



## AUDIT REPORT

# Late and Extra Trips at the Richmond, VA, Processing and Distribution Center

January 11, 2021



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Report Number 21-029-R21



January 11, 2021

**MEMORANDUM FOR:** SHARON M. YOUNG  
MID-ATLANTIC DIVISION DIRECTOR, PROCESSING  
OPERATIONS

A handwritten signature in black ink, reading "Adam Bieda", is centered below the memorandum header.

**FROM:** Adam Bieda  
Acting Director, Plant Evaluation Team

**SUBJECT:** Audit Report – Late and Extra Trips at the Richmond, VA,  
Processing and Distribution Center  
(Report Number 21-029-R21)

This report presents the results of our audit of Late and Extra Trips at the Richmond, VA, 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 and Executive Vice President  
Vice President, Processing and Maintenance Operations  
Vice President, Logistics  
Vice President Regional Processing Operations, Eastern  
Director, Eastern Region Logistics  
Mid-Atlantic Division Director Logistics  
Corporate Audit and Response Management

## Background

This report presents the results of our self-initiated audit of late and extra trips at the Richmond Processing and Distribution Center (P&DC) in Sandston, VA (Project Number 21-029). We conducted this audit to provide U.S. Postal Service management with timely information on operational risks at the Richmond P&DC.

On March 13, 2020, the President of the United States issued a national emergency declaration concerning the novel coronavirus (COVID-19) pandemic. The Postal Service faced unforeseen and uncontrollable challenges, including higher package volumes and employee absenteeism. In addition, on July 10, 2020, the Postmaster General announced operational changes. Specifically, the Postal Service would eliminate unnecessary late and extra trips outside of regularly scheduled transportation service. This initiative would require mail to be transported on regular routes or held until the next regular route is available.

Late trips occur when various conditions cause a delay in the arrival or departure of transportation beyond the scheduled times. From July 1 to September 30, 2020, the Postal Service reported 1,157,269 late trips from P&DCs to delivery units. When mail processing operations do not process mail timely or mail volume is above normal or expected levels, managers may have to call extra trips to transport this mail. From July 1 to September 30, 2020, the Postal Service reported 346,238 extra trips from P&DCs to delivery units. Late and extra trips to delivery units can cause disruptions and increase the number of carriers returning after 6 p.m. When carriers return after 6:00 p.m., customer service can suffer and mail collected by the carriers may be late to the P&DC. In addition, late returning carriers can cause increased overtime and penalty overtime costs.

The Richmond P&DC is in the Mid-Atlantic Division of the Logistics and Processing Operations Eastern Region and processes letters, flats, and parcels. From July 1 to September 30, 2020, it reported 7,391 late trips (fourth highest among P&DCs) and 756 extra trips (23<sup>rd</sup> highest among P&DCs) from the plant to delivery units.

## Objective, Scope, and Methodology

Our objective was to assess the causes of late and extra trips from the Richmond P&DC to delivery units.

To accomplish our objective, we analyzed Richmond P&DC late and extra trip data from July 1 to September 30, 2020. During our November 16-19, 2020, site visit, we interviewed P&DC management and observed mail processing and dock operations. We also reviewed the P&DC's operating plan to identify mail clearance times<sup>1</sup> and

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<sup>1</sup> The latest time committed mail can clear an operation for proper dispatch or delivery.

compared them to clearance times in the Web End-of-Run (WebEOR)<sup>2</sup> and Run Plan Generator (RPG) report.<sup>3</sup>

We relied on computer-generated data from the Enterprise Data Warehouse (EDW),<sup>4</sup> Application System Reporting,<sup>5</sup> and Surface Visibility Web 2.0 (SVweb).<sup>6</sup> Although we did not test the validity of controls over these systems, we assessed the accuracy of the data by reviewing existing information, comparing data from other sources, observing operations, and interviewing Postal Service officials knowledgeable about the data. Therefore, we determined the data were sufficiently reliable for the purposes of this report.

We conducted this audit from October 2020 through January 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 December 29, 2020, and included their comments where appropriate.

### **Finding #1: Missed Clearance Times**

We found that the Richmond P&DC did not always adhere to the planned clearance times<sup>7</sup> which resulted in late and extra trips. Specifically, from November 1 to November 19, 2020, we found 670 of 4,438 instances (15 percent) where operations on mail processing machines ran past clearance times. The mail processing machines included Flats Sequencing System (FSS),<sup>8</sup> Delivery Barcode Sorter (DBCS),<sup>9</sup> Automated Package Processing System (APPS),<sup>10</sup> Automated Parcel Bundle Sorter (APBS)<sup>11</sup>, and Small Package Sorting System (SPSS)<sup>12</sup> (see [Table 1](#)).

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<sup>2</sup> An application used in collecting operational data from automated and mechanized mail processing equipment.

<sup>3</sup> An application mail processing facilities used to plan machine utilization based on volume, clearance times, and other criteria.

<sup>4</sup> A repository intended for all data and the central source for information on retail, financial, and operational performance. Mission-critical information comes to EDW from transactions that occur across the mail delivery system, points-of-sale, and other sources.

<sup>5</sup> A module designed to mirror the actual reporting database.

<sup>6</sup> A website dedicated to the Surface Visibility program. SVweb provides real time transportation updates and reporting on the movement of trailers in the surface network. The data captured to identify early, on time, late or cancelled trips is also used to evaluate and improve transportation schedules.

<sup>7</sup> The latest time committed mail can clear an operation for proper dispatch or delivery.

<sup>8</sup> A two-pass flats sorting machine that automates the sorting of flat-sized mail into precise delivery order by internally refeeding first-pass mail for sorting on the second pass.

<sup>9</sup> 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.

<sup>10</sup> An automated parcel and bundle sorting system that uses a carousel-type cross belt sorter subsystem.

<sup>11</sup> An upgraded Small Parcel and Bundle Sorter with a new control system, barcode and optical character reader technology, and improved induction stations.

<sup>12</sup> An automated package sorter that includes five mail induction stations for employees to feed packages into the machine and 196 sortation bins.

**Table 1. Number of Instances Mail Processing Machines Missed Clearance Times**

<b>Machines</b>	<b>Number of Occurrences</b>	<b>Number of Machine Runs</b>	<b>Percentage Missed Clearance</b>
FSS	105	566	19%
DBCS	509	3,584	14%
APPS, APBS, and SPSS	56	288	19%
<b>Total</b>	<b>670</b>	<b>4,438</b>	<b>15%</b>

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

Clearance times were missed due to actual mailpiece volumes exceeding the planned mailpiece volumes on the mail processing machines. An RPG requires forecasted volume data to develop a schedule of mail processing operations. When forecasted volumes are inaccurate, there is increased risk the mail will not be processed on time, which leads to late and extra trips. For example, routes with the highest combined value<sup>13</sup> for late trips and late minutes from July to September 2020 included the Glenn Allen and Ridge Area 2 Branch Post Offices. During our site visit from November 16-19, 2020, we observed six trips to the Glenn Allen and Ridge Area 2 Branch Post Offices and found three late trips and one extra trip.

### FSS Machines

We found that from November 1-19, 2020, 105 of 566 instances (19 percent) where operations on the FSS machines ran past the clearance time (see [Table 2](#)).

<sup>13</sup> A combined Z-score method was used that measured in standard deviations from the median for each metric and then combined the result for a cumulative score.

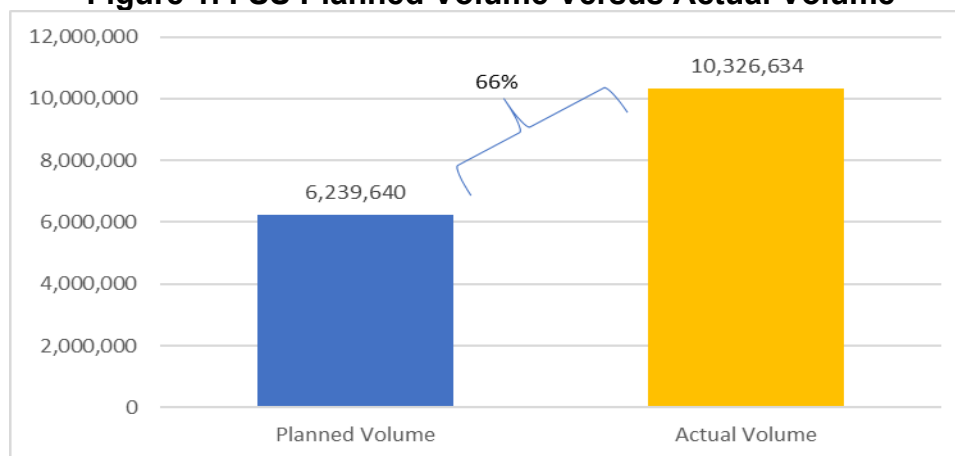
**Table 2. Number of Instances FSS Exceeded Clearance Times**

Date	Number of Occurrences	Number of Machine Runs	Percentage Missed Clearance
November 1	13	31	42%
November 2	5	35	14%
November 3	4	36	11%
November 4	8	39	21%
November 5	2	37	5%
November 6	0	39	0%
November 7	0	8	0%
November 8	0	29	0%
November 9	18	33	55%
November 10	8	24	33%
November 11	7	24	29%
November 12	15	38	39%
November 13	5	42	12%
November 14	5	8	63%
November 15	3	31	10%
November 16	6	32	19%
November 17	2	29	7%
November 18	0	23	0%
November 19	4	28	14%
<b>Total</b>	<b>105</b>	<b>566</b>	<b>19%</b>

Source: WebEOR and OIG analysis.

This was caused by actual mailpiece volumes exceeding the planned mailpiece volumes on the FSS machines. Specifically, from November 1-19, 2020, the actual volume exceeded the planned volume by 66 percent (see Figure 1).

**Figure 1. FSS Planned Volume Versus Actual Volume**



Source: WebEOR and OIG analysis.

## DBCS Machines

We found 509 of 3,584 instances (14 percent) where operations on the DBCS machines ran past clearance times from November 1-19, 2020 (see Table 3).

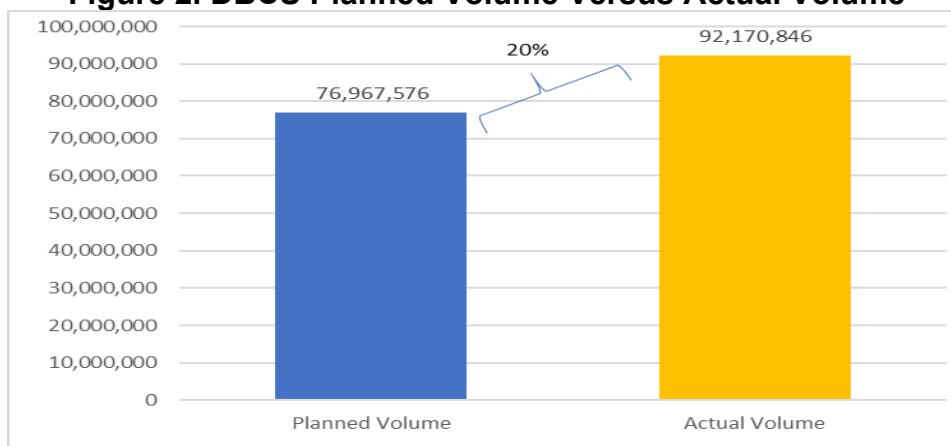
**Table 3. Number of Instances DBCS Exceeded Clearance Times**

Date	Number of Occurrences	Number of Machine Runs	Percentage Missed Clearance
November 1	11	216	5%
November 2	57	371	15%
November 3	10	44	23%
November 4	30	191	16%
November 5	36	215	17%
November 6	30	219	14%
November 7	9	155	6%
November 8	23	159	14%
November 9	26	194	13%
November 10	5	160	3%
November 11	24	118	20%
November 12	1	19	5%
November 13	78	470	17%
November 14	15	153	10%
November 15	22	157	14%
November 16	24	129	19%
November 17	61	306	20%
November 18	14	117	12%
November 19	33	191	17%
<b>Total</b>	<b>509</b>	<b>3,584</b>	<b>14%</b>

Source: WebEOR and OIG analysis.

This was caused by actual mailpiece volume exceeding the planned volume on the DBCS machines. Specifically, from November 1-19, 2020, actual volume exceeded planned volume by 20 percent (see [Figure 2](#)).

**Figure 2. DBCS Planned Volume Versus Actual Volume**



Source: WebEOR and OIG analysis.

### Package Machines

We found 56 of 288 instances (19 percent) where package operations on the APPS, APBS, and SPSS machines exceeded the clearance time from November 1-19, 2020 (see Table 4).

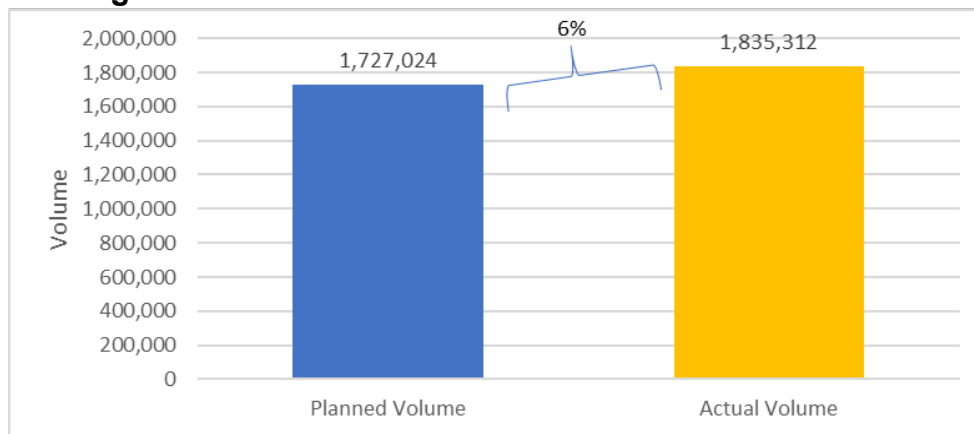
**Table 4. Number of Instances Package Machines Exceeded Clearance Times**

Date	Number of Occurrences	Number of Machine Runs	Percentage Missed Clearance
November 1	4	30	13%
November 2	0	10	0%
November 3	3	11	27%
November 4	2	10	20%
November 5	3	12	25%
November 6	3	11	27%
November 7	6	32	19%
November 8	2	18	11%
November 9	1	11	9%
November 10	2	17	12%
November 11	4	14	29%
November 12	5	14	36%
November 13	4	15	27%
November 14	9	28	32%
November 15	2	14	14%
November 16	0	8	0%
November 17	2	10	20%
November 18	2	12	17%
November 19	2	11	18%
<b>Total</b>	<b>56</b>	<b>288</b>	<b>19%</b>

Source: WebEOR and OIG analysis.

For the APPS machines, the actual volume exceeded planned volume by six percent (see Figure 3). For the APBS and SPSS, the actual volume did not exceed the planned volume.

**Figure 3. APPS Planned Volume Versus Actual Volume**



Source: WebEOR and OIG analysis.

### Site Observations

We conducted site observations at the Richmond P&DC from November 16-19, 2020 and found mail processing machines running past clearance times 17 percent of the time. Specifically, clearance times were missed 11 percent of the time on the FSS machines and 18 percent on the DBCS machines. Additionally, clearances times were missed 15 percent of the time for package machines, which included the APPS, APBS, and SPSS (see Table 6).

**Table 6. Number of Instances Machines Exceeded Clearance Times From November 16 to 19, 2020**

Machines	Number of Occurrences	Number of Machine Runs	Percentage Missed Clearance
FSS	12	112	11%
DBCS	132	743	18%
APPS, APBS, and SPSS	6	41	15%
<b>Total</b>	<b>150</b>	<b>896</b>	<b>17%</b>

Source: WebEOR and OIG analysis.

**Recommendation #1:** We recommend the **Mid-Atlantic Division Director, Processing Operations**, review the methodology for calculating planned volumes to ensure they are accurate.

## Management's Comments

Management agreed with the finding and recommendation.

Regarding recommendation 1, management stated that they will provide refresher training to In-Plant Support personnel on the aspects of the RPG program to ensure calculated planned volumes are as accurate as possible. Based on subsequent conversations, the target implementation date is February 28, 2021.

Additionally, management agreed with the finding but noted there were several factors that hindered their ability to accurately project volume. This included historic increases in package volume, staffing, and employee availability issues due to the COVID-19 pandemic. Other factors included an increase in mail-in ballots due to the COVID-19 pandemic and peak season for holiday mailings beginning sooner than previous years.

Further, management disagreed that the Postmaster General mandated operational changes to eliminate unnecessary late or extra trips on July 10, 2020, stating that he and Postal Service Headquarters did not direct a prohibition of late or extra trips.

Lastly, management stated that since the report was dated December 30, 2020, the audit was conducted from October 2020 through December 2020, and not through January 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 and management's corrective actions should resolve identified issues.

Regarding the factors that hindered the Postal Service's ability to accurately project volume, we acknowledged in this report that the Postal Service faced unforeseen and uncontrollable challenges, including higher package volumes and employee absenteeism during the COVID-19 pandemic.

Regarding the operational changes to eliminate unnecessary late or extra trips, we did not state that it was mandated or that the Postmaster General and Postal Service Headquarters prohibited late or extra trips. We stated that the Postal Service would eliminate unnecessary late and extra trips outside of regularly scheduled transportation service, which is what management stated in their comments.

Regarding the dates the audit was conducted, the draft report was issued to the Postal Service on December 30, 2020. However, since the final report will be issued in January 2021, the audit was conducted from October 2020 through January 2021, and not through December 2020.

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



January 7, 2021

JOSEPH E. WOLSKI  
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Response to Draft Audit Report – Late and Extra Trips at the Richmond, VA,  
Processing and Distribution Center (Project Number 21-029)

Thank you for the opportunity to respond to the Office of Inspector General (OIG) draft audit report, "Late and Extra Trips at the Richmond, VA, Processing and Distribution Center".

Management disagrees with the statement in the Background section of the audit document stating that operational changes were mandated by the Postmaster General on July 10, 2020 to eliminate unnecessary late or extra trips.

In late June or early July 2020, Postal Service Headquarters Operations discussed with the Postmaster General the initiative to mitigate unnecessary late and extra trips that it began approximately two years previously. The Postmaster General had reviewed USPS OIG Audit Report No. 19XG013NO00O-R20, "U.S. Postal Service's Processing Network Optimization and Service Impacts (June 16, 2020), which discussed late and extra trips and found that generally the Postal Service's processing network was not operating at optimal efficiency. The Postmaster General agreed with this effort and supported a renewed emphasis on adhering to existing transportation schedules to avoid unnecessary costs and improve efficiency and timeliness of mail delivery.

Neither the Postmaster General nor Postal Service Headquarters directed that late and extra trips were prohibited under any circumstances. Instead, the Postal Service clarified that late and extra trips that were necessary to effect timely delivery of mail were permitted. In addition, in August 2020 the Postmaster General announced that effective October 1, 2020, the Postal Service would engage standby resources in all areas of operations, including transportation, in order to expedite the delivery of Election Mail.

Management agrees with the findings noted in the audit report related to the data for the number of late and extra trips created by missed planned clearance times. We would like to note that the time frame during which observations were made included several factors that forestalled accurate volume projections.

- The COVID-19 pandemic generated a historic increase in the volume of packages that needed to be processed while also negatively impacting staffing and employee availability due to exposures and quarantine protocols.

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- Due to the COVID-19 pandemic in an election year, mail-in ballots were received in far greater numbers than any year in the past and a focus on ensuring timely delivery of those ballots required significant measures to ensure compliance, including processing all volumes received any given day, even if this resulted in late or extra trips.
- The beginning of peak season for holiday mailings began even sooner than in previous years with unprecedented mail volumes. While other package carriers can refuse to accept retail mailer's packages when their networks are full, the Postal Service does not have similar capabilities. This situation further hindered our ability to forecast and plan accurately.

Management would also like to note that since the report is dated December 30, 2020, that the audit was conducted from October 2020 through December 2020 and not through January 2021 as noted in the final paragraph in the Objective, Scope, and Methodology section.

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

**Recommendation #1**

We recommend the Mid-Atlantic Division Director, Processing Operations, review the methodology for calculating planned volumes to ensure they are accurate.

**Management Response/Action Plan**

Management agrees that calculating planned volumes to ensure accuracy is important, however during these unprecedented times, particularly during the time frame this audit was conducted, too many variables hindered that accuracy. Management will provide refresher training on the aspects of the RPG program to Richmond P&DC In-Plant Support personnel to ensure calculated planned volumes are as accurate as possible. To request closure of this recommendation a copy of the training sign-off will be provided.

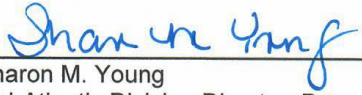
**Target Implementation Date**

February 2021

**Responsible Official**

Manager, In-Plant Support

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Sharon M. Young  
Mid-Atlantic Division Director, Processing Operations

cc: VP, Eastern Regional Processing  
Manager, Corporate Audit & Response Management