub, have an additional per-piece cost.
49 While density assumptions in the rest of the network are based on sampling, the density data for air volume is based on the weight and dimensions encoded in the Dispatch & Routing tags, which also list where the package originated and is destined. The Air Network Modeling team stated that the density assumptions calculated by the Postal Service were imperfect, but they are the best available density calculation.
50 CAIR offers airlift in some markets where the Postal Service uses surface transportation because it is less expensive. For instance, Newark to Boston is a surface route, but Delta offers airlift to these two air stops.

Priority Mail Screening

The Postal Service currently allocates primarily FCM to CAIR. This mail is generally containerized in dense trays and tubs. The Postal Service would benefit from allocating Priority Mail, which is generally lightweight but larger per piece, to CAIR.[51] This is because [redacted] to CAIR – [redacted]. The type of mail CAIR can carry as cargo is restricted by the *Implementing Recommendations of the 9/11 Commission Act of 2007.*[52] This act mandated that 100 percent of cargo over 16 ounces flown by passenger aircraft must be screened. According to TSA, Priority Mail is considered cargo.

Screening can be accomplished using either canines or electronic detection system (EDS). The Postal Service uses canine screening to scan Priority Mail in certain locations. TSA allows local law enforcement or certified contracted canine screening companies to perform mail scanning. Currently, the Postal Service and TSA have coordinated with local law enforcement to provide screening in [redacted] air stops across the country. Local law enforcement rejected the Postal Service's recent requests for additional screening because of local law enforcement's limited time and lack of reimbursement.

The Postal Service also completed a 90-day pilot for the [redacted] air stop using a certified contractor. TSA officials reported that this pilot was successful and they would work with the Postal Service to expand it to a nationwide program if the Postal Service and Postal Inspection Service were interested.[53] The Postal Inspection Service is still assessing whether this pilot should be continued, formalized, or expanded to other air stops.

According to TSA representatives, other logistics companies employed EDS and have retrofitted the machines to fit on conveyor belts. TSA representatives said they briefed the Postal Service about the detection system, [redacted] As of the time of this publication, the Postal Service and Postal Inspection Service were unable to provide the OIG with documentation reflecting that analysis.

Recommendation #9

We recommend the **Vice President, Logistics,** fix inaccuracies in the Air Allocation Model and institute a system of quality controls for the model to include periodic reviews for accuracy; a manual for how to use the model; and a log documenting changes made to the model.

Recommendation #10

We recommend the **Vice President, Logistics,** increase use of the lowest cost carrier by updating density assumptions, requesting additional lift from commercial airlines in target markets, and coordinating with the Transportation Security Administration to expand screening.

Management's Comments

Management agreed with the findings and recommendations. Management initially disagreed with recommendation 6, but in subsequent correspondence agreed to an alternative course of action. Based on subsequent conversations, management did not agree with the monetary impact. See Appendix C for management's comments in their entirety.

Regarding recommendation 1, management stated they will work with the Surface Visibility (SV) development team to create reason codes for extra trips. The target implementation date is January 30, 2021.

Regarding recommendation 2, management stated they will work with the THS and Processing Operations to ensure bedloads and [redacted] charters are filled with mixed mail to the extent possible. Additionally, the ATO group will review the [redacted] Bypass report daily and work with area representatives as needed. Management verbally requested a target implementation date of July 1, 2020, rather than the original target implementation date of June 1, 2020.

Regarding recommendation 3, management stated they will send out messaging to the field to continue to evaluate trips and eliminate trips that are not needed to meet service. The target implementation date is June 15, 2020.

51 During our site observations, we observed Priority Mail that contained solely bubble wrap.
52 See 6 U.S.C. §101 (1602).
53 The Postal Service allocates mail between carriers, but the Postal Inspection Service is responsible for coordination with TSA [redacted].

Regarding recommendation 4, management stated they will commit to improve the dispatch profile by deploying the Transportation Sweepside Assignment printer, which will help reduce assignment time. Management will also emphasize the importance of complying with the operating plan and improving the accuracy of volume projections. The target implementation date is June 30, 2020.

Regarding recommendation 5, management stated they will issue a memo to the field reiterating the need to provide oversight of HCR and PVS operations during heavy volume hours. The target implementation data is June 15, 2020.

Regarding recommendation 6, management initially disagreed with providing the THS facilities with SVmobile Scanners, instead stating the THS contract would require the supplier to provide scanners to complete the required work. Management stated the arrival and departure of trailers would be tracked using global positioning system (GPS) data. Management also stated that, although the THS liaisons are currently including all the KPIs in their daily report, they will create a standardized template for reporting. Management will also provide standard operating procedures (SOP) to all transportation specialists overseeing THS operations, outlining the procedures for corrective action. The target implementation date is July 1, 2020.

Regarding recommendation 7, management stated they will establish goals for the KPIs used in SV and IV. The target implementation data is September 30, 2020.

Regarding recommendation 8, management stated they have already established hiring incentives by advertising on social media and setting up a pilot to pay for commercial driver's license training.

Regarding recommendation 9, management stated they have addressed each concern identified in the audit. Specifically, management stated the ANM team investigated and determined that penalty integers do not affect CAIR allocation because CAIR is provided a demand file based on the initial forecast. Additionally, management stated that carrier costs were included for analytical purposes only and do not affect how volume is allocated. Further, management stated the ANM team investigated and corrected inconsistencies detected with [redacted] capacities and that to address quality controls and accuracy reviews of the modeling, ANM will expand the current daily gap analysis file beyond analyzing origins for accuracy. This new file will compare planned versus actual at the lane level. Management also stated they are updating the SOP and work instructions for using the model to improve usability. Lastly, management stated a log for documenting changes to the model was established. The target implementation date to fix inaccuracies in the Air Allocation Model and institute a system of quality controls for the model to include periodic reviews for accuracy is July 17, 2020, and the target implementation date to create a manual for how to use the model and a log documenting changes made to the model is August 3, 2020.

Regarding the monetary impact, based on subsequent conversations, management did not agree that costs associated with the unused CAIR capacity were attributed to the incorrect prices and density in the code. Management stated that many factors caused the Postal Service to shift volume from CAIR to [redacted] FYs 2018 and 2019. Management did agree that the OIG identified opportunities to improve aspects of the allocation model that will potentially improve results, and management stated their intention to test the updates to the code to compare the allocation [redacted] CAIR versus the original allocation to assess the monetary impact.

Regarding recommendation 10, management stated the ANM team is currently conducting a density study that preliminarily shows improved accuracy, based on data from prior operating periods. Management will continue the study for an upcoming operating period alongside the current method. The results will be reviewed with ATO and if the results of the revised method show improvement and are approved, ANM will move forward with implementation. Lastly, management stated that Commercial Air Operations in coordination with the Postal Inspection Service will continue working on implementation of the 3PK9 Program, as approved by the Postal Service's Executive Leadership Team. The target implementation date is August 3, 2020.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations in the report and management's corrective actions should resolve the identified issues.

Regarding recommendation 6, initially management disagreed with the recommendation; however, in subsequent correspondence management stated that they would not provide Postal Service scanners to the THS providers because it is cost prohibitive. As an alternative, management will use current SVweb data from the dispatching facility systems and the GPS tracking of the vehicles destined to the THS facility. According to management, using these data points will provide the visibility regarding the VAP, with no additional cost to the Postal Service. Additionally, management stated that THS providers currently have access to SVweb which contains the dispatch data needed for their review of the VAP and THS providers will continue entering truck arrival into the SVweb application to complete transit record information. Further, management will review this process with THS suppliers during weekly calls. The OIG considers this alternative action to be responsive to the recommendation.

Regarding recommendation 8, management did not provide support during the audit showing they had taken action but provided the required support as part of their management's comments. Specifically, Postal Service management rolled out a pilot commercial driver's license training during the reporting phase of this audit. Consequently, we are closing the recommendation with issuance of this report.

Regarding recommendation 9, management agreed with the recommendation, but stated that carrier costs were included for analytical purposes only and do not affect how volume is allocated. In subsequent conversations, the OIG provided an example of how carrier costs do materially impact how the model allocates volume across carriers. The model functions to provide volume to the lowest cost carrier.

Regarding the monetary impact, while the OIG agrees that many factors played a role in causing the Postal Service to shift CAIR volume [redacted] in FYs 2018 and 2019, the air model allocation code is what the Postal Service uses to conduct its primary assessment of how much volume it should request from each carrier, for each operating period. The OIG's assessment of the code established that the prices within the model were outdated and caused an under allocation to the lowest cost carrier. This, in turn, caused the Postal Service to request more space [redacted] than was actually needed.

All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. Recommendations 1 through 7, 9, and 10 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 consider recommendation 8 closed with the issuance of this report.

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 Postal Service's surface and air transportation operations in FY 2019. However, in some instances we used FY 2018 transportation data to compare operations.

To accomplish our objective and determine the causes of the unoptimized transportation network and the causes contributing to missed service standards, we examined the effectiveness of mitigation techniques and their associated costs. We identified costs, obtained cost data, and separated mitigation costs for the surface and air networks from EDW.

For the surface network, we:

- Analyzed costs for the surface network for FY 2019 and compared them to FY 2018 costs;
- Analyzed service performance for FY 2019 and compared it to five previous fiscal years;
- Reviewed cost-savings initiatives such as Ready Now → Future Ready, zero base, and Dynamic Route Optimization (DRO);
- Analyzed the six KPIs (trips on time, extra trips, cancelled trips, unrecorded or incomplete trips, trips departed not arrived, and trailer utilization) for FY 2019 and compared them to FY 2018 KPIs;
- Interviewed Postal Service HQ Logistics management;
- Reviewed transportation schedules in SVweb;
- Reviewed trailer utilization in SVweb to determine excess capacity;
- Analyzed employee availability, including authorized vs. employee complement for PVS drivers, unscheduled sick leave, and LWOP;
- Reviewed NPA goals for transportation managers; and
- Analyzed data from EDW, SCR, SVweb, Informed Visibility (IV), Transportation Contract Support System (TCSS), VITAL, Web Complement Information System (webCOINS), and Postal Service Workforce System.

For the air network, we:

- Evaluated the cost-savings initiatives as detailed in the Ready Now → Future Ready initiative, specifically, focusing on the LCC initiative;
- Determined whether the Postal Service is using the lowest cost carrier to transport mail by air;
- Analyzed the entire universe of CGR data provided by commercial airliners and EDW data provided by the Postal Service using RStudio;[54]
- Identified and analyzed air lanes that had excess CAIR lift and computed the weight flown on a given day from the potential capacities listed in the CGR files;
- Evaluated VAPs to ensure alignment with transportation schedules;
- Determined how the Postal Service incentivizes carrier performance;
- Reviewed air contracts covering FedEx, UPS, CAIR, and THS operations to determine requirements;
- Interviewed Postal Service HQ Logistics managers and discussed how they manage the air networks and mail forecasting, and determined the logic used for mail allocation; and
- Analyzed data from the EDW, Logistics Condition Reporting System (LCRS), SVweb, VITAL, Surface Air Support System (SASS), and Surface Air Management Systems 2 (SAMS-2).

We conducted site visits at eight P&DCs to observe inbound and outbound trips and causes of inefficiencies and observed operations at four THS sites to view FedEx and supplemental charter mail preparations:

54 An integrated development environment for R, a programming language for statistical computing.

Table 7. Site Visits

Location	Air Network	Surface Network
Atlanta		Atlanta P&DC
Chicago		Chicago P&DC
Cincinnati		Cincinnati P&DC
Harford		Hartford P&DC
Los Angeles	Los Angeles and Ontario THS	Los Angeles P&DC
Las Vegas		Las Vegas P&DC
Coppell	Dallas-Fort Worth THS	North Texas P&DC
Salt Lake City	Salt Lake City THS	Salt Lake City P&DC

Source: OIG analysis.

We conducted this performance audit from December 2019 through June 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 April 10, 2020, and included their comments where appropriate.

We assessed the reliability of the Postal Service's EDW, SCR, IV, LCRS, SASS, SAMS-2, SVweb, TCSS, VITAL, Postal Service Workforce System, and webCOINS systems by interviewing knowledgeable agency officials; reviewing related documentation; and testing for completeness by recalculating the data and comparing it to other related data. We determined that the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

Report Title	Objective	Report Number	Final Report Date	Monetary Impact (in Millions)
U.S. Postal Service Transportation Network Operations and Cost Optimization Practices	Analyze practices and cost trends and identify risk areas within the Postal Service's transportation network.	19XG002NL000-R20	11/7/2019	$31
Postal Vehicle Service Zero Base Reviews	Determine whether the Postal Service's PVS Zero Base program was properly implemented and meeting goals.	NL-AR-19-005	9/27/2019	$51
Postal Service Dynamic Route Optimization and Cost Savings Initiative	Evaluate cost savings of implementing the Postal Service's DRO initiative.	NL-AR-19-004	9/27/2019	$33
Assessment of the U.S. Postal Service's Service Performance and Costs	Analyze service performance and cost trends of the Postal Service over the last five years.	NO-AR-19-008	9/19/2019	None
Management Alert – Charter Flights	Provide Postal Service officials with immediate notification of the issues identified during our ongoing audit.	NL-MT-19-002	9/5/2019	None
What's Driving Postal Transportation Costs?	Gain a better understanding of how much transportation costs have increased over the last 10 years.	RARC-WP-19-002	3/18/2019	None
Highway Contract Route Optimization Initiative Savings Calculation Methodology and Accuracy	Evaluate the Postal Service's HCR optimization cost savings methodology and the accuracy of reported savings for FY 2017.	NL-AR-19-002	1/30/2019	None
Highway Contract Routes – Extra Trips in the Mid-Carolinas District	Assess the effectiveness of the Postal Service's extra trip process for HCRs in the Mid-Carolinas District.	NL-AR-18-010	9/17/2018	$2.5

Report Title	Objective	Report Number	Final Report Date	Monetary Impact (in Millions)
Terminal Handling Services – Southern Area	Assess the effectiveness of THS the Postal Service uses to sort and transport mail in the Southern Area.	NL-AR-18-009	7/27/2018	$4.5
Highway Contract Route Irregularity Reporting – Chicago Network Distribution Center	Assess the effectiveness of the Postal Service's irregularity reporting process for HCR at the Chicago Network Distribution Center (NDC).	NL-AR-18-005	2/22/2018	$0.9
Highway Contract Route Irregularity Reporting – Jacksonville Network Distribution Center	Assess the effectiveness of the Postal Service's irregularity reporting process for HCRs at the Jacksonville NDC.	NL-AR-17-010	9/7/2017	$0.8

Appendix B: Air Allocation Model Irregularities

As part of this audit, we reviewed the allocation model used to allocate volume between air carriers. This model allocates mail volume between FedEx, UPS, CAIR, and supplemental charters. [redacted] allocation system [redacted] Since the model is intended to optimize for cost, it should allocate the least amount of mail [redacted] but we found more mail is being allocated into [redacted] buckets than should be, in some cases. There are multiple possible reasons based on irregularities in the code. These irregularities might have other, unintended consequences, as well.

The irregularities identified include:

- [redacted] in the model are inaccurate, and they lead to an over-allocation [redacted] when CAIR is available.[55] The Air Network Modeling team does not update the [redacted] pricing, which changes every four to six weeks. The model also does not consider the significant additional cost applied to all Priority Mail sacks and FCM trays and tubs that are sorted at [redacted] hub. If updated, these conditions would make [redacted] appear more expensive than CAIR for all tiers.
- The Postal Service uses a massive penalty-term integer to incentivize the model to fill charters and ensure mail is not over-allocated to offshore lanes.[56] When the incentivized conditions are not met, the algorithm multiplies by $100 trillion, so that the entire model will fail. The penalty-term integer is too large,[57] and it could impact other prices within the code. In particular, the number of decimal places is different for each air carrier's prices.[58] Small rounding inconsistencies can have a large impact on the algorithm's cost calculations when multiplying by such a large penalty-term integer. Moreover, the model requires precise and accurate costs to avoid incorrect results. While the penalty-term integer might not impact costs or calculations when the conditions are met, the OIG could not confirm this because the model's output does not show calculations of how the result was achieved.
- For the charters, the code attempts to ensure every available space on the charter planes is full. Even if a fraction of a cubic foot of capacity is not filled, the entire model fails. This creates an incentive for the model to overfill charters with the less dense Priority Mail over FCM. This has complex network effects that could result in under allocation to CAIR. For example, if the model places mainly Priority Mail on charters, [redacted] take on more FCM to [redacted] Because CAIR can only take FCM, [redacted] would be taking mail that could have flown on CAIR.[59]
- For the offshore lanes, the model tries to ensure lanes are not given more volume than the air capacities available. If there is too much volume going to or from an offshore destination, the penalty-term integer applies to the excess volume, forcing the code to try to move the volume elsewhere. Because Priority Mail is larger per piece, the code inadvertently prioritizes FCM over Priority Mail. This could delay Priority Mail while expediting FCM.
- Penalty-term integers are supposed to incentivize models to have certain outcomes, and the higher the penalty-term integer, the more important meeting the desired outcome is. Currently, the penalty-term integers for offshores and charters are the same, indicating the outcomes are equally important. However, because charter calculations are in cubic feet and offshore calculations are in pounds, the penalty-term integer is not applied equally; the offshore volume outcomes appears more important than charter volume outcomes to the model.

55 Specifically, the model identifies [redacted] four and five as less expensive than any CAIR alternative.
56 Offshore Lanes include mail going to or coming from processing plants in San Juan, Puerto Rico; Honolulu, Hawaii; and Anchorage, Alaska. These lanes have limited capacities on the air carriers that provide service.
57 The code guidelines suggest not using a penalty-term integer over 100 million, and the guidelines suggest using an accurate estimate of the costs of an undesirable alternative. Not filling a charter and over-allocating mail to offshores does not cost the Postal Service $100 trillion dollars.
58 [redacted] price per pound is rounded to 5 decimal places, and [redacted] price per pound is rounded to 3 decimal places.
59 If the pricing inaccuracy described in the first bullet was corrected, the [redacted] would not be filled before CAIR.

- While there are [redacted] charters listed at the beginning of the model, three of the four capacity totals are mis-specified. The first charter's capacity is listed as both 2,750 and 2,500 pounds, the second is listed as 1,250 and 2,500 pounds, and the third is listed as 0 and 2,500 pounds. One plane cannot have multiple capacities. These values are hardcoded into the model and should be consistent throughout the code. In addition, the model uses fixed prices that are inconsistent; sometimes the cost of [redacted] charters is listed as $215,917, while other times it is listed as $100,950.
- The Postal Service has variables within the code that are no longer used. An example of an unused variable within the current code is a total cost constraint. This constraint was used when the Postal Service was aiming to optimize both performance and cost; currently, the model just optimizes for cost.
- The model takes in the forecasted mail volume for a given operating period and the output is a file with the resulting mail allocated across carriers. This output does not include details of how the allocation was calculated. Impacts of the coding irregularities would be more apparent if the code's output showed the details, including each step of the calculation. This would also assist users in seeing the impact of modifications applied to the model.

Appendix C: Management's Comments

UNITED STATES POSTAL SERVICE

May 15, 2020

LAZERICK C. POLAND
DIRECTOR, AUDIT OPERATIONS

SUBJECT: **Transportation Network Optimization and Service Performance (Project Number 20-144 Draft)**

Thank you for providing the Postal Service with an opportunity to review and comment on the recommendation contained in the draft audit report, Transportation Network Optimization and Service Performance.

Management in general agrees with the majority of the report's findings of fact and will work to address the issues raised in the audit.

OIG Recommendation #1:
We recommend the Vice President, Logistics, create reason codes in the Surface Visibility Web 2.0 system for why extra trips are being ordered.

Management Response/Action Plan:
Management agrees with this recommendation and will work with the Surface Visibility development team to create reason codes for extra trips.

Target Implementation Date:
1/30/2021

Responsible Officials:
Director, Surface Transportation

Recommendation #2:
We recommend the Vice President, Logistics, require bedload's [redacted] charters and offloads to be filled with mixed mail over bypass mail to the extent possible.

Management Response/Action Plan:
Management agrees with this recommendation and will work with the Terminal Handling Services and Processing Operations to ensure bedloads [redacted] charters

are filled with mixed mail *to the extent possible*. The Air Transportation Operations group will review [redacted] Bypass report daily and work with the Area representatives as needed.

Target Implementation Date:
6/01/2020

Responsible Officials:
Director, Air Logistics

Recommendation #3:
We recommend the Vice President, Logistics, issue supplemental guidance to evaluate recurring late, canceled, and extra trips, and trips with consistently low trailer utilization; and update, remove, or consolidate trips; and adjust the transportation schedules accordingly.

Management Response/Action Plan:
Management will send out messaging to the field to continue evaluating the trips being run for efficiency and eliminating any trips that are not needed to meet service.

Target Implementation Date:
6/15/2020

Responsible Official:
Director, Surface Transportation

Recommendation #4:
We recommend the Vice President, Logistics, in coordination with the Vice President, Processing and Maintenance Operations, align volume arrival profiles with terminal handling services operations to allow time to build the planned amount of bypass containers

Management Response/Action Plan:
The Postal Service agrees with the recommendation that processing facility dispatches should align with the Volume Arrival Profiles to Terminal Handling Service to allow enough time to build the planned amount of bypass containers. USPS commits to improve the dispatch profile by deploying the Transportation Sweepside Assignment (TSA) Printer. TSA equipment helps reduce assignment time and improves the dispatch profile. USPS will also emphasis the importance of Operating Plan compliance and improve the accuracy of volume projections to have a better operating plan.

Target Implementation Date:
6/30/2020

Responsible Official:
Director, Processing Operations

Recommendation #5:
We recommend the Vice President, Logistics, increase management oversight for highway contract route operations for evening and early morning tours.

Management Response/Action Plan:
Management will issue memo to field reiterating need to provide oversight of HCR and PVS operations during the heavy volume hours.

Target Implementation Date:
6/15/2020

Responsible Official:
Director, Surface Logistics

Recommendation #6:
We recommend the Vice President, Logistics, equip terminal handling services sites with Surface Visibility mobile scanners, develop a daily condition report template for Postal Service terminal handling services liaisons, and standardize the Postal Service's corrective action procedures in response to liaisons' reporting.

Management Response/Action Plan:
Management partially agree with this recommendation.

1. USPS does not agree to supply scanners to any of the contracted THS suppliers. The current THS contract requires the supplier to provide scanners to complete the required work. The arrival and departure of trailers will be captured through GPS.

2. USPS agrees with this recommendation to create a standardized template for reporting, however the THS liaisons are currently including all of the KPI's in their daily report as prescribed by the Manager, Air Transportation Operations.

3. USPS agrees to provide Standard Operating Procedures to all Transportation Specialists overseeing the THS operations outlining the procedures for corrective action.

Target Implementation Date:
Item 1 will not be implemented.
Items 2 and 3 will be completed by July 01, 2020.

Responsible Official:
Director, Air Logistics

Recommendation #7:
We recommend the Vice President, Logistics, develop target goals for the surface transportation key performance indicators to reduce mitigation expenditures.

Management Response/Action Plan:
Management will establish goals for the key performance indicators used in SV and IV.

Target Implementation Date:
9/30/2020

Responsible Official:
Director, Surface Logistics

Recommendation #8:
We recommend the Vice President, Logistics, establish appropriate hiring incentives to increase the number of Postal Vehicle Service drivers.

Management Response/Action Plan:
Management was already doing this. We have a multipronged approach:

1) Advertising on multi social medias
2) Setting up pilot to pay for CDL training

Target Implementation Date:
Done

Responsible Official:
Director, Surface Logistics, Director of Diversity and Talent Acquisition

Recommendation #9:
We recommend the Vice President, Logistics, fix inaccuracies in the Air Allocation Model and institute a system of quality controls for the model to include periodic reviews for accuracy; a manual for how to use the model; and a log documenting changes made to the model.

Management Response/Action Plan:
Management agrees with this recommendation. The Air Network Modeling (ANM) team addressed each of the concerns identified in the audit. The audit team identified concerns that penalty integers and rounding may be impacting proper allocation to CAIR. ANM investigated and determined the penalty integers do not affect CAIR allocation. CAIR is provided a demand file based off the initial forecast. The OIG also voiced concerns around carrier costs in the model. Carrier costs were included for analytical purposes only and do not affect how volume is allocated. ANM investigated the concerns around inconsistencies observed with [redacted] capacities. The issues found were addressed and corrected within the program. [redacted] gives Air Transportation Operations (ATO) a container configuration with capacities by period, therefore capacities will change month-to-month. To address quality controls and accuracy reviews of the modeling, ANM will expand the current daily gap analysis file beyond analyzing origins for accuracy. This new file will compare planned vs. actual at the lane level. The SOP and work instructions for using the model are being updated to improve usability. A log for documenting changes to the model has also been established.

Target Implementation Date:
Update manual for allocation model: 8/3/2020
Model QC/Accuracy: 7/17/2020

Responsible Official:
Air Network Modeling Manager
Director, Logistics Modeling & Analytics

Recommendation #10:
We recommend the Vice President, Logistics, increase use of the lowest cost carrier by updating density assumptions, requesting additional lift from commercial airlines in target markets, and coordinating with the Transportation Security Administration to expand screening.

Management Response/Action Plan:
Management agrees with this recommendation. The Air Network Modeling (ANM) team is currently conducting a density study that preliminarily shows improved accuracy, based on data from prior operating periods. The next steps include continuing the study for an upcoming operating period alongside the current method. The results will be reviewed with Air Transportation Operations (ATO), and if the results of the revised method show improvement and are approved, ANM will move forward with implementation. Commercial Air Operations in coordination with the USPS Inspection Service continues to work on the implementation of the 3PK9 program as approved by the USPS Executive Leadership Team.

Target Implementation Date:
8/3/2020 – pending results support implementation

Responsible Official:
Air Network Modeling Manager
Director, Logistics Modeling & Analytics

Robert Cintron
Vice President
Logistics

Jeff Becker
Acting Vice President
Processing and Maintenance Operation

Linda DeCarlo
Acting Vice President,
Employee Resource Management

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

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