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

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

REBUTTAL TESTIMONY
OF
JOHN T. PICKETT
ON BEHALF OF THE

UNITED STATES POSTAL SERVICE

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1 **Library References**

2
3 The following Category 2 Library References are associated with my

4 testimony:

5 USPS-LR-I-432: Amtrak Premium and Roadrailer Analyses (Available
6 only under protective conditions; see Presiding
7 Officer's Ruling No. R2000-1/114)

8
9 USPS-LR-I-433: Amtrak Roadrailer Special Study

Autobiographical Sketch

1
2
3

An autobiographical sketch was included in my direct testimony, USPS-T-19.

1 **Purpose and Scope**

2
3 The purpose of my testimony is to rebut arguments made by witnesses Nelson
4 (MPA-T-3) and Neels (UPS-T-3). My testimony demonstrates that :

- 5 1) The Amtrak premium calculated by witness Nelson fails to take into
6 account all costs that would be incurred if inter-SCF highway
7 transportation were used in place of Amtrak. When all costs are
8 included, the premium all but disappears.
- 9 2) The distribution of Amtrak Roadrailer costs suggested by witness
10 Nelson is incorrect. An alternative distribution, based on a special
11 study, is provided.
- 12 3) Both the WNET network premium and the Eagle network premium
13 should continue to be assigned to Express Mail alone, contrary to
14 the recommendation of witness Neels.

1 **1. MPA Witness Nelson's Amtrak Premium is, at best, grossly overstated**
2 **and cannot be relied upon.**

3

4 MPA witness Nelson (MPA-T-3) asserts that \$19.0 million would be saved
5 if Amtrak transportation were switched to highway. (Tr. 28/13418 to 13420.) Mr.
6 Nelson asserts that mailers pay this premium, as he refers to it, is "without
7 discernable benefits." (Tr. 28/13419.) Mr. Nelson's calculation of the Amtrak
8 premium is flawed and omits significant costs associated with the highway
9 transportation he promotes.

10 Using Amtrak footage summaries, Mr. Nelson calculates the alternative
11 cost for highway using the average cost per cubic foot mile from HCSS data file
12 by the Postal Service. Mr. Nelson's analysis excludes scheduled Amtrak
13 movements with 30 feet or less of contracted footage and also exclude any
14 Amtrak movements that cost less than comparable highway movements.

15 I have replicated Mr. Nelson's analysis and calculated a number of
16 revisions to Nelson's premium calculation. Mr. Nelson's calculation of highway
17 costs include only the cost of non-renewed contracts, which are significantly less
18 expensive on a cost per cubic foot-mile basis than renewed contracts. Absent a
19 complete overhaul of our contracting processes between now and the test year,
20 this assumption is erroneous and significantly inflates the premium estimate.
21 Removing this assumption¹ (and basing the highway costs estimate on the cost

¹ This is referred to as Revision 1 in my workpapers.

1 per cubic foot mile of all contracts) reduces the premium estimate from \$19
2 million to \$14.6 million.

3 Long haul highway capacity can only be purchased in truckloads. Mr.
4 Nelson implicitly assumes that highway capacity can be purchased in infinitely
5 small increments. I correct this shortcoming by converting Amtrak footages into
6 trailer loads². Assuming that trailer loads must be purchased adds significantly
7 to the estimated cost of highway transportation. By making this realistic
8 assumption, the premium estimate becomes \$16.7 million.

9 These two corrections, when made simultaneously, compound one
10 another. When both assumptions are made together, the Amtrak premium is
11 reduced to only \$11.9 million.

12 For the most part, Amtrak footage is purchased on a one-way basis,
13 whereas highway transportation is purchased on a round-trip basis. Thus,
14 Amtrak rates reflect the cost of returning surplus equipment to the originating
15 city. The highway rates used by Nelson generally do not include this feature. To
16 substitute highway for Amtrak in the manner suggested by Mr. Nelson's cost
17 estimates would result in the rapid accumulation of trailers at destinations such
18 as those in Florida and on the West Coast, unless the trailers were returned to
19 the origin.

² To give Mr. Nelson the benefit of a doubt, I allow for half trailer loads to be provided. The cost highway estimates would be substantially increased, and the premium would be substantially reduced, if I assumed full trailer loads. This change is referred to as Revision 2 in my workpapers.

1 I have calculated the cost of returning the trailers to the origin cities. This
2 return cost, like the premium, varies depending on the assumptions made in the
3 analysis. I calculate this cost under all the scenarios described above including
4 (1) using Nelson's assumptions, (2) using my Revision 1, (3) using my Revision
5 2, and (4) using my Revisions 1 and 2 together. My estimates of the cost of
6 returns range from \$14.5 million using Mr. Nelson's assumptions to \$16.4 million
7 using both of my revisions together. Mr. Nelson erroneously ignores trailer
8 returns and assumes the cost of this operation to be \$0. Making all three
9 modifications to Mr. Nelson's analysis, results in an estimated premium of -\$4.5
10 million. This suggests that Amtrak provides transportation services to the Postal
11 Service at a discount³.

12 In addition to these shortcomings, Mr. Nelson's testimony appears to be
13 based on a misunderstanding of how the Postal Service and Amtrak operate.
14 Apparently, Mr. Nelson believes that the Postal Service is consolidating less-
15 than-truckload (LTL) shipments to truckload. (Tr. 28/13419.)

16 To better understand Amtrak mail operations, I recently traveled to
17 Chicago to observe Amtrak's terminal operations, which provide substantial
18 consolidation services. In Chicago, Amtrak crossdocks loads between arriving
19 and departing mail cars and Roadrailer⁴. This consolidation activity allows LTL
20 shipments to travel coast to coast without handlings by postal personnel. Amtrak

³ I am not suggesting that, in the absence of Amtrak, the Postal Service would operate in the manner described herein. My calculations merely follow logically from Mr. Nelson's presumed inter-SCF highway operations.

1 also consolidates LTL loads originating in the Chicago area for shipment to the
2 East and West. A staff of forklift operators and clerks works 24-hours a day in
3 the rail equivalent of a truck terminal⁵. I am told that a similar operation exists in
4 Philadelphia. Smaller terminal handling operations are also provided by Amtrak
5 elsewhere. Clearly, if the Postal Service were to provide the same service using
6 highway contractors, it would have to purchase substantial facility space and
7 equipment to support consolidation operations and hire additional personnel to
8 load and unload trailers. I have not estimated the costs of either the Amtrak
9 terminal operations or a comparable Postal crossdock operation. I suspect they
10 would amount to several million dollars.

11 To summarize, for a variety of reasons, Mr. Nelson's Amtrak premium is
12 dubious, at best. Accordingly, I recommend that the Commission dismiss
13 entirely this part of his testimony.

14 **2. Mr. Nelson's assessment of the use of Roadrailleurs is based on**
15 **speculation. A special study provides an appropriate distribution of**
16 **Roadrailer costs.**

17
18 Mr. Nelson argues that Roadrailleurs are more akin to inter-SCF highway
19 transportation than to conventional Amtrak service. Since Roadrailleurs are not
20 included in the TRACS Amtrak sample, he asserts that Roadrailleurs should be
21 distributed on the TRACS inter-SCF highway distribution key rather than the

⁴ In addition to this crossdocking operation, Amtrak also handles full Roadrailleurs in a rail yard located near the train station. These full loads move directly to the Chicago "2C Metro" facility.

⁵ It should also be noted that the Roadrailleurs I observed while in Chicago carried nothing but Periodicals.

1 TRACS Amtrak key. Thus, Nelson reduces Periodicals costs by \$3.1 million. (Tr.
2 28/13413 to 13414.)

3 Mr. Nelson is correct that Roadrailers are not currently sampled in
4 TRACS. However, as he readily admits, the composition of mail on Roadrailers
5 costs is unknown. Rather than adopt or oppose Mr. Nelson's creative
6 speculation, the Postal Service conducted a special study of mail on Roadrailers.
7 This study, contained in USPS-LR-I-433, found that Roadrailers carry a higher
8 percentage of Periodicals than inter-SCF highway, but a lower percentage than
9 conventional Amtrak. Based on the results I recommend reducing BY 1998
10 Periodicals Amtrak costs⁶ by \$2.3 million. The Postal Service is actively studying
11 how to include Roadrailers in the TRACS Amtrak sample during FY 2001.

12 **3. UPS witness Neels contends that the WNET and Eagle premiums should**
13 **be distributed to Priority and Express Mail. His arguments are based on**
14 **apparent misunderstandings of postal operations and should be rejected.**
15

16 Witness Neels asserts that, if Express Mail was all that mattered, the
17 overnight Western network (WNET) could be operated with much smaller
18 aircraft. The larger aircraft in use are indicative of a desire to provide service for
19 both Priority Mail and Express Mail. Thus, he claims that the premiums for the
20 WNET, and, in apparent guilt by association, the Eagle network should be
21 attributed to Priority Mail and Express Mail. (Tr. 32/15996 to 16004.) I believe
22 that the use of Boeing 727s on the WNET is a consequence of a conscious effort
23 to efficiently operate dedicated air networks in unusual conditions.

1 WNET virtually requires a larger, jet aircraft to operate smoothly. For
2 nearly every city on the overnight WNET, a jet aircraft is required to meet
3 operational linehaul and terminal handling requirements.

4 Jet aircraft fly considerably faster than turboprops. According to its
5 manufacturer, the Boeing 727, which is the primary aircraft used on both the
6 Eagle network and the WNET, has a cruising speed of nearly 600 miles per hour.
7 Both the Metro III and the Beechcraft 1900, two turboprops used by the Postal
8 Service, have cruising speeds of just over 300 miles per hour⁷. Therefore, a
9 Boeing 727 can fly between cities in approximately half the time it would take a
10 turboprop.

11 The speed differential between jet aircraft and turboprops is a critical
12 factor when operating hub and spoke networks. One delayed flight inbound to
13 the hub can delay all outbound departures. The faster cruising speed of jet
14 aircraft can compensate for unanticipated delays related to weather, air traffic
15 control problems, congestion at major airports, and mechanical problems. It is,
16 therefore, not surprising that Postal Network Operations finds jet aircraft far more
17 reliable in such a demanding operational environment.

18 Jet aircraft such as the Boeing 727 carry most of their load in containers.
19 Both the Metro III and the Beechcraft 1900 carry bedloaded, or non-
20 containerized, mail. The absence of containerization greatly increases the time it

⁶ The complete redistribution of Roadrailer costs for all classes of mail can be found in LR-I-432.

⁷ Dr. Neels conceded that there are some limitations to the use of these aircraft in the context of WNET and Eagle operations. (Tr. 32/16116 to 16117.)

1 takes to load mail at origin airports, transfer mail at the hub airport, and unload
2 mail at the destination airports⁸.

3 Based on cruising speed and lack of containerization, I conclude that
4 using turboprops would double the amount of time needed to operate the WNET
5 overnight network.

6 Mountains and certain atmospheric conditions further constrain the
7 usefulness of turboprops. A fully loaded turboprop would find clearing the Rocky
8 Mountains to be a dubious proposition, particularly on hot summer nights. Even
9 with the 727 jet aircraft, there are times when departing Denver that the aircraft's
10 maximum payload must be closely calculated with a careful balance of payload
11 to clear the mountains.

12 The 727s used in Postal network operations have sophisticated avionics,
13 such as heads up display (HUD) electronics. With this equipment, the 727s on
14 the networks can operate in adverse weather conditions. Turboprops lack this
15 capability. Because of these limitations, reliance on turboprops would cause
16 service to fall to unacceptable levels.

17 For these reasons, turboprops are simply inadequate for the WNET.
18 Because of the longer distances involved, the Eagle network is even more time

⁸ Dr. Neels also agrees that lack of containerization would create operational concerns. (Tr. 32/16114.)

1 constrained. Extensive use of turboprops on Eagle is simply not a realistic
2 proposition⁹.

3 The Boeing 727 became the primary aircraft used on WNET, largely
4 because of the desire to standardize air containers in postal operations. The
5 WNET solicitation does not specify aircraft, but it does specify (among many
6 other things) that A-2 containers must be used. The A-2 container has long
7 been the standard container used on the Eagle network. Since the overnight
8 WNET¹⁰ operates flights to many Eagle cities such as Los Angeles, San
9 Francisco, Phoenix, San Diego, Portland, Seattle, Salt Lake City and Denver, the
10 specification of a single container type is completely understandable. The A-2
11 container rules out the smaller DC-9-15 as a viable aircraft for the WNET since
12 the DC-9 is not compatible with the A-2. And, despite its larger size, the 727 is
13 comparable in cost to the DC9¹¹.

14 As Dr. Neels agreed (Tr. 32/16108), his suggestion that the 727 is the
15 only aircraft which can use an A-2 container (Tr. 32/16072) was incorrect.
16 According to Postal Network Operations personnel, the A-2 can also be used on
17 DC-8s, 737s, 747s, and 757s. While a contractor could have offered a mix of

⁹ Dr. Neels's suggestion that turboprops could be used on the Eagle network is not entirely without merit. Turboprops are used as for feeder air taxis service and on one flight connecting Las Vegas to the WNET hub.

¹⁰ An additional flight operates between the WNET hub and Indianapolis.

¹¹ According to Boeing (which merged with McDonnell-Douglas, the manufacturer of the DC-9), there were approximately 976 DC-9s produced from 1964 through 1982. Boeing produced 1,832 727s from 1964 to 1984. Cargo Facts (April 1999), a trade industry newsletter, counted 104 DC9 freighters, 224 727-100s and 259 727-200s in its "World Freighter Inventory as of December 31, 1998". This disparity suggests that the current supply of 727s is likely to greatly exceed the supply of DC9s, resulting in a lower cost for the 727. The relative costs is also affected by the relative availability of 727s configured with certain equipment. The WNET contract states a

1 aircraft, the use of a single aircraft greatly simplifies aviation operations. With a
2 single aircraft, the contractor can switch parts and crews among network aircraft.
3 The Boeing 727 thus seems to be the most widely available freight aircraft that
4 can economically provide the service requested by the Postal Service.

5 Dr. Neels also suggests that the Postal Service could use highway
6 transportation in some instances instead of aircraft. (Tr. 32/16078 to 16079 and
7 16113.) The Postal Service already does so. Prior to 1998, Cincinnati was
8 served by an Eagle flight. That flight was discontinued when highway service
9 was found to be equally reliable. Additional highway feeder service for cities
10 near Indianapolis and the WNET hub operate under separate highway contracts
11 such as Louisville and Dayton

12 Dr. Neels concludes that because of the relatively low Express Mail
13 pound-mile percentage on the overnight WNET, the Eagle premium should be
14 distributed to both Priority Mail and Express Mail. (Tr. 32/15998 to 16000.) The
15 Eagle overnight network is very similar to the network as it existed in 1990. For
16 all intents and purposes, it performs the same function with slightly different
17 equipment (e.g., aircraft have been fitted with hush kits to make them Stage III
18 compliant) and flies to nearly all the same cities¹². The share of Express Mail on
19 Eagle is substantially higher than Express Mail share on the overnight WNET.
20 The 1998 distribution factor for Express Mail on the overnight WNET is 9

preference for Category II avionics, which allow take off and landing under adverse weather conditions. Moreover, the contract also requires that jet aircraft meet Stage III noise regulations.

¹² An Eagle flight was added to and from Portland and Salt Lake City, recently. Like all Eagle planes, this aircraft is a Boeing 727.

1 percent. On Eagle, it is 24 percent. In FY 1999, the Eagle share is 30 percent
2 while the overnight WNET share is 11 percent. I would also note that the 30
3 percent Eagle Express Mail share is virtually the same as it was in Docket No.
4 R90-1¹³. (See Docket No. R90-1, PRC Op., Appendix J, p. 43.)

5 These shares, of course, are annual averages. The daily share of
6 Express Mail on Eagle and the overnight WNET can vary significantly. Capacity
7 must be available to meet these volume swings, some of which are somewhat
8 predictable (e.g., before Christmas, Valentine's Day, Mother's Day) and some of
9 which are not. The size of the Boeing 727 all but eliminates this concern.

10 Another interesting aspect of Dr. Neels's desire to distribute part of the
11 premium to Priority Mail is the increasing presence of First-Class Mail on
12 overnight¹⁴ dedicated air. In Docket No. R90-1, UPS argued that the entire
13 Eagle premium should be allocated to Express Mail¹⁵. The Commission
14 summarized part of UPS's testimony on the subject as follows:

15 "UPS premium costing. Witness Nelson argues that the presence of a
16 substantial amount of First-Class on the Eagle Network means that the
17 Postal Service cannot be using that transportation to provide premium
18 service to Priority Mail. He argues that Express Mail alone is responsible
19 for the premium." (PRC ORD, Docket No. R90-1, III-183, para. 3696.)
20

¹³ In Docket No. R97-1, when the Commission first agreed to attribute the premiums to Express Mail, the percentage of Express Mail on WNET was 11 percent, for Eagle it was 27 percent.

¹⁴ The use of dedicated air during the daytime increased significantly in FY 1999 when First-Class Mail was found to account for 59 percent of the pound-miles on dedicated air. This is nearly double the percentage (30) of pound-miles from Priority Mail. See FY 1999 Cost Segment 14 B Workpaper WS 14.4. Unlike Eagle, all WNET planes are currently "turned", or used during the daytime, 52 weeks per year.

¹⁵ Dr. Neels was apparently unaware of this since he did not review documents from that proceeding. (Tr. 32/16119.)

1 In that case, the First-Class share of Eagle costs was 14 percent. In Base Year
2 1998, First-Class shares of Eagle and the overnight WNET were 18 and 26
3 percent, respectively. In Fiscal Year 1999, the respective shares were 23 and 21
4 percent. These increases may be partly explained by the implementation of the
5 Priority Mail Processing Centers. One would expect that if the Eagle network
6 were truly caused by Priority Mail, the implementation of the PMPCs would have
7 caused some downsizing or a significant re-configuration of Eagle flights in the
8 areas affected by the PMPCs. This did not happen.

9 The fact is that First-Class Mail no longer takes a back seat to Priority Mail
10 in terms of criticality. The criteria for Economic Value Added (EVA) incentive
11 payments place equal importance on meeting service objectives for both First-
12 Class and Priority Mail. Furthermore, the penalties on the overnight WNET for
13 service failures¹⁶ for Express Mail are \$5.00 per pound of Express Mail, and
14 \$1.60 per pound of all other mail. For Eagle, the respective penalties are \$5.00
15 and \$0.20 per pound. Moreover, the WNET contract solicitation (USPS-LR-I-
16 443) contains numerous references to special treatment for Express Mail, but
17 none for Priority Mail¹⁷.

18 Dr. Neels's testimony (Tr. 32/16000 to 16001) gives undue weight to a
19 couple of documents summarizing a Postal meeting in 1995 (Tr. 6/2548-2554).
20 This meeting occurred long before the current WNET contract was in place. It

¹⁶ Service failures include failure to load mail at the origin, delayed ground delivery, and mail delivered to wrong destination. See USPS-LR-I-443, p. 31.

¹⁷ In fact, the only reference I could find to Priority Mail was the following strangely ambiguous definition in the Definitions section:

1 reflects, in part, the understandable desire of the author to improve service for
2 Priority Mail in Seattle and Denver. Service was lacking for the simple reason
3 that, at that time, WNET aircraft picked up mail in Seattle before Portland and
4 Salt Lake City before Denver. Portland and Salt Lake City are smaller volume
5 cities, but are located closer to the WNET hub. The early departure time meant
6 that Seattle and Denver had very little Priority Mail on the WNET flight. The
7 reconfigured WNET gave Seattle what it wanted¹⁸, and simultaneously added
8 Spokane, Billings, and Boise to the overnight WNET at virtually no additional
9 cost to the Postal Service¹⁹. Since 1998, however, field managers have become
10 increasingly motivated by the EVA program to improve service for First-Class
11 Mail²⁰. In fact, in nearly every conversation I have had with Postal field
12 personnel concerning dedicated air (and, for that matter, HASP transportation) in
13 the past few years, they have referred repeatedly to "two- and three-day mail",
14 not to Priority Mail or First-Class Mail. In light of the new incentives facing postal
15 managers, Dr. Neels gives an old document undue weight in a forward-looking
16 ratemaking environment.

17 The fact remains that overnight dedicated air networks are absolutely
18 needed to support a guaranteed overnight product. Without that product, the
19 overnight network, with its early mail acceptance times, would be superfluous.

"Priority Mail: First-Class Mail and First-Class zone rated (Priority) mail as defined in the U.S. Postal Service Domestic Mail Manual." (USPS-LR-I-443, p. 28.)

¹⁸ The "Executive Summary" memo refers to the pairing of Seattle with Anchorage. (Tr. 6/2553-2554). The WNET never did go to Anchorage.

¹⁹ The increase in overall cost to the Postal Service for the proposal in the 1995 document was \$576,384 on a base of \$45,382,011, or 1.3 percent (Tr. 6/2554).

²⁰ Priority Mail service performance was made an EVA criterion in FY 1999.