

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

FIRST-CLASS MAIL AND PERIODICALS
SERVICE STANDARD CHANGES, 2021

Docket No. N2021-1

**RESPONSES OF THE UNITED STATES POSTAL SERVICE WITNESS STEPHEN B.
HAGENSTEIN TO MAILERS HUB INTERROGATORIES AND REQUEST FOR
PRODUCTION OF DOCUMENTS MH/USPS-T3-1 THROUGH 6**

The United States Postal Service hereby provides responses of witness Stephen B. Hagenstein to the above-listed interrogatories. Each question is stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

Anthony Alverno
Chief Counsel, Global Business & Service
Development

Ian Brown
Peter J. McNulty
B.J. Meadows, III

475 L'Enfant Plaza, S.W.
Washington, D.C. 20260-1135
(202) 268-6706
ian.d.brown@usps.gov
June 1, 2021

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

MH/USPS-T3-1. Please refer to your testimony on page 3, lines 19 through 23, and on page 4, lines 1 through 9.

- a. Please explain the criteria used by the Postal Service to determine whether transportation service will be provided by its own drivers (PVS) or by contract drivers (HCR).
- b. Please explain why, if “On average, HCR transportation is less expensive than PVS,” HCR would not be the preferred choice for transportation service.
- c. Please explain the phrase “PVS is absent,” specifically to clarify whether such absence is abnormal.
- d. Please explain if a situation in which “PVS is absent” is the result of a decision governed by consistently-applied policies, and the degree to which local managers have latitude to make their own determination.

RESPONSE:

- a. USPS gives due consideration to public interest, cost, efficiency, availability of equipment, and qualification of employees when evaluating the need to subcontract. The following factors are used in any cost comparisons regarding the type of transportation mode to be selected (PVS vs HCR):

1. Labor cost
2. Workhours
3. Vehicle cost

Additional provisions used when evaluating the type of service to be provided for routes (PVS vs HCR) are filed under seal in USPS-LR-N2021-1-NP11.

- b. Including the information provided above, in part a, the only two reasons PVS would be used over HCR in cases where HCR transportation is less expensive are:

1. Supply Management did not acquire a successful contract bidder for the HCR work.
2. APWU was granted an arbitration award between USPS and APWU which requires USPS to give HCR work to the PVS craft.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

- c. The intent of this specific testimony was meant to convey that HCR is used in places where PVS is not operating a route.
- d. There are rules that govern when PVS will be considered and the rules are applied consistently. Local managers do not have the latitude to determine whether a route will be operated by PVS or HCR.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

MH/USPS-T3-2. Please refer to your testimony on page 5, lines 1 and 2 and 21 through 23.

- a. Please explain how it is determined that a truck is “routinely less than 60 percent full.”
- b. Please confirm that such a level of utilization would be in accordance with planned utilization and, if so, how the 60 percent level was chosen. If that cannot be confirmed, please explain the load that is expected “routinely.”
- c. Please explain the circumstances under which contracted transportation becomes “over- and under-utilized.”
- d. Please explain what steps are taken to monitor for, and to correct for over- or under-utilization of vehicle capacity; to verify that such steps were effective; and to take further actions as necessary to prevent or minimize over- or under-utilization of vehicle capacity.
- e. Please explain the term “flexibility” and why it is lacking “across the transportation network.”
- f. Please explain what steps are taken to monitor for, and to correct inflexibility in HCR contracts; to verify that such steps were effective; and to take further actions as necessary to provide the Postal Service with greater “flexibility.”

RESPONSE:

- a. Surface Visibility (SV) data shows historic load percentages based on container load scans associated with routes and trips. Network Analysts review load percentages when planning transportation.
- b. The question is not clear. The model does not constrain load utilization. 100 percent truck load utilization in the model is based on the equivalent load of 42 All-Purpose Containers (APCs), or 1,575 cubic feet. The 60 percent reference in the background section is a generalization stating when trips are 60 percent or less, the surface network planners will attempt to route the volume via an STC versus planning direct transportation.
- c. Current delivery standards prevent certain origin and destination pairs from using hubs or multi-stops based on transit time constraints. In these cases, direct trips are the only option which can be underutilized, depending on the volume between the origin and destination pair. “Overutilized” trip situations can occur

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

when regularly scheduled transportation does not have capacity to handle the mail volume and extra trips may need to be scheduled.

- d. The Postal Service has many data visualization tools and dashboards that monitor and provide trip status (late/on-time/extra service/cancellations/omitted) as well as utilization metrics. Using these tools, the Postal Service regularly evaluates lanes to right-size the network.
- e. Many of the current service standards across the network do not offer enough time to adequately build multi-stops or transportation via hubs. This forces the implementation of more point-to-point direct trips that are more likely to be underutilized.
- f. The 'inflexibility' in routing between lanes is not constrained by the HCR contracts, it is a constraint of the service standards forcing direct, under-utilized transportation between pairs to meet the service standards. Adding time to the transportation window adds routing flexibility and would allow additional use of multi-stop and hub transfers in the network.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

MH/USPS-T3-3. Please refer to your testimony on page 10, line 5.

- a. Please explain why the assumption was made that “the average APC would be 75 percent full.”
- b. Please explain why a higher figure was not selected in order to support the objective of taking “full advantage of the truck’s carrying capacity.”
- c. Please explain if other containers were included in the model, such as “BMC over-the-road” containers, pallet, pallet boxes, etc., and what utilization assumptions were applied to each.

RESPONSE:

- a. The assumption was formulated after receiving input from focus groups and based on the fact that multiple operations in processing centers create containers for the same destination. The container generated in each operation will not be full, and it is assumed that some consolidation can take place prior to dispatch. Operations are instructed to dispatch containers 75 percent full for dispatch on early trips, prior to the Dispatch of Value. Filling APCs to the theoretical maximum capacity is possible, however not probable. This assumption, in turn, produced a more conservative number of containers loaded onto trips rather than fewer containers at 100% full which may not be operationally feasible.
- b. Please see the response above in subpart (a).
- c. The estimated trailer space requirements in the model were based on piece conversions to APCs as a standardized unit in the model. The cubic foot space requirements are based on volume and rounded-up to the space equivalent of an APC.

RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN TO INTERROGATORIES OF MAILERS HUB

MH/USPS-T3-4. Please refer to your testimony on pages 13 and 14, section C.

- a. Please explain the process and criteria used in developing the mileage and time in the “proposed service standard assignment rules.”
- b. Please explain the reasons why incrementally greater mileage, or more time, were not selected.
- c. Regarding the statement:
“The intent of adding incrementally more slack time to the transit windows as distances increased was to encourage pairing of shipments at the origin locations, allow volume transfers via STCs, add buffer time to absorb transportation delays, and still enter letter and flat volume up to the destination CET of 08:00 the day prior to the de-livery standard. Allowing such flexibility in the transit time between OD Pairs allows the model to test additional routings for optimization and build efficient routings.”

Please explain the process and criteria used to determine that the model should include “more slack time” in its calculations to “encourage pairing of shipments at the origin locations, allow volume transfers via STC, [and] add buffer time to absorb transportation delays.”

- d. Please explain why the model was not run to optimize direct (non-stop) transportation between origin/destination pairs or to maximize the non-stop distances between pairs that could be allowed while still meeting service standards.

RESPONSE:

- a. Several scenarios were evaluated and reviewed with Postal Service leadership during an iterative process, comparing expected operational benefits with potential savings. A 3-hour reach for 2-day was selected to maintain 2-day network pairs while providing an increased opportunity to leverage transfer hubs to minimize the need for direct transportation. A 20-hour reach for 3-day was selected based on departing origin at 06:00 day-1, allowing 6 hours for transfer via an STC or multi-stop routing. A 41-hour reach for 4-day was selected based on allowing 6 hours for transfer at an STC plus an additional 3-hour buffer.
- b. Greater transit windows were selected, incrementally, for the longer service standards to allow for transfers and transit delays. Longer distances and greater transit times were tested and eliminated based on concerns for operational capability.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

- c. Several iterations were modeled and reviewed with Postal leadership to assess different available transit windows. The iterative review process of was used to arrive at the proposed business rules balancing perceived operational capability with potential savings.
- d. The purpose of the optimization model is to determine the most cost-effective transportation. Direct trips are only the most cost-effective solution when fully utilized. Combining volumes to maximize 53' trailer loads reduces trips, reduces mileage, and reduces yard and dock activity.

RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN TO INTERROGATORIES OF MAILERS HUB

MH/USPS-T-5. Please refer to your testimony on page 15, lines 10 through 13. Please explain the assumptions regarding vehicle size and capacity.

- a. Please explain whether smaller trucks (“5-tons”), or different size trailers (40-, 45-, 48-, or 50-foot) were used as variables or, if not, why not.
- b. Please explain whether the model was used or allowed to determine whether smaller trucks could be used to provide direct service between origin/destination pairs instead of assigning the related volume to a larger vehicle on an indirect routing.
- c. In order to provide “flexibility,” please explain whether the model allowed for the use of trucks of different sizes on a routing between an origin/destination pair, based on fluctuations in volume. If not, please explain why such “flexibility” would not be desirable.
- d. Please explain why the “Maximum volume per 53-foot trailers was modeled as 1,575 cubic feet” if, according to a *Guide to Truck Trailers* (http://www.iccb.org/iccb/wp-content/pdfs/adulted/tdl_bridge_curriculum/tdl_context_math/tdl_math_resource_file/Truck_Trailer_Guide.pdf), the interior capacity of a 53-foot trailer is 3,489 cubic feet.
- e. Please explain why the model assumed utilization of only 45.1% of the capacity of a 53-foot trailer.
- f. Please confirm that the model assumed that all loads on all trucks would be in APCs, that no modeled loads were in other than APCs that were “75 percent full,” and that no modeled loads were bedloaded. If these cannot be confirmed, please explain the assumed loads.

RESPONSE:

- a. The model was built using 53- foot trailers. The model is not set up to allow for any other trailer size since the majority of current plant-to-plant network trips utilize 53-foot trailers. The purpose of the optimization model is to determine the most cost-effective transportation. Direct trips are only the most cost-effective solution when fully utilized. Combining volumes to maximize 53’ trailer loads reduces trips, reduces mileage, and reduces yard and dock activity. Where low volume, direct transportation is required, smaller, less costly equipment is considered, and would be considered under this proposal.
- b. The model was not allowed to assign smaller volumes to smaller vehicles. In many of these cases, the model would attempt to build a multi-stop or utilize a hub (STC) before it builds an inefficient direct routing. As stated, in subpart (a),

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

where direct transportation for low volume is required, smaller, less costly equipment would be considered.

- c. The model is not allowed to use different truck sizes other than 53-foot trailers. This was done in part because the majority of our current network transportation runs using 53-foot trailers. In addition, one of the goals is to reduce the number of trips, dock activity, and yard traffic in our processing and network facilities. Planning to incorporate variable trailer sizes and trucks in the network would introduce added complexity, costs, trips and traffic.
- d. The 3,489 figure represents total wall-to-wall maximum empty space in a truck. The 1,575 figure represents maximum usable floor space plus the height of commonly used containers used to transport volumes through the postal network.
- e. Please reference the response to subpart (d), above.
- f. Partially confirmed. All modeled trips are assumed to use APCs that were limited to 75% full. No loads were assumed to be bedloaded in the model.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

MH/USPS-T3-6. Please refer to your testimony on page 16, lines 12 through 15, and page 17, lines 1 through 15.

- a. Please explain the process and steps used to determine the allowance of an “additional 90 minutes for dispatch preparation and staging” and why it is “the USPS-accepted expectation of when volume would be ready for dispatch following the completion of mail processing.”
- b. Please explain whether other shorter time criteria were modeled and, if not, why not.
- c. Please explain the process and steps used to determine that “STCs are given a minimum of two hours to process volume and/or cross-dock containers.”
- d. Please explain whether other shorter time criteria were modeled and, if not, why not. Shorter times were not modeled at the STCs.

RESPONSE:

- a. The clearance time in the analysis was based on the outgoing primary machine operational end-times, pulled from webEOR (End of Run data system).

Subsequent operations are required after the primary outgoing machine operations are completed, such as outgoing secondary, and manual processing of non-machineable volumes and machine reject flows. Operating plans traditionally allow for 30 minutes to complete secondary operations, and 30 minutes for manual operations, and another 30 minutes to collect and transport volumes from those operations to the dispatch operations. It is critical for mail operations to maintain timely down-flows and coordination to achieve these target clearance times for subsequent operations.
- b. Prior modeling efforts used earlier mail availability times. After reviewing early modeling results with stakeholders, the methodology cited in the testimony was employed. Modeling earlier dispatch times would have resulted in greater mileage reductions but would put originating facilities at risk or not having the mail ready by the time of the planned transportation.

**RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS HAGENSTEIN
TO INTERROGATORIES OF MAILERS HUB**

- c. Nine of thirteen STCs are contracted operations. Per the contracts, they are given up to 2 hours to process working containers and cross-dock volumes for outbound dispatch. Observations were conducted to determine the contract requirements for the statement of work prior to solicitation. The observations reviewed the time to unload an inbound truck, move volume to processing work centers, process, and move to dock and load on outbound transportation.
- d. Similar to response in subpart (b), shorter times for STC transfers was not modeled. Shortening the length of time in the model without a process change or evidence to support the capability would increase the risk that the results are unachievable.