Office of Inspector General | United States Postal Service

Audit Report

Delayed Mail at the North Houston, TX, Processing and Distribution Center

Report Number 21-074-R21 | April 13, 2021

Table of Contents

Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

April 13, 2021

MEMORANDUM FOR: LARRY R. WAGENER, JR.
SOUTHWEST DIVISION DIRECTOR,
PROCESSING OPERATIONS

FROM: Adam Bieda
Director, Plant Evaluation Team

SUBJECT: Audit Report – Delayed Mail at the North Houston, TX, Processing and Distribution Center
(Report Number 21-074-R21)

This report presents the results of our audit of Delayed Mail at the North Houston, TX, Processing and Distribution Center.

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

Attachment

cc: Postmaster General
Chief Logistics and Processing Operations Officer and Executive Vice President
Vice President, Eastern Regional Processing Operations
Corporate Audit and Response Management

Results

Background

The U.S. Postal Service considers mail to be delayed when it is not processed in time to meet the established delivery day. Delayed mail can adversely affect Postal Service customers and harm the organization's brand.

The Postal Service launched the Mail Condition Visualization (MCV) application in January 2019. The application's intent is to provide near real-time visibility of a facility's on-hand volume, delayed processing volume,[1] delayed dispatch volume,[2] and oldest mail date by mail category and processing operation. MCV receives data from handheld devices used in mail processing operations, Surface Visibility[3] scans, and mailer documentation. MCV uses predictive logic to anticipate the next processing operation from site acceptance to final processing at a facility. The MCV application calculates delayed mail daily by determining the number of mailpieces that have not received their next expected processing operation by 6:59 a.m. for destinating final processing operations and by 6:00 a.m. for all other operations.

Two important processing operations are the Managed Mail Program and Delivery Point Sequence (DPS). Mail originating from one mail processing facility that requires additional processing at a destinating facility before delivery is part of the Managed Mail Program. Once the managed mail is processed, it is prepared for DPS, which is an automated process of sorting mail by carrier routes into delivery order. DPS requires sorting the mail multiple times, to sort the mail to the sector, segment, or carrier walk sequence.

We analyzed delayed mail volumes from mail processing facilities nationwide and found that the North Houston, TX, Processing and Distribution Center (P&DC) reported the most delayed mail in the nation from January 1 to December 31, 2020. However, the North Houston P&DC also processed[4] the most mail in the country during that timeframe (see Table 1).

Table 1. Facilities with the Most Delayed Mail

Facility Name	Delayed Mail	Processed Mail Volume
North Houston, TX, P&DC	3,635,893,755	6,126,696,977
Phoenix, AZ, P&DC	2,567,162,979	6,115,815,471
Santa Ana, CA, P&DC	2,256,649,591	4,874,258,890
Sacramento, CA, P&DC	2,221,383,150	4,568,623,244
Michigan Metroplex, MI, P&DC	2,084,971,390	3,701,365,261

Source: MCV.

Specifically, we reviewed operations with the most delayed mail at the North Houston P&DC from January 1 to December 31, 2020, and found DPS totaled about 3.2 billion mailpieces (or 89.3 percent) and the Managed Mail Program totaled over 283 million mailpieces (or 7.8 percent). See Table 2 for delayed mail by operation at the North Houston P&DC.

1 Occurs when committed mail is not processed and finalized in time to be dispatched on the designated dispatch of value to meet programmed delivery day (also known as Delayed Inventory).
2 Provides a count of mail not departed more than 15 minutes after Dispatch of Value.
3 A concept using barcode technology that allows the tracing of barcoded mail as it passes through the postal system in real time by the piece, container, or trailer.
4 The total volume equals total pieces handled and subsequent handling pieces for manual operations. For machine operations, total pieces handled is total pieces fed minus any reworks or rejects.

Table 2. Delayed Mail by Operation at the North Houston P&DC

Type of Operation	Processing Operation	Delayed Mail	Percentage of Total Delayed Mail
DPS	Marketing Letter (first pass)	935,746,700	25.7%
DPS	First-Class Letter (second pass)	889,335,165	24.5%
DPS	Marketing Letter (second pass)	879,618,613	24.2%
DPS	First-Class Letter (first pass)	543,297,144	14.9%
Managed Mail Program	First-Class Incoming Primary Letter	92,864,765	2.6%
Managed Mail Program	Marketing Incoming Secondary Flat	81,678,495	2.2%
Managed Mail Program	Marketing Incoming Primary Letter	31,556,984	0.9%
Managed Mail Program	Periodicals Incoming Secondary Flat	27,038,451	0.7%
Managed Mail Program	First-Class Outgoing Primary Letter	25,737,007	0.7%
Managed Mail Program	Marketing Incoming Primary Flat	24,914,066	0.7%
Other Operations		104,106,365	2.9%
Total		**3,635,893,755**	**100.0%**

Source: MCV.

A portion of the audit scope and our site observations occurred during the novel coronavirus (COVID-19) pandemic. The Postal Service experienced decreased employee availability and increased package volume during this time, which impacted operations nationwide.

Objective, Scope, and Methodology

Our objective was to determine the cause of delayed mail at the North Houston, TX, P&DC.

We analyzed delayed mail data in MCV from January 1 to December 31, 2020. We also interviewed North Houston P&DC management and observed mail processing and dock operations from February 1 - 4, 2021. Additionally, we reviewed employee availability in the Time and Attendance Collection System,[5] machine reports from the Run Plan Generator,[6] and mail Clearance Times in Web End-of-Run.[7] We also reviewed DPS mail volume from the Delivery Operations Information System (DOIS).

We assessed the reliability of data from the MCV, Time and Attendance Collection System, Web End-of-Run, and DOIS by interviewing agency officials knowledgeable about the data and reviewing related documentation. We determined that the data were sufficiently reliable for the purposes of this report.

We conducted this audit from February through April 2021, in accordance with generally accepted government auditing standards. 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 March 23, 2021 and included their comments where appropriate.

5 The system used by all installations that automates the collection of employee time and attendance.
6 An application mail processing facilities used to plan machine utilization based on volume, Clearance Times, and other criteria.
7 A server based software application that stores End-of-Run data from mail processing equipment in a relational database on a Windows 2000 server.

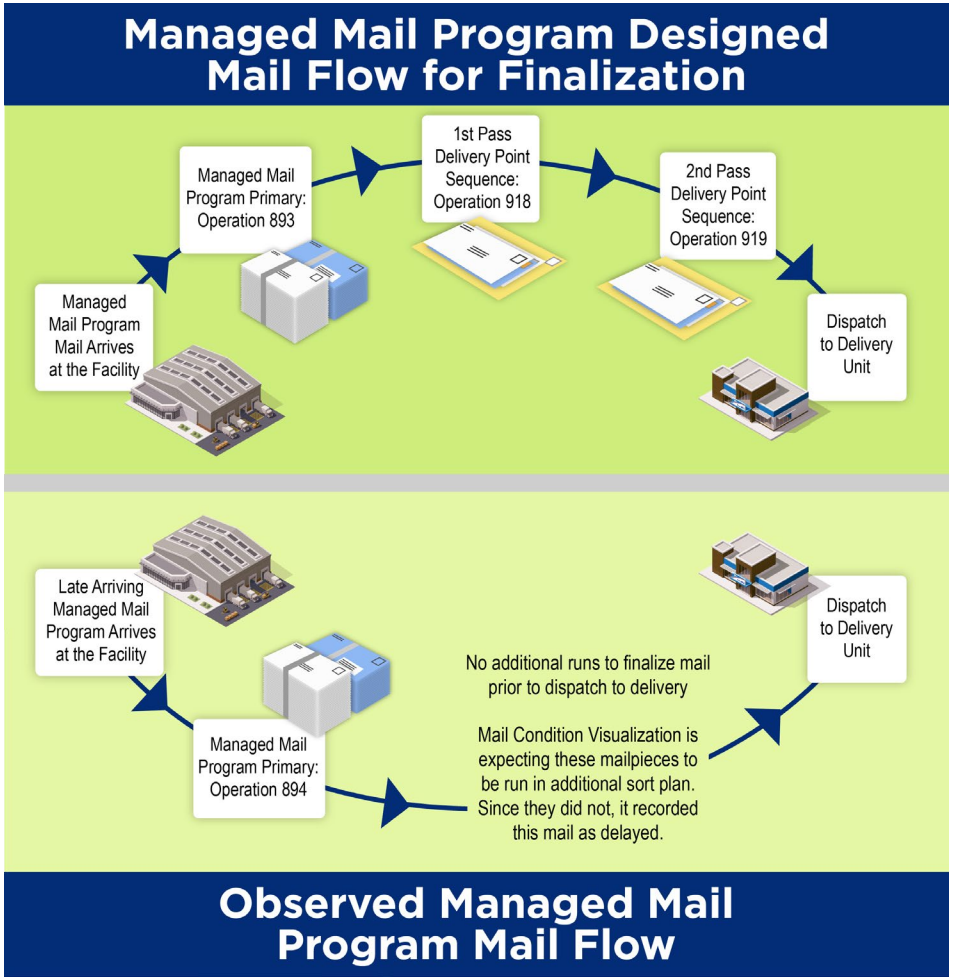
Findings Summary

From January 1 to December 31, 2020, the MCV application reported 3.6 billion pieces of delayed mail at the North Houston P&DC. However, we found that North Houston P&DC management was not processing this mail on its normal incoming sort plan.[8] Instead, the facility was processing late arriving managed mail on sort plans that were bypassing operations, causing the MCV application to report the mail as delayed. While we were unable to determine the amount of actual delayed mail at the North Houston P&DC from January 1 to December 31, 2020, we did identify that mail delays were occurring due to late arriving mail and lack of employee availability.

Finding #1: Delayed Mail Reported in the Mail Condition Visualization

At the North Houston P&DC, we found mail was not being processed on its normal incoming sort plan. Instead, the facility was processing late arriving managed mail on a sort plan using Content Identification Numbers[9] where the MCV application was expecting first and second pass DPS operations to be completed. When those operations did not occur, the mail was reported as delayed in the MCV application (see Figure 1).

Figure 1. Mail Flows at the North Houston P&DC



Source: Handbook F-95, *Statistical Programs Management Guide*, dated September 2020, and mail flow observed during Postal Service Office of Inspector General (OIG) observations at the North Houston P&DC, February 1 - 4, 2021.

8 A scheme that identifies separations made for destinations with the delivery area of the processing facility such as post offices, carrier routes, box sections, or firms.
9 3-digit numeric codes that convey information about mail class, shape, sort level, and barcode status. Content Identification Numbers are used to direct mail to the next appropriate operation and/or facility.

Specifically, to process late arriving mail and still meet service, management ran the late arriving mail on an incoming sort plan that bypassed first pass and second pass DPS operations and instead dispatched mail directly to the delivery unit. Specifically, from January 1 to December 31, 2020, the North Houston P&DC sent about 92.3 percent (1.2 billion mailpieces) of its mailpieces in DPS to delivery units. The average planned goal for facilities during this timeframe was to send 92.80 percent of its letters in DPS to delivery units.[10] However, 67 of 114 (58.77 percent) delivery units in the North Houston P&DC network received letters in DPS at a percentage below the 92.80 goal. See Table 3 for the three delivery units in the North Houston P&DC network with the lowest DPS percentage[11] for calendar year 2020.

Table 3. Delivery Units in the North Houston P&DC Network with Lowest DPS Percentage

Station	DPS Percentage	Percentage of Mail that Needed Manual Sortation
Roy Royall Station	84.75%	15.25%
South Houston Main Post Office	84.80%	15.20%
Brazoria Main Post Office	85.22%	14.78%

Source: DOIS and OIG analysis.

When first and second pass DPS operations are bypassed and the mail is dispatched directly to the delivery unit, mail must be manually sorted into DPS by the carriers resulting in an additional cost to the Postal Service.

Postal Service Headquarters management stated the MCV application was correctly counting the mail as delayed since the normal sort plan wasn't used to process the mail. However, North Houston P&DC management stated they were unable to reconcile the differences between the delayed mail reported in the MCV application and their physical observations of mail inventory at the facility, nor were we during our site visit to the North Houston P&DC from February 1 - 4, 2021. As a result, North Houston P&DC management was unable to rely on MCV delayed mail data to measure their performance and make operational decisions.

We are conducting additional audit work to review the validity of delayed mail data in the MCV application and gauge its usefulness to Postal Service management. Therefore, we are not making any recommendations in this report to address this issue.

Finding #2: Delayed Mail Causes

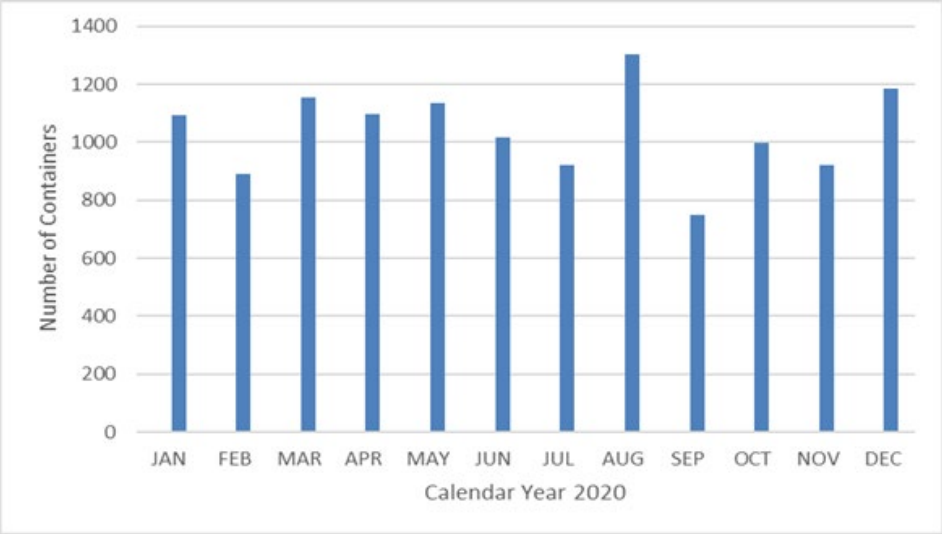
The Postal Service is required to provide prompt, reliable, and efficient service.[12] However, from January 1 to December 31, 2020, the North Houston P&DC reported about 3.6 billion pieces of delayed mail in the MCV application. While we were not able to determine how much of this mail was actually delayed versus reported as delayed, we did identify that mail delays were occurring due to late arriving mail and employee availability.

10 The planned goal of 92.80 percent comes from the eFlash application, which is a weekly operating reporting management system. It combines data from Delivery, Mail Processing, Employee Relations, Labor Relations, and Finance.
11 Calculated by dividing total amount of DPS letter mail by total amount of letter mail sent to the delivery unit.
12 Title 39 U.S. Code, Chapter 1, Section 101, Postal Policy.

Late Arriving Mail

The North Houston P&DC was the busiest facility in the nation, processing the most mail from January 1 to December 31, 2020. The facility received a lot of mail containers from other facilities after the Critical Entry Time, which is the latest time mail can be received into the Postal Service network to be processed and dispatched on time to meet service standards.[13] From January 1 to December 31, 2020, the North Houston P&DC averaged about 1,000 late arriving containers[14] every month, with the number of late arriving containers ranging from 751 in September 2020 to 1,304 in August 2020 (see Figure 2).

Figure 2. North Houston P&DC Late Arriving Containers



Source: MCV data and OIG analysis.

Additionally, from January 1 to December 31, 2020, the North Houston P&DC ranked in the top 10 nationwide for late arriving containers in 10 of the 12 months (see Table 4).

Table 4. Late Arriving Containers from January 1 to December 31, 2020

Month	National Ranking
January	6
February	11
March	4
April	9
May	4
June	3
July	2
August	1
September	6
October	6
November	4
December	33

Source: MCV.

Plant management was aware of the late arriving mail but had not communicated with the other plants from which this mail arrived to determine the root cause(s) for the late arriving mail and had not taken action to resolve the issue.

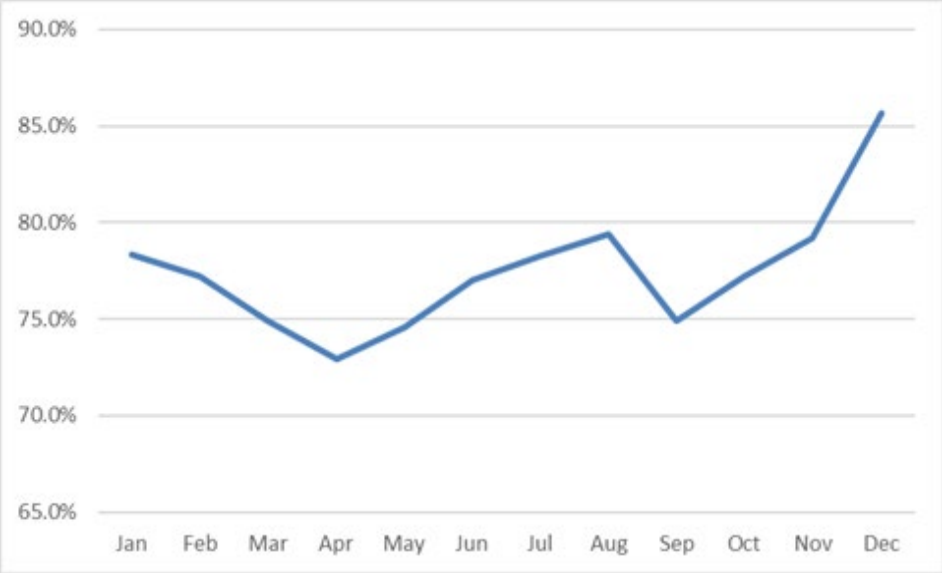
Employee Availability

Employee availability during COVID-19 also contributed to delayed mail at the North Houston P&DC. In March 2020, the President of the U.S. issued a national emergency declaration concerning the COVID-19 pandemic. The Postal Service faced unforeseen and uncontrollable challenges, including higher employee absenteeism.

13 Publication 32, *Glossary of Postal Terms*, dated July 2013.
14 To estimate how many pieces of mail there are per container, the Postal Service has conversion rates for parcels, flats, and letters, depending on the type of container that is used. The conversion rates range from seven to 288 parcels, 45 to 5,521 flats, and 303 to 21,800 letters per container.

Specifically, employee availability decreased to 72.9 percent in April 2020, increased to 79.4 percent in August 2020, and then decreased again to about 75 percent in September 2020 (see Figure 3). However, management began hiring temporary employees to assist with mail processing operations in November 2020. Specifically, the number of temporary employees increased from 322 in October 2020 to 1,115 in December 2020. As a result, employee availability increased by 6.4 percent from November to December 2020. Because management addressed employee availability by hiring temporary employees, we are not making a recommendation to address this issue.

Figure 3. Employee Availability January to December 2020



Source: Time and Attendance Collection System.

When mail arrives late to a mail processing facility and there are issues with employee availability, there is a greater risk of missing Clearance Times.[15] Specifically, during our site observations from February 1 - 4, 2021, we found 197 of 280 instances (70 percent) where mail processing operations ran past Clearance Times. The mail processing machines included Combined Input/Output Subsystem (CIOSS),[16] Delivery Barcode Sorter (DBCS),[17] and DBCS Input/Output Subsystem (DIOSS)[18] (see Table 5).

Table 5. Mail Processed after Clearance Time

Machine Type	Past Clearance Time	Number of Runs	Percent Ran Past Clearance Times
DBCS	162	215	75.3%
CIOSS	14	20	70.0%
DIOSS	21	45	46.7%
Totals	**197**	**280**	**70.4%**

Source: Web End-of-Run and OIG analysis.

This could result in mail not being delivered on-time and can adversely affect Postal Service customers, harm the brand, send mailers to competitors, or cause the Postal Service to lose revenue.

Recommendation #1

We recommend the **Southwest Division Director, Processing Operations**, coordinate with other mail processing facilities and implement mitigation strategies to decrease late arriving mail to the North Houston, TX, Processing and Distribution Center.

15 The latest time committed mail can clear an operation for proper dispatch or delivery.
16 An extension of the Delivery Barcode Input/Output Subsystem sorter that incorporates additional components for use in Postal Automated Redirection System processing.
17 Machines that sort letters and use a computerized camera to read the addresses on the mail and sort it for delivery by the letter carrier.
18 A multifunction letter mail processing system based on the DBCS with additional components for optical character recognition and image lift to the Input Subsystem as well as supporting Output Subsystem capabilities to spray barcodes on back-end processed mail.

Management's Comments

Management agreed with the report's findings and recommendation.

Regarding recommendation 1, management stated they will utilize data from Enterprise Analytics and partner with Logistics to identify trips that are late arriving and hold service meetings on a case-by-case basis. The target implementation date is April 30, 2021.

See Appendix A for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendation in the report.

All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. Recommendation 1 should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

Appendix A: Management's Comments

UNITED STATES POSTAL SERVICE

April 9, 2021

JOSEPH E. WOLSKI
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Response to Draft Audit Report – Delayed Mail at the North Houston, TX, Processing and Distribution Center (Project Number 21-074-DRAFT)

Thank you for the opportunity to respond to the Office of Inspector General (OIG) audit of "Delayed Mail at the North Houston, TX Processing and Distribution Center".

Management agrees with the findings noted in the audit report to the extent that the Mail Condition Visualization reported pieces as designed based on expected scans.

Management does agree with the recommendation as outlined in the audit per the response below.

Recommendation #1
We recommend the Southwest Division Director, Processing Operations, coordinate with other mail processing facilities and implement mitigation strategies to decrease late arriving mail to the North Houston, TX, Processing and Distribution Center.

Management Response/Action Plan
Management agrees with this recommendation and will address this opportunity by utilizing the data provided by Enterprise Analytics and partnering with Logistics to identify lanes that prompt service meetings on a case by case basis. To request closure of this recommendation example copies of several recent meeting summaries to discuss delayed mail will be provided.

Target Implementation Date
April 30, 2021

Responsible Official
Southwest Division Director, Processing Operations

Larry R. Wagener

Larry R. Wagener Jr.
Southwest Division Director, Processing Operations

cc: Manager, Corporate Audit & Response Management

OFFICE OF
INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

Contact us via our Hotline and FOIA forms.
Follow us on social networks.
Stay informed.

1735 North Lynn Street
Arlington, VA 22209-2020
(703) 248-2100

For media inquires please email
press@uspsoig.gov or call 703-248-2100.