OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

Efficiency Review of the Chicago, IL, Network Distribution Center – Operations and Transportation

Audit Report

Report Number
NO-AR-15-003

January 22, 2015

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

Highlights

Opportunities exist to improve the efficiency of some operations at the Chicago NDC. The Chicago NDC did not attain the average productivity of comparable NDCs. We also found some mail transport equipment with unused space, equipment not properly restrained, and some trailers were not filled to capacity.

Background

The U.S. Postal Service has 21 network distribution centers (NDC) linked by a dedicated transportation network. NDCs are primarily responsible for sorting and transporting bulk mail — Standard Mail, Periodicals, and Package Services.

Our objective was to evaluate the efficiency of the Chicago, IL, NDC's mail processing and transportation operations. This report is one in a series and also addresses related operations and transportation at the Des Moines, IA, and Pittsburgh, PA, NDCs.

What The OIG Found

Opportunities exist to improve the efficiency of some operations at the Chicago NDC. The Chicago NDC did not attain the average productivity of comparable NDCs. Specifically, we found the Chicago NDC's parcel sorter machines and sack sorter operations were inefficient and determined the facility used more workhours in mailhandler operations than necessary. As a result, the Chicago NDC could eliminate 119,572 workhours from its mail processing operations.

We also found some mail transport equipment with unused space, equipment not properly restrained for transport, and some trailers from the Chicago NDC headed to Pittsburgh and Des Moines NDCs were not filled to capacity. These conditions occurred because officials did not properly staff operations based on mail volume and did not have the latest technology installed on parcel sorter machines to automate parcel distribution. In addition, the Powered Industrial Vehicle Management System used for tracking motorized equipment was not working; and employees did not fully use the Yard Management System to ensure efficient trailer yard moves or follow NDC guidelines for properly sorting, labeling, and consolidating mail. Further, management did not review its highway contract route transportation requirements. The Postal Service could save about $5.6 million annually by eliminating unnecessary workhours, ensuring compliance with NDC guidelines, and eliminating three underutilized transportation round trips.

What The OIG Recommended

We recommended the vice president, Great Lakes Area, instruct the Chicago NDC to eliminate 119,572 workhours at the Chicago NDC by evaluating staffing and scheduling; installing singulate, scan, and induction equipment on parcel sorter machines; repairing and using the Powered Industrial Vehicle Management System; and fully using the Yard Management System to assign trailers to dock doors. We also recommended the vice presidents, Great Lakes, Eastern, and Western areas, reinforce compliance with NDC guidelines, remove unnecessary transportation, and reinforce existing safety procedures for restraining mail transport equipment.

Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

January 22, 2015

MEMORANDUM FOR: JACQUELINE K. STRAKO
VICE PRESIDENT, GREAT LAKES AREA

E-Signed by Robert Batta
VERIFY authenticity with e-Sign

FROM: Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Audit Report – Efficiency Review of the Chicago, IL, Network Distribution Center – Operations and Transportation (Report Number NO-AR-15-003)

This report presents the results of our Efficiency Review of the Chicago, IL, Network Distribution Center (NDC) – Operations and Transportation. The report focuses on the Chicago Tier 1 NDC and its associated Tier 2 NDCs in Des Moines, IA, and Pittsburgh, PA, and associated feeder processing facilities (Project Number 14XG035NO000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact James L. Ballard, director, Networking Processing and Transportation, or me at 703-248-2100.

Attachment

cc: Corporate Audit and Response Management

Table of Contents

Findings

We found the Chicago NDC's PSMs and sack sorter operations were inefficient. Additionally, the Chicago NDC used more workhours than necessary and, as a result, could eliminate 119,572 workhours from mail processing operations.

Introduction

This report presents the results of our efficiency review of the Chicago, IL, Network Distribution Center's (NDC) operations and transportation; its associated NDCs in Des Moines, IA, and Pittsburgh, PA; and associated feeder processing facilities (Project Number 14XG035NO000). Our objective was to evaluate the efficiency of the Chicago NDC's mail processing and transportation operations. See Appendix A for additional information about this self-initiated audit.

In 2009, the U.S. Postal Service began realigning its 21 bulk mail centers (BMC)[1] into NDCs. NDCs are part of a national system of automated mail processing facilities linked by a dedicated transportation network. The Postal Service designed NDCs to consolidate mail processing and dispatch to increase operational efficiency and reduce workhours and transportation costs. The Postal Service reported savings of over $111 million in transportation and processing costs based on the realignment. NDCs are categorized as Tier 1, 2, or 3[2] depending on the operations their employees perform. All 21 NDCs perform at least Tier 1 functions. Tier 2 and 3 NDCs act as transfer and consolidation points for other NDCs as well. The Chicago NDC is Tier 1.

The Chicago NDC uses two parcel sorter machines (PSM) to sort and distribute parcels. Neither PSM is equipped with a Singulate, Scan, and Induction Unit (SSIU), which is used to automate the induction of barcoded parcels onto parcel sorting machines and into a single, optimally spaced line of separated parcels. The facility also has a Yard Management System (YMS) that improves yard management, resource use, and on-time deliveries by optimizing how yard resources are used and helping to ensure trailers move efficiently. The Chicago NDC also has the Powered Industrial Vehicle Management System (PIVMS), which helps supervise mail movement at the facility. The system locates the equipment and measures the amount of time it is used, among other things.

As part of the NDC implementation process, management instituted manual sorting operations in and adjacent to dock operations at processing and distribution centers (P&DCs) and processing and distribution facilities (P&DFs). Manual operations separate and consolidate mail for transport to Tier 2 NDCs. Further, the Postal Service added transportation between Tier 1 service areas and Tier 2 NDCs to accommodate manually sorted Tier 1 mail.

Conclusion

Opportunities exist to improve the efficiency of some operations at the Chicago NDC. The Chicago NDC did not attain the average productivity of comparable NDCs. Specifically, we found the Chicago NDC's PSMs and sack sorter operations were inefficient. Additionally, the Chicago NDC used more workhours than necessary and, as a result, could eliminate 119,572 workhours from mail processing operations. We estimate this could produce an annual cost avoidance of over $4.3 million.

These conditions occurred because:

- Officials did not properly staff operations based on mail volume;

1 The Postal Service developed this dedicated network to reduce delays and damage from handling bulk mail in a system designed primarily for letter mail that has to compete with First-Class Mail and other classes of mail for processing time and transportation space. The term "bulk mail" includes Package Services, Periodicals, and Standard Mail with service standards from 1 to 10 days. Some NDCs have incorporated surface transfer center operations that handle significant volumes of First-Class Mail and Priority Mail.

2 Tier 1 NDCs are responsible for distributing local mail and destinating Standard Mail, Periodicals, and Package Services. Tier 2 NDCs are responsible for distributing outgoing Standard Mail, Periodicals, and Package Services, as well as Tier 1 responsibilities. Tier 3 NDCs have both Tier 1 and Tier 2 NDC responsibilities and are consolidation points for less than truck load volumes from Tier 2 sites.

We estimate the Postal Service could save about $1.3 million in transportation costs annually by complying with NDC guidelines and combining or eliminating low-volume round trips.

- The latest technology – singulate, scan, and induction equipment – was not installed on PSMs to automate sorting and parcel distribution;
- PIVMS for tracking motorized equipment in the facility was not working; and
- Employees were not fully using the YMS to ensure efficient trailer yard moves.

We also found employees at the Chicago NDC were not consolidating mail trays and flat tubs in some mail transport equipment (MTE) rolling stock containers[3] into fewer containers at plant docks. Accordingly, some trailers were carrying excess MTE. These conditions occurred because officials did not always follow NDC guidelines[4] for properly consolidating mail into fewer containers prior to transporting mail to the Pittsburgh and Des Moines NDCs.

Furthermore, we determined that some Chicago NDC operations and associated transportation to and from the Des Moines and Pittsburgh NDCs and their feeder processing facilities could be more efficient. In addition, we found the Postal Service underused transportation overall between the Chicago and Des Moines NDCs and the Chicago and Pittsburgh NDCs. This occurred because management did not fully review its highway contract route (HCR) transportation requirements among the NDCs and feeder processing facilities during NDC realignment and added some unnecessary trips.

These conditions occurred because employees:

- Did not always follow NDC guidelines for consolidating mail; and
- Did not fully use existing transportation.

Finally, we observed that employees did not properly restrain some MTE rolling stock and pallets in trailers for transport to and from the NDCs. This occurred because employees were not following Postal Service policy for restraining trailer loads and managers were not reinforcing the policy.[5]

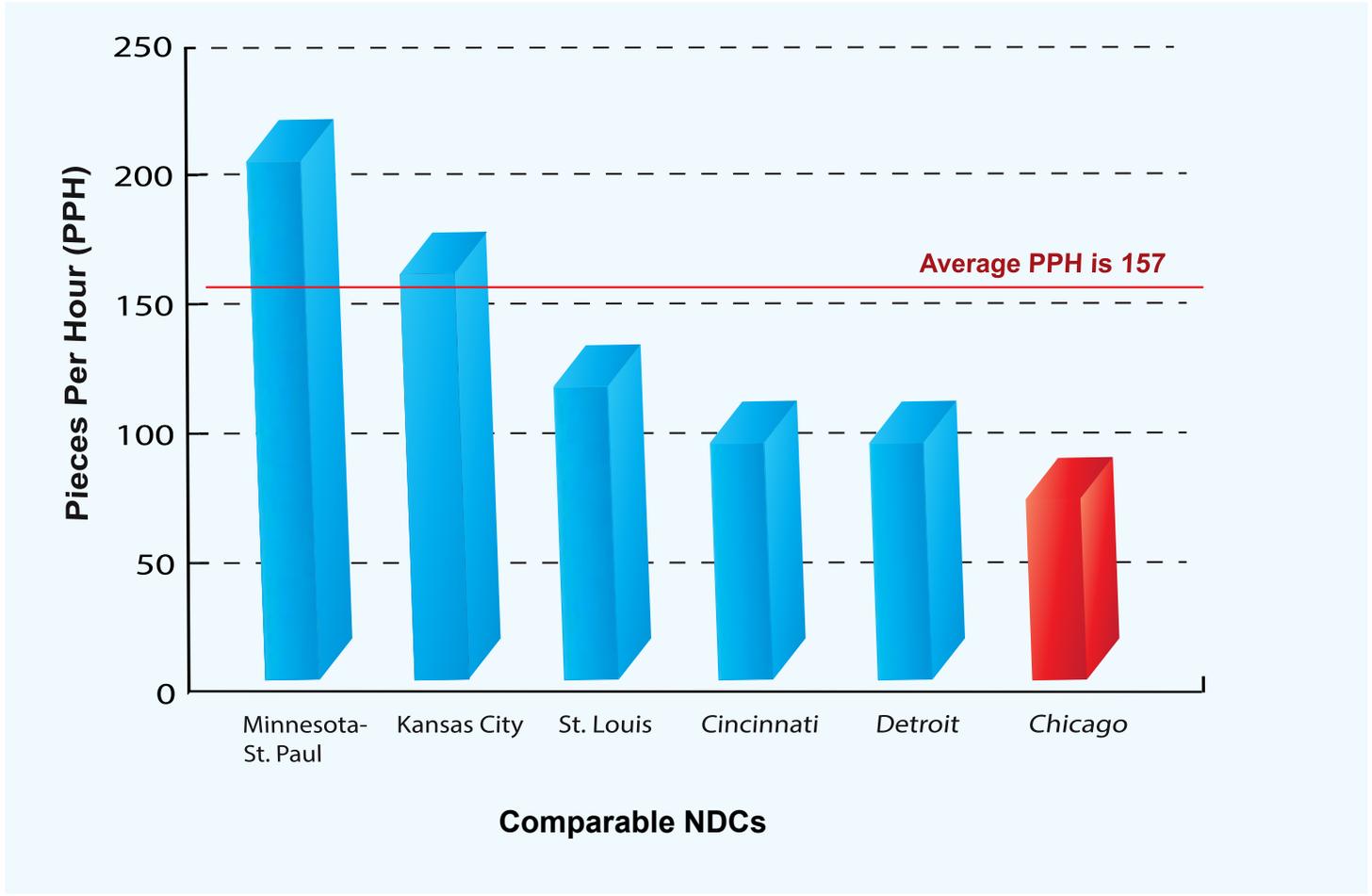
We estimate the Postal Service could save about $1.3 million in transportation costs annually by complying with NDC guidelines and combining or eliminating low-volume round trips.

Mail Processing Operations

We determined the Postal Service has opportunities to improve productivity at the Chicago NDC by managing workhours and manually processing more pieces per hour (PPH). From June 29, 2013 through July 4, 2014 the Chicago NDC did not attain the average productivity of comparable NDCs. Comparing the Chicago NDC to NDCs with similar equipment and mail distribution processes provides a benchmark for operational efficiency. The Chicago NDC had a PPH productivity of 97, while the average PPH for similar NDCs was 157 (see Figure 1).

3 Various container types used to transport individual mail handling units (sacks, tubs, trays, packages).
4 In 2009 (as part of the NDC activation process), the Postal Service's acting manager, NDC Operations, issued *Network Distribution Center Activation Guidelines* for the proper sortation, labeling, and consolidation of NDC mail to be transported for processing.
5 Logistics Order LO201101, dated February 8, 2011, prescribes policies for the safe loading and proper restraint of mail during transportation to facilities. In particular, the order states that, "All vehicles transporting containers and pallets must have the load secured with two restraining devices about every 10 feet."

Figure 1: Comparable NDCs' PPH Productivity June 29, 2013 through July 4, 2014



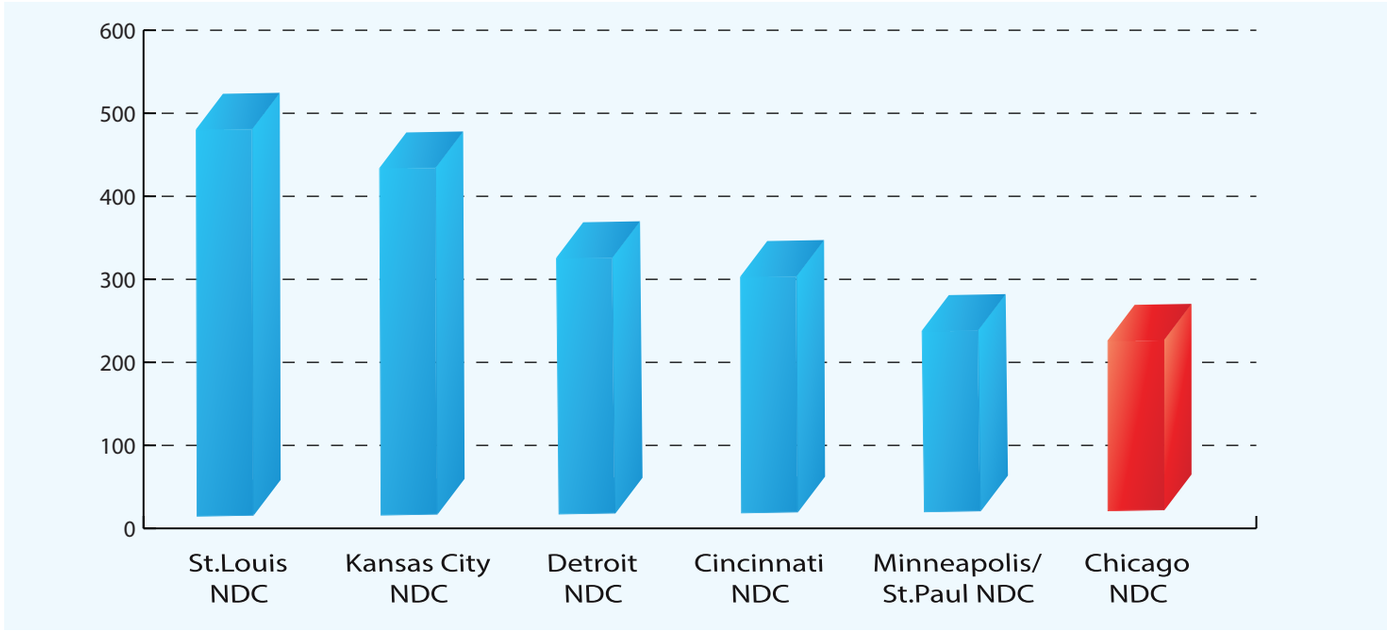
Source: Postal Service Enterprise Data Warehouse (EDW).

We found the Chicago NDC could be more productive on the PSM and in sack sorter machine (SSM) operations and the allied operations could be more efficient.

Parcel Sorting Machines.[6] We determined the Chicago NDC uses its PSMs inefficiently. From October 1, 2013 through September 8, 2014, the Chicago NDC had an average productivity of 288 total PPH, while comparable NDCs had an average of 397 total PPH (see Figure 2).

6 A large machine used to sort parcels at an NDC. Mail may be inducted into PSMs at keying stations or at automated SSIUs.

Figure 2. PSM Productivity Comparison October 1, 2013, through September 8, 2014



Source: EDW.

This condition occurred because the PSM operation is not staffed according to the available mail volume, supervisors did not properly manage the number of keyers assigned to the operation based on mail volume, and we found instances of employees who were idle because they were assigned to machines but had no mail to work (see Figure 3).

Figure 3. PSMs at the Chicago NDC Plant

PSMs observed running with no mail on the machines. Keyers were assigned to the operation but there is no mail on the main belt.
Source: U.S. Postal Service Office of Inspector General (OIG) photograph taken October 16, 2014 (Chicago NDC).

We also determined the Chicago NDC does not currently have an SSIU.[7] An SSIU will increase induction capacity and reduce required manual induction operation workhours. Additionally, increased induction capacity will shorten the processing window necessary to handle the volume. Each PSM equipped with SSIU automated induction will replace about nine induction clerks per day.

Additionally, over 10 percent of the mail processed on the facility's PSMs is originating mail that should not be worked at the Chicago NDC. We estimate that, because management did not reinforce NDC guidelines, the Chicago NDC used over 10,000 workhours to sort mail that should have gone to the Pittsburgh and Des Moines NDCs for distribution. Under the NDC guidelines, originating mail should go directly to its Tier 2 NDCs in Pittsburgh and Des Moines for processing.

SSM. We determined the Chicago NDC SSMs were inefficient. Specifically, the Chicago NDC had an average productivity of 44 total pieces fed per workhour, while comparable NDCs had an average productivity of 107 total pieces fed per workhour for fiscal year (FY) 2013, Quarter (Q) 4, through FY 2014, Q3. This condition existed because supervisors were not staffing the operation according to available mail volume.

During our observations, we noticed the SSM processing very little mail. At times we observed one or two keyers at their stations with no mail to process and throughout observations on all tours, we saw very little volume being processed on the machine at any given time. We observed employees idle at the machines when there was no mail for them to work (see Figure 4).

Figure 4. SSM with Few Mailpieces to be Processed at the Chicago NDC

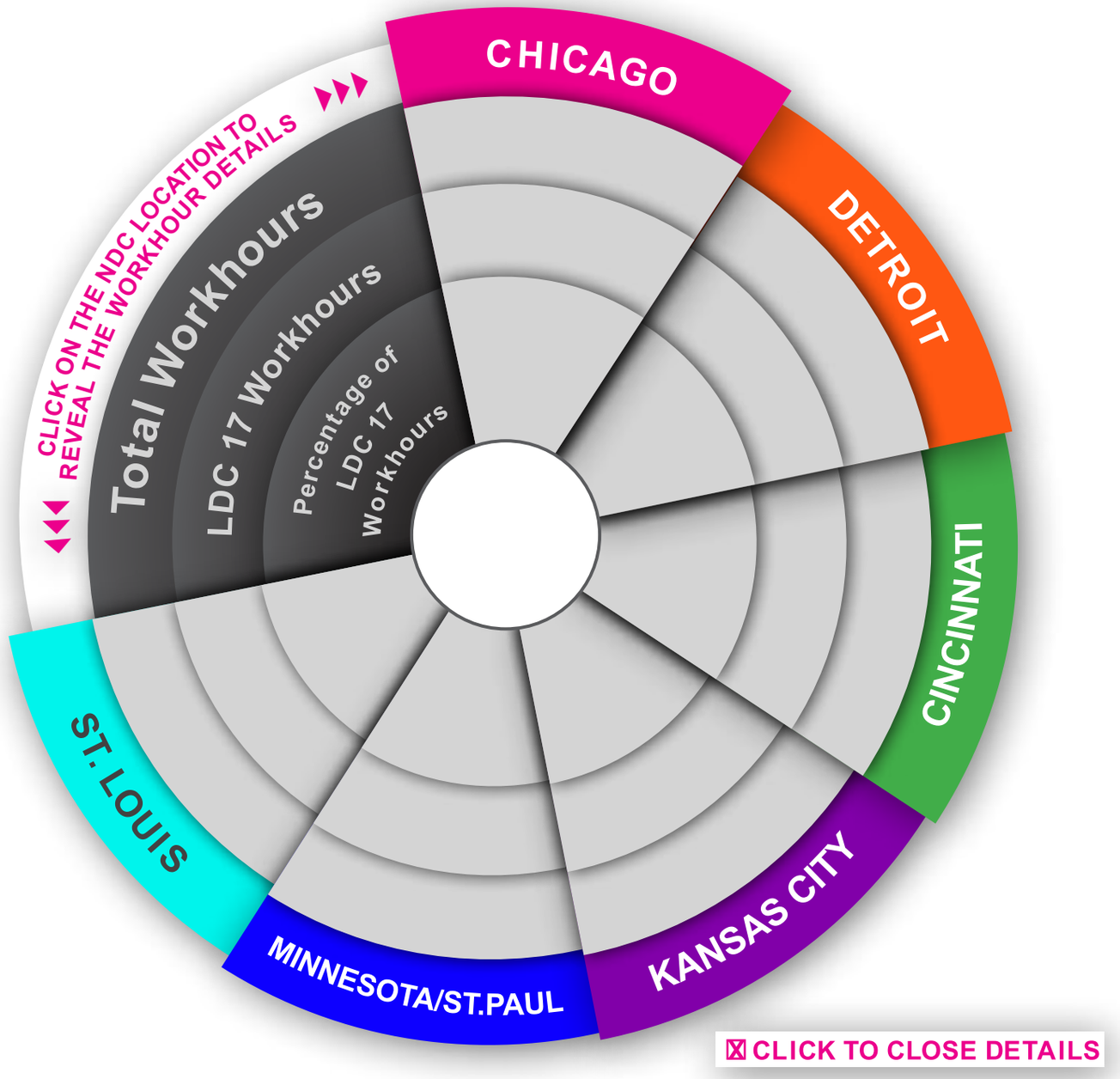
One person working the keyer station for the SSM with little mail.
Source: OIG photograph taken October 15, 2014 (Chicago NDC).

Labor Distribution Code (LDC) 17 - Allied Operations. Allied operations provide another opportunity for the Chicago NDC to improve efficiency. The Chicago NDC used a higher percentage of mailhandler workhours than comparable facilities (see Figure 5).

7 A scanner that automates the entry of barcoded parcels onto the PSMs at NDCs.

The Chicago NDC used a higher percentage of mailhandler workhours than comparable facilities.

Figure 5. LDC 17 Percentage of Total Workhours – Chicago and Comparable NDCs July 1, 2013, through June 30, 2014



Source: EDW.

This condition occurred because management had not accurately adjusted workhours to match workload by properly using the PIVMS[8] and the YMS.[9] The PIVMS is designed to give management the necessary information to reduce the workhours used to

8 A fully functional solution for managing mobile and fixed industrial equipment in indoor or outdoor environments. This wireless fleet management system provides unprecedented control, accountability and monitoring for mobile assets, such as forklifts, tow tractors, and pallet riders.

9 The NDC yard control system that can track vehicles from their entrance into the facilities yard, the time the vehicle is docked, and where the vehicle will be spotted in the yard for redeployment to another facility.

transport mail and equipment throughout the plant and to reduce the pieces of equipment needed to perform the work.

PIVMS. Managers at the Chicago NDC are not using the PIVMS. Equipment needs to be repaired or installed on forklift and tow motors for the PIVMS to operate. Management stated that it has been several years since the system has been used to monitor employees (see Figure 6).

Figure 6. Forklifts Idled at the Chicago NDC Plant

Two forklifts that were observed not being used.
Source: OIG photograph taken October 15, 2014 (Chicago NDC).

During the audit, management took corrective action to repair equipment and update software requirements for PIVMS. Once this action is completed, management will be able to evaluate employees' activities to better align their assignments to workload and reduce workhours.

YMS. The Chicago NDC could further reduce workhours for platform operations by correctly using the YMS to improve the process of assigning incoming and outgoing surface transportation to dock doors. We found that trips to and from the Pittsburgh and Des Moines NDCs were not assigned to specific dock doors at the same general location in the plant. As a result, employees were unnecessarily moving mail from one side of the building to the other. This occurred because the Chicago NDC was not fully using the YMS. For example, during the week of our observations, we determined that, for 2,341 inbound trips, employees assigned 64 percent of dock door locations manually rather than use the YMS. As a result, personnel on the workroom floor were not aware of the trailer locations. The YMS can assign incoming and outgoing trips to specific dock doors based on truck contents and arrival time.

As a result, the Chicago NDC used more workhours than necessary and could eliminate 119,572 workhours from mail processing operations. We estimate this could produce an annual cost avoidance of over $4.3 million.

Unnecessary and Underused Highway Contract Route Transportation

We observed some MTE rolling stock containers at the Chicago NDC awaiting transport to the Des Moines and Pittsburgh NDCs were not loaded to capacity. This occurred because employees were not consolidating the rolling stock containers as required by

NDC guidelines.[10] As a result, the Postal Service was using more rolling stock containers and trailer space than necessary. These conditions resulted in additional unnecessary transportation of mail among the Chicago, Des Moines, and Pittsburgh NDCs, as well as additional handling and workhours (see Figure 7).

Figure 7. Underused MTE to be Loaded Into Trailers at the Chicago NDC

MTE rolling stock equipment leaving the Chicago NDC with very little mail volume.
Source: OIG photographs taken October 15, 2014 (Chicago NDC).

Based on our analysis of existing HCR transportation, we concluded that the Postal Service could eliminate two daily round trips between the Chicago and Pittsburgh NDCs.[11] Additionally, one daily round trip between the Chicago and Des Moines NDCs could be eliminated. This would make transportation more efficient.

While we realize the NDC tiered concept resulted in low volumes available for return trips, we believe the Postal Service could eliminate over 867,616 miles and save about $1.3 million annually in HCR costs without reducing on-time service performance (see Appendix B for our detailed analysis of trips).

Safety

During our review of the loading and unloading of containers at the Chicago NDC, we consistently observed employees not following the policy for restraining trailer loads. Postal Service policy requires two straps for every 10 feet of rolling stock;[12] however, employees in some cases used only two straps at the back end of the entire load in the 53 foot trailers to secure MTE rolling stock. This increases the risk the load will shift during transport, potentially injuring employees and contractors, damaging mail, and endangering the general public in the event that contents spill onto roadways (see Figure 8).[13]

10 In the *Network Distribution Center Activation Guidelines,* Tier 1 NDC Communications, dated June 15, 2009, less than full MTE rolling stock "must be consolidated before loading to maximize container and transportation utilization."
11 Contract number 150M! would run during heavy volume period between September and October.
12 Logistics Order LO201101, dated February 8, 2011, prescribes policies for safe loading and proper restraint during transportation of mail to facilities. In particular, the order states that, "All vehicles transporting containers and pallets must have the load secured with two restraining devices about every 10 feet."
13 Improperly restrained trailer loads of mail have resulted in unnecessary movement of containers within trailers, damaging containers and mail.

During our review of the loading and unloading of containers at the Chicago NDC, we consistently observed employees not following the policy for restraining trailer loads.

Figure 8. Inadequate Number of Load Restraining Straps

A trailer that had only two straps at the end of the load and no other straps restraining the rolling stock.
Source: OIG photograph taken September 2, 2014 (Chicago NDC).

We also determined that employees did not always secure MTE rolling stock pins in the stake pockets available on the trailer bed floors, as shown in Figure 9. This increases the risk of the load not being properly restrained. Safety procedures require employees to secure MTE rolling stock that is heavy with mail (such as over-the-road [OTR] containers) in the stake pockets.

Figure 9. Large OTR Container and Wire Cage Not Secured in Trailers at the Chicago NDC

Trailers leaving the Chicago NDC with pins not in the stake pockets.
Source: OIG photographs taken October 15, 2014 (Chicago NDC)

Recommendations

We recommend management eliminate 119,572 workhours at the Chicago NDC, reinforce compliance with NDC guidelines, remove unnecessary transportation, and reinforce existing safety procedures for restraining mail transport equipment.

We recommend the vice president, Great Lakes Area, instruct Chicago Network Distribution Center management to:

1. Increase efficiency by eliminating 119,572 workhours to produce an annual cost avoidance of over $4.3 million by:
   - Properly adjusting staffing and scheduling within the parcel sorter machine and sack sorter machine operations.
   - Installing a singulate, scan, and induction unit on the parcel sorter machines.
   - Repairing the Power Industrial Vehicle Management System.
   - Assigning specific dock doors through the Yard Management System to reduce unnecessary movement of mail for incoming and outgoing trips.
2. Reinforce plant employee compliance with network distribution center guidelines for properly consolidating mail prior to transport.
3. Remove two unnecessary highway contract round trips between the Chicago and Pittsburgh network distribution centers (NDCs) during periods outside of Fall Mailing Season and one round trip between the Chicago and Des Moines NDCs.
4. Reinforce existing safety procedures requiring restraint of mail transport equipment rolling stock containers in trailers.

Management's Comments

Management agreed with our findings and recommendations.

In response to recommendation 1, management agreed to increase efficiency by eliminating 119,572 workhours by:

- Implementing a staffing realignment of the parcel machine from July 2014 and completing a staffing realignment for the SSM by March 31, 2015.
- Installing a singulate, scan and induction unit by June 30, 2015.
- Completing the repair of the PIVMS that is currently under way and providing training on its use. Management stated via separate correspondence that this will be completed by February 28, 2015.
- Obtaining additional support and training for the yard management system. Management stated via separate correspondence that this will be completed by February 28, 2015.

Regarding recommendation 2, management agreed to train employees on proper labeling and consolidation of containers for transportation with a targeted completion date of February 28, 2015.

Regarding recommendation 3, management agreed to eliminate five direct trips to Des Moines, IA, and will review direct trips to Pittsburgh, PA, for possible elimination with a targeted completion date of March 31, 2015.

Regarding recommendation 4, management agreed to train employees and take corrective action to enforce safety requirements pertaining to mail transport equipment. This action was initiated June 30, 2014 and will be a continuous activity through service talks.

See Appendix E for management's comments, in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations in the report and the actions taken or planned will address the issues identified in the report.

The OIG considers all of the recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

Appendices

Click on the appendix title to the right to navigate to the section content.

Appendix A: Additional Information

Background

The Postal Service's NDCs are part of a national system of 21 automated mail processing facilities linked by a dedicated transportation network. This system is dedicated to sorting and transporting bulk mail – Package Services, Standard Mail, and Periodicals. Network Operations is responsible for domestic mail processing and transportation networks.

After several years of declining mail volume, a changed mail mix, and mailers entering more mail near final destinations, the volume of mail that former BMCs processed has declined significantly. Needing to reduce costs and recognizing the opportunities to make better use of space in trailers sent on long-distance transportation routes and improve mail dispatching and processing operations, the Postal Service began developing an internal re-engineering effort to transform BMCs into NDCs.

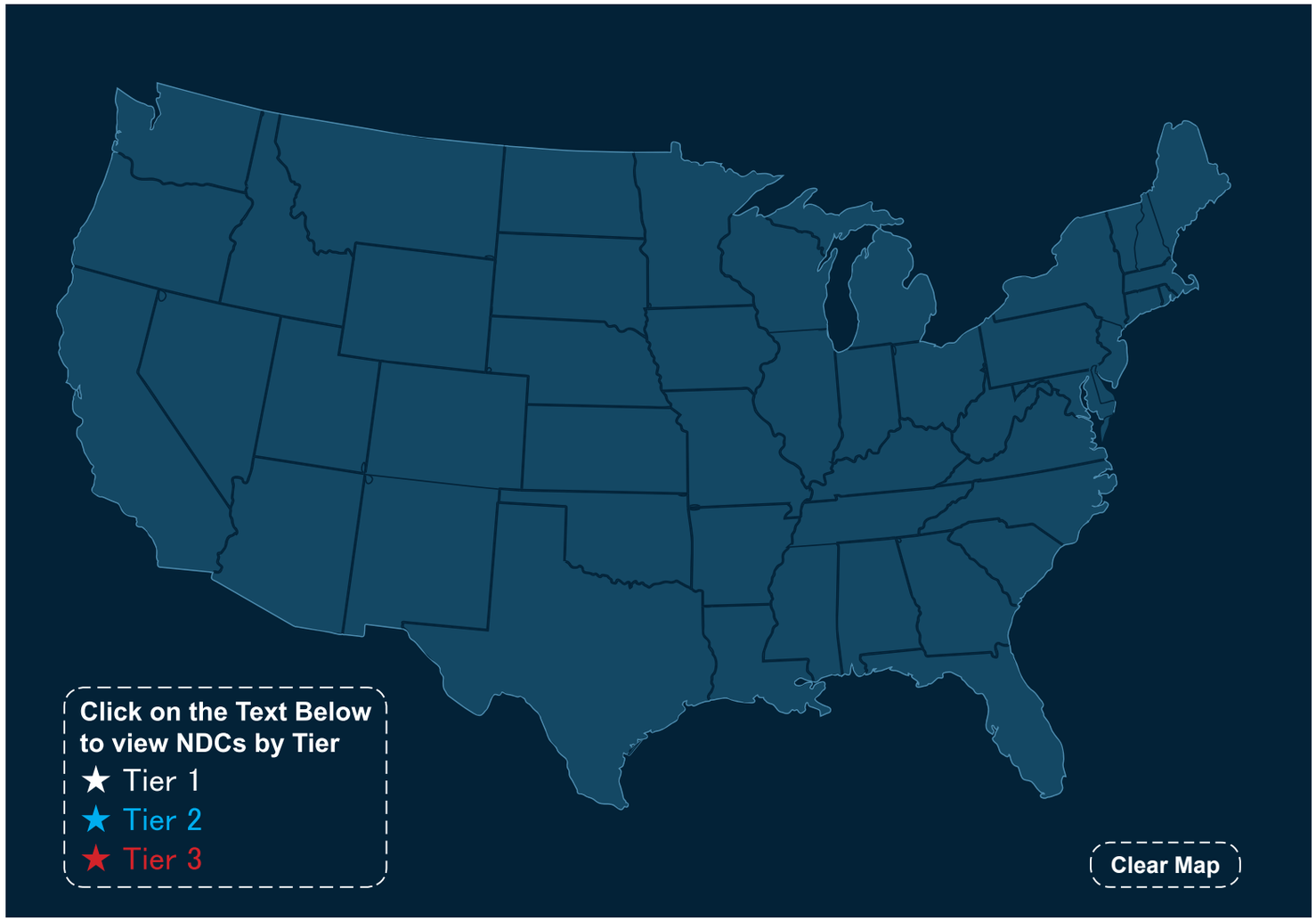
In an effort to reduce costs and excess capacity, management reorganized the 21 facilities into NDCs with a three-tiered structure. NDCs would consolidate the processing and dispatching of mail to achieve economies of scale and greater operational efficiency and reduce workhours and transportation costs. The Postal Service saved over $111 million in transportation and processing costs from the realignment. According to the NDC realignment plans, Tier 1 facilities send and receive mail to or from their Tier 2 NDCs.

In May 2009, the Postal Service activated Phase 1 of the NDC concept. It implemented the NDC network in phases, and accelerated phases II through IV before completing, sufficiently analyzing, and properly evaluating Phase I. The agency also instituted manual sorting operations in and adjacent to dock operations at P&DCs and P&DFs. The manual operations are responsible for separating and consolidating mail for transport to Tier 2 NDCs.

Implementation of Phase 1 in Chicago began in March 2010. The Chicago NDC, a Tier 1 facility, uses two PSMs to sort and distribute parcels. The PSMs are not equipped with SSIUs to automate the induction of barcoded parcels onto parcel sorting machines and into a single, optimally spaced line of separated parcels. The facility also has an YMS that improves yard throughput, resource use, and on-time deliveries by using yard resources better and helping to ensure efficient trailer movement. The Chicago NDC also has the PIVMS, which helps supervise mail movement at the facility. It locates the equipment and measures the amount of time the equipment is used, among other things.

In addition, management added transportation from Tier 1 service areas to Tier 2 NDCs to accommodate transportation of manually sorted Tier 1 mail. The new layer of transportation from the Chicago NDC service area to the Des Moines and Pittsburgh NDCs for originating mail was planned to be efficient only on inbound trips to Des Moines or Pittsburgh. See the map in Figure 10 showing all 21 NDCs by tier.

Figure 10. Location of NDCs Nationwide by Tier



Source: Postal Blue Pages – Network Operations.

Objective, Scope, and Methodology

Our objective was to evaluate the efficiency of Chicago NDC mail processing and transportation operations. This report focuses on NDC processing and transportation at the Chicago NDC and related processing and transportation at the Des Moines and Pittsburgh NDCs and their feeder processing facilities.

We performed this audit by comparing NDC productivity and evaluating the realignment of the transportation network. We identified the Chicago NDC as having the potential for savings through improved efficiency of productivity and transportation. The goal is to process and transport mail using the fewest resources while still meeting service timeframes.

To assess efficiency, we observed mail processing and transportation operations, analyzed mail volume and workhours, reviewed HCR transportation trailer use, and analyzed machine use. We conducted site visits to evaluate transportation use and processing at the Chicago NDC. We also reviewed relevant Postal Service policies and procedures, interviewed managers and employees, observed and photographed operations, and assessed mail container contents.

We interviewed Postal Service officials and benchmarked the Chicago NDC's achievement of target productivities against those of comparable NDCs. We focused our review on operations and systems at the Chicago NDC that similar NDCs used. The operations and systems we observed and analyzed included the Chicago NDC's PSMs, SSMs, PIVMS, and YMS. We identified potential workhour and cost savings for these operations and systems. In addition, we identified three round trips for consolidation and removal.

We relied on Postal Service computer-processed data, including the Management Operating Data System, EDW, and the Web End-of-Run System to analyze mail volume and workhours. We also relied on HCR information from the Transportation Contract Support System and trailer use data from the Transportation Information Management and Evaluation System. We determined the data were sufficiently reliable for the purposes of this report.

We conducted this performance audit from July 2014 through January 2015, 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 December 11, 2014, and included their comments where appropriate.

Prior Audit Coverage

Report Title	Report Number	Final Report Date	Monetary Impact (In millions)
Efficiency Review of the Cincinnati, OH, Network Distribution Center – Processing and Transportation	NO-AR-14-011	9/11/2014	$5,006,417
Report Results: This report determined that opportunities exist to improve the efficiency of some operations and transportation at the Cincinnati NDC. Management disagreed with our recommendation to improve the efficiency of distribution operations; partially agreed with our recommendation to improve efficiency of allied and indirect operations; and disagreed with our recommendation to remove one HCR round trip between Cincinnati and Des Moines. They agreed with our recommendations concerning the proper sorting, labeling, consolidation, and restraining of MTE equipment prior to the transport of mail and reinforcing safety procedures that require the restraint of MTE equipment rolling stock containers in trailers.			
Efficiency Review of the Atlanta Network Distribution Center – Processing and Transportation	NO-AR-13-005	8/16/2013	$15,999,708
Report Results: This report determined that Atlanta NDC operations and associated transportation to and from the Memphis NDC could be more efficient. Management generally agreed with our recommendation to improve the efficiency of the Atlanta NDC's mail processing operations by attaining the above average median productivity level of 119 pieces per workhour; removing or modifying existing HCR transportation associated with the Atlanta and Memphis NDCs; reinforcing NDC guidelines to properly sort, label, and consolidate mail prior to transport; and reinforcing safety procedures requiring the restraint of mail transport equipment in trailers.			
Efficiency Review of the Los Angeles Network Distribution Center	NO-AR-12-007	8/3/2012	$14,001,557
Report Results: This report determined that opportunities exist at the Los Angeles NDC to improve efficiency by reducing workhours and taking advantage of existing automation. Management agreed with the recommendations to improve operational efficiency by reducing workhours by 200,019 and disagreed with the associated workhour savings. They also agreed to provide more training, including employee oversight training, and improve the maintenance program and sorting operations.			
Postal Service INITIATIVE: Consolidation of Mail for Transportation Between Network Distribution Centers	NL-AR-12-006	5/29/2012	$15,365,532
Report Results: This report determined that the loading and unloading method used before the mail consolidation pilot was efficient based on workhours; however, it resulted in additional transportation costs. Management generally agreed with our recommendations, but not our monetary impact, stating they expanded the number of consolidation lanes in February 2012, would continue to pursue additional opportunities and a 2.5:1 utilization ratio, and would evaluate the consolidation of mail bound for Puerto Rico. Management also stated they would conduct locally managed quarterly meetings with contractors.			

Appendix B: Detailed Analyses

Transportation

Based on our analyses of existing HCR transportation, we concluded the Postal Service could eliminate two round trips between the Chicago and Pittsburgh NDCs and one round trip between the Chicago and Des Moines NDCs. Table 2 summarizes the affected HCRs and related transportation cost impacts. The net savings identified are about $1.5 million annually.

Table 1: HCR Transportation Savings

Work Sheet	HCR	SEG	Pre Mileage	Post Mileage	Mileage Change	Pre Annual Rate	Post Annual Rate	Annual Rate Change	Monthly Cost	Cost for Three Months Excluded Sep, Oct, Nov.	Total Savings
HCR 1	150m1	a	4,596,851.3	3,947,758.4	(649,092.9)	$ 9,827,452.84	$ 8,647,930.15	($ 1,179,522.68)	($ 98,293.56)	($ 294,880.67)	($ 884,642.01)
HCR 2	50316	a	1,367,710.9	1,149,188.0	(218,522.9)	$ -	$ 2,333,583.49	($ 366,719.49)			($ 366,719.49)
TOTAL			**5,964,562.2**	**5,096,946.4**	**(867,615.8)**	**$ 9,827,452.84**	**$10,981,513.65**	**($ 1,546,242.17)**			**$ 1,251,361.50**

Appendix C: Management's Comments

UNITED STATES POSTAL SERVICE

January 9, 2015

LORI LAU DILLARD
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Efficiency Review of Chicago, IL. Network Distribution Center – Operations and Transportation Report Number NO-AR-15-DRAFT

We agree with the conclusions and recommendations made for improvement.

Recommendation 1:

Increase efficiency by eliminating 119,572 workhours to produce an annual cost avoidance of over $4.3 million by:

- Properly adjusting staffing and rescheduling within the parcel sorter machine and sack sorter machine operation.
- Installing a singulate, scan and induction unit on the parcel sorter machines.
- Repairing the Power Industrial Vehicle Management System.
- Assigning specific dock doors through the Yard Management System to reduce unnecessary movement of mail for incoming and outgoing trips.

Management Response/Action Plan:

Management agrees with the all recommendations listed. The staffing realignment for the PSM has been completed. Residual positions are pending on eReassign. We have begun to realign our SSM operation and have met with local Union Officials and advised them of our plans to reduce hours and improve efficiencies. SSIU installation on PSM 3 is currently in the approval stage. The repair of and training on the PIVMS has begun. We have requested assistance from the Manager Network Distribution Center Operations and there are plans to send someone to the facility. We have requested that the Trainer for YMS located in Pittsburg come to the facility and provide necessary training on the proper use of the system to Management staff.

Target Implementation Date: PSM Staffing realignment completed July 2014

Responsible Official: Manager, In-Plant-Support, Chicago NDC

Target Implementation Date: SSM staffing realignment March 2015.

Responsible Official: Manager, In-Plant-Support, Chicago NDC

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Target Implementation Date: SSIU installation June 2015
Responsible Officials: Manager, Network Operations Engineering, HQ

Target Implementation Date: April 2015
Responsible Manager: Manager, Transportation, Chicago NDC

Recommendation #2

Management Response/Action Plan:

Management agrees with this recommendation. Training has begun on the proper labeling and consolidation of mail to maximize utilization.

Target Implementation Date: February 2015
Responsible Officials: Managers Distribution Operations, Chicago NDC

Recommendation #3

Management Response/Action Plan:

Management agrees with this recommendation. The 5 direct trips to Des Moines 50Z are proposed for elimination and the mail will be dispatched via the CDF network. The Pittsburgh trips will be reviewed for possible elimination.

Target Implementation Date: March 2015
Responsible Official: Manager, Transportation, Chicago NDC

Recommendation #4

Management Response/Action Plan:

Management agrees with this recommendation. Proper use of restraint training and service talks has been ongoing since June 2014. Corrective action has been taken on those found to be non-compliant. We will continue to train and reinforce proper procedures. This item will also be place on Safety observation agenda with Union.

Target Implementation Date: Continuous Quarterly Service/Safety Talks
Responsible Officials: Managers, Distribution Operations, Chicago NDC

We truly appreciate the opportunity to get objective opinions of our operation. Although there during our discussions there were some differences of opinion, It is always beneficial to get differing points of view and input on ways to improve the operation. The Team was very professional and communicative.

We were able to meet with several Team members regularly throughout the days and they did not hesitate to ask and answer questions or bring findings to our attention that they felt needed immediate attention. We had begun implementing many changes prior to the review and it was reaffirming to hear that we were on the right track.

Donald Williams
Manager Chicago NDC

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