

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

MAIL PROCESSING NETWORK
RATIONALIZATION SERVICE CHANGES, 2012

DOCKET No. N2012-1

**DIRECT TESTIMONY OF
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ON BEHALF OF THE
UNITED STATES POSTAL SERVICE
(USPS-T-6)**

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1 I received a Bachelors of Science degree in Business Administration from
2 the University of Maryland, University College. I also received a Masters of
3 Science degree in International Logistics from Georgia Institute of Technology
4 with a concentration in global supply chain strategy and execution.

1 **ASSOCIATED LIBRARY REFERENCE**

2 I sponsor the following Library Reference, which provides foundational
3 material associated with this testimony: Transportation Network Analysis
4 Spreadsheets Related to USPS-T-6 (LR-N2012-1/11).

1 **I. BACKGROUND**

2 For decades, the Postal Service expanded its mail processing
3 infrastructure to accommodate significant mail volume growth. As a result, the
4 transportation network has been augmented to support the movement of
5 increased mail volume among processing facilities, and between processing
6 facilities and delivery offices. The Postal Service must now adapt its processing
7 and transportation networks to comport with current economic realities. The
8 changes proposed in this docket will provide the Postal Service with the flexibility
9 to rationalize its transportation network, improve efficiency, and reduce
10 transportation costs.

11 **A. The Structure of the Transportation Network**

12 The transportation network must provide for safe, efficient, and timely
13 movement of mail among postal processing facilities and between processing
14 facilities and delivery offices. The size of the transportation network is dependent
15 upon the size of the processing and distribution network and the need to move
16 mail to and from Processing and Distribution Centers, International Service
17 Centers, Logistics and Distribution Centers, Network Distribution Centers,
18 Distribution Delivery Units, annexes, airports, Post Offices, stations, and
19 branches that must all be connected by the transportation network. To illustrate,
20 when mail volumes were increasing between 1993 and 2006, the Postal Service
21 added Processing and Distribution facilities to the processing network thereby
22 accommodating both higher volumes and the space necessary for additional mail

1 processing equipment. As a result, the Postal Service also had to augment the
2 transportation network to move mail between those facilities.

3 The transportation network must be designed to ensure that mail volumes
4 can be transported between postal facilities within certain transportation windows
5 so that the mail can be processed and delivered in accordance with the
6 applicable processing windows and service standards. A “transportation window”
7 is the time period between the “clearance time” set by the origin processing plant
8 and the “critical entry time” established by the destination processing plant.¹ The
9 clearance and critical entry times set by the processing facilities and the distance
10 between those postal facilities inform Postal Service decisions regarding the
11 transportation mode(s) necessary to moving respective classes of mail between
12 those facilities.

13 **B. Modes of Transportation**

14 The primary transportation modes used by the Postal Service consist of
15 surface and air. First-Class Mail, Priority Mail, and Express Mail intended for
16 carriage and delivery within the continental United States and between the
17 contiguous United States and non-contiguous parts of the domestic service area
18 are transported via air when necessary to achieve the applicable service
19 standards. In contrast, Periodicals Mail, Standard Mail, and Package Services
20 are transported exclusively by surface within the contiguous United States
21 because (1) the applicable service standards generally provide more time for the
22 delivery of these mail classes, and (2) surface transportation modes are less

¹ See *Direct Testimony of Frank Neri on Behalf of the United States Postal Service* (USPS-T-4) at § III.D.

1 expensive than air transportation modes. Additionally, Periodicals Mail, Package
2 Services, and Standard Mail are transported by boat to reach non-contiguous
3 states and territories.

4 The service changes under review in this docket will have direct
5 implications for the surface transportation network and an indirect impact on the
6 air transportation network (as described in section IV below). Surface
7 transportation is provided by (1) the Postal Vehicle Service (PVS), which is
8 comprised of drivers who are USPS employees, or (2) Highway Contract Route
9 (HCR) service providers. These two options are described in greater detail
10 below.

11 1. Postal Vehicle Service

12 Network transportation using Postal Service vehicles and employees is
13 called Postal Vehicle Service (PVS). The Postal Service employees who drive
14 the vehicles are called Vehicle Service Drivers (VSD). As a result, this part of the
15 transportation network is sometimes called “PVS” transportation and sometimes
16 called “VSD” transportation.

17 The functional responsibility of PVS is to transport large containers of mail
18 between mail processing facilities, and to and from airports, Post Offices,
19 stations, and branches. PVS drivers also provide services such as plant load
20 pick-up. In general, PVS does not provide service to mail processing plants and
21 retail locations that are designated for HCR service. PVS operations encompass
22 drivers, vehicles, and administrative support such as supervisors and clerks.

1 2. Highway Contract Route Service

2 The Postal Service contracts with more than 12,000 suppliers for highway
3 transportation services. HCR service transports all mail classes throughout the
4 postal network and is the primary provider for long-haul surface transportation.
5 On average, HCR transportation is less expensive than PVS. HCR service is
6 contracted where PVS is absent.

7 There are separate HCR transportation categories established to transport
8 certain mail classes.

- 9 • Inter-Area – Routes that operate between areas and typically used for
10 transport of mail classes with two- to three-day service standards.
- 11 • Inter-Cluster – Routes that operate between two clusters within the same
12 area, particularly for mail classes with overnight and two-day standards.
- 13 • Inter-P&DC – Routes that operate between two different mail processing
14 facilities within the same area and cluster, particularly for mail classes with
15 overnight and two-day standards.
- 16 • Intra-P&DC – Routes that operate between plants and associated Post
17 Offices for mail classes committed for overnight delivery.

18 **C. Short-Haul and Long-Haul Transportation Networks**

19 The surface network is segmented into two broad categories: the short-
20 haul network and long-haul network. “Short-haul network” generally refers to the
21 transportation network that connects postal facilities that are less than 300 miles
22 apart. The purpose of the short-haul network is to ensure timely transportation of

1 mail subject to overnight and two-day service standards. The transportation of
2 mail over short-haul networks may be provided by PVS drivers or HCR providers.

3 The “long-haul network” refers to transportation by HCR providers that
4 connects postal facilities more than 300 miles apart. Long-haul network
5 transportation may entail “direct” trips between origin and destination facilities or
6 “indirect” trips whereby a truck stops at a consolidation truck terminal or hub
7 before continuing on to its destination. At a terminal or hub, a truck is filled with
8 additional mail intended for transport to the destination facility. Generally, a truck
9 run that is routinely less than sixty (60) percent full is directed to a consolidation
10 facility so that the Postal Service can take full advantage of the truck’s carrying
11 capacity. However, in some circumstances that is not possible because critical
12 entry times or service standards dictate a direct trip.

13 **D. Area Mail Processing Review Process**

14 As discussed in the testimonies of Postal Service witnesses David
15 Williams (USPS-T-1) and Frank Neri (USPS-T-4), the Postal Service is
16 conducting Area Mail Processing (AMP) consolidation reviews on selected mail
17 processing facilities. As those witnesses explain, the service standard changes
18 proposed in this docket and its underlying rule changes open the door to many
19 new AMP studies and consequent consolidations. Each will require its own
20 evaluation of available transportation, how such transportation should be
21 adjusted, and any consequent increases or decreases in transportation costs.

1 **II. CHANGES WILL PROMOTE EFFICIENCY IN THE TRANSPORTATION**
2 **NETWORK**

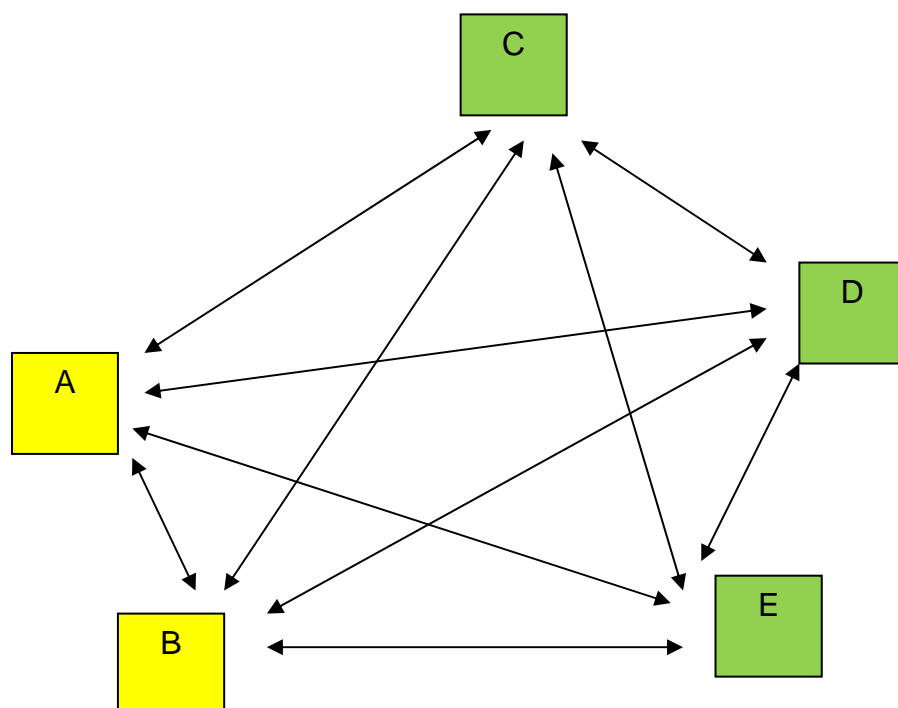
3 Under the proposed service standards and the rationalized mail
4 processing network, the Postal Service will need fewer processing facilities to
5 ensure the timely processing and delivery of current mail volumes. A reduction in
6 mail processing facilities will permit the Postal Service to rationalize the
7 transportation network in the following ways.

8 **A. Plant-to-Plant Network Rationalization**

9 The transportation network must provide for the movement of mail
10 between origin and destination processing plants. An origin processing plant
11 receives mail from its local service area, defined by the 3-digit ZIP Codes it
12 serves. A destination processing plant is one that receives mail from other
13 processing plants for delivery to a range of 3-digit ZIP Codes. Most plants
14 operate in both capacities.

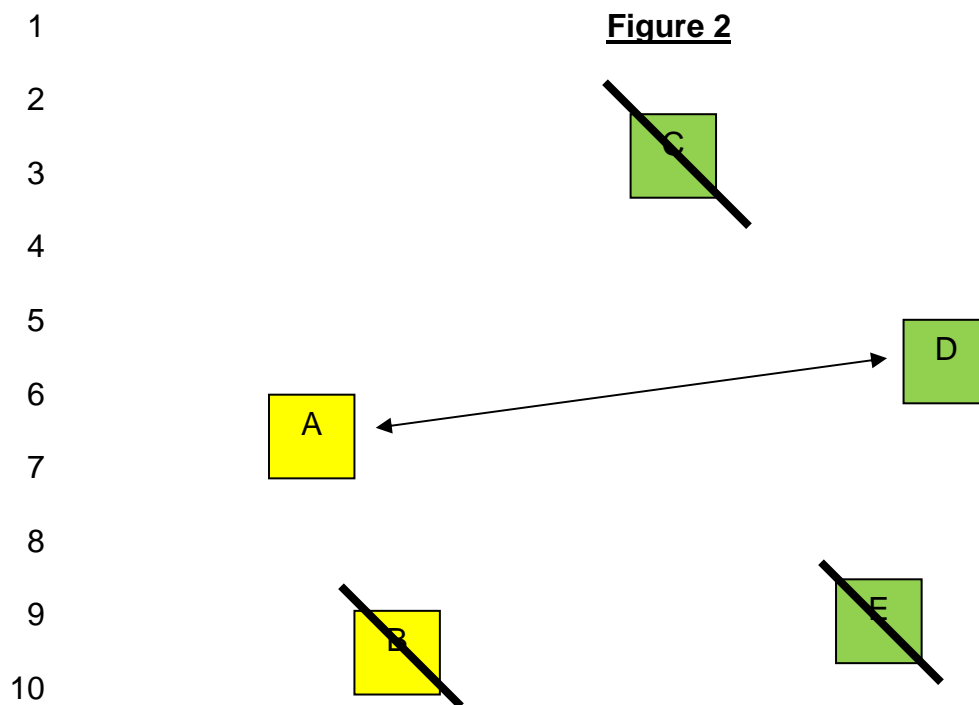
15 A reduction in the number of processing facilities in the postal network will
16 significantly reduce the number of individual “links” in the transportation network.
17 To understand how the service and network changes being reviewed in this
18 docket will enable the Postal Service to rationalize the plant-to-plant
19 transportation network, consider the following hypothetical processing network
20 which contains five plants that are located in two service areas. Plants A and B
21 are in the first area, as indicated by the use of the color yellow. Plants C, D, and
22 E are in the second area, as indicated by the use of the color green. A diagram
23 of this hypothetical processing network is produced in Figure 1 below:

24

Figure 1

This hypothetical network contains six inter-area links (*i.e.*, links between individual plants in different areas) and four inter-P&DC links (*i.e.*, links between plants in the same area), yielding a total of ten plant-to-plant links. The Postal Service must provide for the transportation of mail over those links. Such transportation is provided primarily by HCR service.

If the Postal Service decides to consolidate plants B, C and E, the Postal Service will be able to reduce the number of plant-to-plant links in the transportation network so that there is only one plant-to-plant link between the remaining two network nodes. See Figure 2 below.



In the rationalized hypothetical network above, the number of links between plants can be reduced from ten links to one link that connects the two service areas. Assuming that network mail volume that is transported between the yellow and green service areas remains constant, I anticipate that the Postal Service would need to increase the number of “trips” between remaining plants A and D to accommodate that increase. However, I anticipate that the elimination of separate transportation links between Plants B, C and E would lead to a net decrease in transportation activity within and between the two service areas despite any increase in trips between the remaining plants. This tension illustrates that the opportunity to optimize transportation in the new network will involve both reductions in trips and some increase in volume, hence capacity utilization, on remaining trips.

1 Additionally, the proposed service standards and the corresponding
2 expansion of current mail processing windows will provide the Postal Service
3 with more time to accumulate mail at an origin processing plant for eventual
4 transport to a destination processing plant. As a result, the Postal Service will be
5 able to increase the capacity utilization of trucks that operate between plants.
6 Such increases will have a suppressive effect on the number of trips between the
7 remaining plants because the Postal Service will be able to schedule fewer trips
8 between the remaining plants *than would otherwise be required* under a more
9 restrictive window to ensure that mail reaches the destination plant by the
10 applicable critical entry time.

11 To assess the impact the proposed changes would have on the current
12 transportation network, I analyzed a subset of routes in the network to determine
13 which trips might no longer be required in a rationalized mail processing
14 environment. See library reference USPS-LR-N2012-1/11. This analysis
15 included review of the purpose of each trip, how that mail volume would flow in a
16 rationalized mail processing network, and how volume could be absorbed on
17 trips with low utilization. Additionally, I identified trips in the network that were
18 only there to support our current service standards and determined which of
19 those could be eliminated in the rationalized network. Based on this analysis, I
20 estimate that plant-to-plant transportation could be reduced by approximately
21 24.71 percent in the rationalized network. *Id.* As a result, I expect the Postal
22 Service to realize plant-to-plant surface transportation cost savings when it
23 rationalizes the processing network.

1 have a larger service area and will be connected to more Post Offices as shown
2 in Figure 4 below.

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Figure 4

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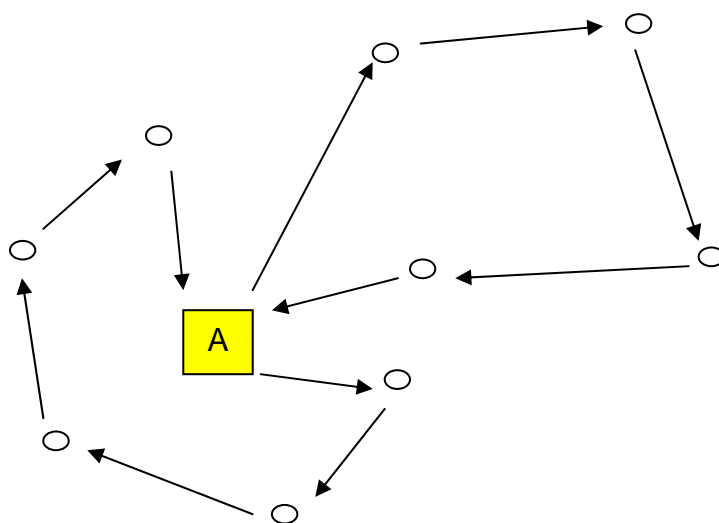
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By reducing the number of plant-to-Post Office links within a defined geographic area and collapsing two service areas into one, the Postal Service will be able to reduce the number of operating miles within that area. Additionally, an expanded mail processing window, combined with a reduction in the number of plants, would enable the Postal Service to decrease the number of surface transportation trips required to service a particular area. Currently, incoming mail processing begins at approximately 12:00 midnight and runs until approximately 4:00 a.m. After the mail has been processed, the mail is available for transport to delivery units. Because these trips must be scheduled for early in

1 the morning to ensure that the mail can be delivered that day, there is no
2 collection mail available at those delivery units for transport back to the plant. As
3 a result, the Postal Service must schedule additional trips in the evening to bring
4 mail collected by that unit back to the plant for processing.

5 With an expanded mail processing window for Delivery Point Sequencing
6 (DPS) in the future network that runs from approximately 12:00 *noon* to
7 approximately 4:00 a.m., a significant amount of mail will be available for
8 transport to delivery units earlier in the day. Accordingly, the Postal Service will
9 be able to schedule trips between plants and Post Offices throughout the day
10 and into the evening when collection mail will be available for transport from the
11 Post Offices to the plants. This will create new opportunities for the Postal
12 Service to transport such mail to delivery units and transport collection mail to the
13 processing plant in combined trips, as opposed to separate trips, thereby
14 improving the efficiency of the plant-to-Post Office network.

15 To assess the impact the proposed network changes would have on the
16 plant-to-Post Office network, I analyzed a subset of routes in the network to
17 identify operating miles that could be eliminated in the rationalized mail
18 processing environment. See library reference USPS-LR-N2012-1/11. In so
19 doing, I analyzed whether certain trips with low utilization on existing routes could
20 be eliminated, thereby reducing operating miles, without compromising the Postal
21 Service's ability to move existing mail volumes. Based on this analysis, I
22 estimate that the number of operating miles in the current network could be
23 reduced by approximately 13.68 percent in the rationalized network. *Id.* The

1 facility-specific AMP process will ultimately determine the reductions that will
2 occur as a result of the respective plant consolidations expected to be
3 implemented. Although such savings would be mitigated by any increase in
4 transportation cost due to the fact that remaining plants must be connected to
5 more Post Offices in the realigned network, I expect the Postal Service to realize
6 plant-to-Post Office surface transportation cost savings when it rationalizes the
7 processing network.

8 The Postal Service could also reduce costs through the elimination of PVS
9 at locations deactivated as the result of rationalization. I have identified forty (40)
10 PVS sites that would close when their associated P&DC is closed. The list of
11 sites appears in library reference USPS-LR-N2012-1/22, which is sponsored by
12 witness Bradley. The Postal Service has also determined that this transportation
13 responsibility will be transferred to HCR rather than PVS transportation. To the
14 extent that HCRs can provide the needed transportation at a lower cost than PVS
15 transportation, the Postal Service will save additional costs.²

² These savings are analyzed in the *Direct Testimony of Michael D. Bradley on Behalf of the United States Postal Service* (USPS-T-10).

1 **III. AIR TRANSPORTATION**

2 The Postal Service uses air transportation (*i.e.*, passenger and cargo
3 planes) to transport certain First-Class Mail, Priority Mail, and Express Mail
4 volumes between processing plants to insure that such mail can be processed
5 and delivered in accordance with applicable service standards. To select the
6 optimal service provider, the Postal Service considers factors such as the service
7 standards for the mail being transported, security requirements, contract terms
8 (*e.g.*, weight and volume restrictions), price, and capacity. The Postal Service
9 also contracts with third-party terminal handling suppliers which act as
10 intermediaries between the Postal Service and the air transportation provider.
11 These terminal handling suppliers prepare mail for air transport and receive mail
12 from the air transportation provider for transfer to the Postal Service. The
13 consolidation of mail processing facilities and the corresponding realignment of
14 the transportation network will result in the diversion of First-Class Mail volumes
15 with a three-day service standard from surface transportation to air
16 transportation.

17 In the current mail processing environment, the Postal Service has until
18 6:00 p.m. on the day prior to delivery to ensure that First-Class Mail with a three-
19 day service standard arrives at the destination mail processing facility. In the
20 rationalized mail processing environment, First-Class Mail with a three-day
21 service standard must arrive at the destination processing facility by 8:00 a.m. on
22 the day prior to delivery. Because the surface transportation window for this
23 particular mail class will be decreased by several hours, the Postal Service will

1 need to divert a portion of this mail volume from surface to air transportation to
2 ensure timely delivery.

3 I have estimated that the volume of mail that will be diverted from surface
4 to air transportation will increase by approximately 124 million pounds annually
5 over current mail volumes transported by air. See library reference USPS-LR-
6 N2012-1/11. I estimated this increase by assessing the volume of First-Class
7 Mail on current surface transportation lanes that would require air transportation
8 to meet the 8:00 a.m. critical entry time on the day prior to delivery. The increase
9 in cost for such diversion will depend on price charged by the carrier to transport
10 the mail. When choosing an air transportation provider, the Postal Service will
11 consider the capacity and price offered by the provider and the provider's on-time
12 performance. Additionally, the diversion of such mail from surface to air
13 transportation will increase the handling costs of such mail. However, the Postal
14 Service anticipates a net savings in transportation costs from the realignment of
15 the transportation network overall.³

³ These net savings are analyzed in the *Direct Testimony of Michael D. Bradley on Behalf of the United States Postal Service* (USPS-T-10).

1 **IV. CONCLUSION**

2 The service standard changes proposed in this docket, combined with the
3 rationalization of the processing network as described by USPS witness Neri
4 (USPS-T-4), will enable the Postal Service to rationalize the transportation
5 network in a manner that will increase efficiency and reduce transportation costs.