

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

EVOLUTIONARY NETWORK DEVELOPMENT
SERVICE CHANGES, 2006

Docket No. N2006-1

RESPONSE OF THE UNITED STATES POSTAL SERVICE TO QUESTION 7
OF PRESIDING OFFICER'S INFORMATION REQUEST NO. 4

The United States Postal Service hereby provides its response to Question 7 of Presiding Officer's Information Request No. 4, issued on May 19, 2006: The question is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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Question 7. Page 12 of USPS-LR-9 refers to three problems that need to be solved in the optimization model.

- a. Please explain which problem is solved first and how that solution is used in solving the other problems.
- b. For the transportation model, please
 - i. explain which aspects of transportation are being optimized in the optimization step and which are not; for example:
 1. distance between RDCs;
 2. distance between RDCs and LPC/DPC;
 3. distance between LPCs and DPCs;
 4. distance between LPC/DPC and DDU's;
 5. costs;
 6. mode of transport;
 7. mail volumes on contract routes;
 8. transport times;
 9. utilization of truck space; or
 10. other (please identify and explain fully).
 - ii. Is the optimization of transportation based on mileage (i.e., shortest route), cost (i.e., lowest cost), or some other factor (please identify and explain fully)?
 - iii. If utilization of truck space is being optimized, please explain in mathematical terms how utilization is calculated and optimized.
 - iv. If cost is being optimized, please explain in mathematical terms how cost is calculated and optimized.
 - v. If distance is being optimized, please explain in mathematical terms how distance is calculated and optimized.
 - vi. If other aspects of transportation are being optimized, please explain in mathematical terms what is being optimized and how.
- c. For the processing role model, please
 - i. explain which aspects of mail processing are being optimized in the optimization step and which are not; for example:
 1. machine hours;
 2. labor hours;
 3. utilization of square feet;
 4. facility-specific mail processing costs;
 5. facility-specific productivity; or
 6. other (please identify and explain fully).
 - ii. If machine hours are being optimized, please explain in mathematical terms how required and available machine hours are calculated and optimized. Are machine hours facility-specific actual data, system or group averages based on actual data, hours based on theoretical throughput rates from the machine's design specifications, or some other measure? (Please explain fully.)

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Question 7 (continued):

- iii. If utilization of square feet is being optimized, please explain in mathematical terms how required and available square feet are calculated and optimized.
- d. Is the ZIP Code assignment based on mileage, cost, or some other factor?
 - i. If it is based on cost, please explain in mathematical terms how costs are calculated and optimized.
 - ii. If it is based on some other factor, please explain fully what this factor is, how it is calculated, and how it is optimized.

RESPONSE:

- a. The three problems are modeled as one mathematical problem. The problem is formulated as a mixed-inter linear programming model.
- b. This model does not optimize transportation routings; it only calculates total transportation costs associated with the potential future network. In estimating the costs, the following aspects of transportation are considered.
 - i. 1 through 9 are considered.
 - ii. The transportation cost of the future network is based on both the mileage (distance) and unit cost (rate per mile). The overall model objective is to minimize total mail processing and transportation cost for the entire network.
 - iii. The utilization of truck space is not optimized. The utilization of trucks by lane type (e.g., between LPC/DPC and RDC, between RDCs) are input to the model and are based on historical utilization highway contracts.

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RESPONSE TO Question 7 (continued):

- iv. Please refer to the USPS Library Reference N2006-1, section 3.5
 - v. Please refer to the USPS Library Reference N2006-1, section 3.5
 - vi. N/A
- c.
- i. Please refer to the USPS Library Reference N2006-1, section 3
 - ii. Please refer to the USPS Library Reference N2006-1, section 3.4
 - iii. Please refer to the USPS Library Reference N2006-1, section 3.4
- d.
- i. Please refer to the USPS Library Reference N2006-1, section 3.5
 - ii. Please refer to the USPS Library Reference N2006-1, section 3.5