

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

POSTAL RATE AND FEE CHANGES, 2006

Docket No. R2006-1

RESPONSES OF POSTAL SERVICE WITNESS McCrERY  
TO INTERROGATORIES OF MAJOR MAILERS ASSOCIATION  
(MMA/USPS-T42-1-6)  
(June 26, 2006)

The United States Postal Service hereby provides the responses of witness McCrery to the above-mentioned interrogatories of Major Mailers Association, filed on June 12, 2006.

Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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## **RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS MCCRERY TO INTERROGATORIES OF MAJOR MAILERS ASSOCIATION**

### **MMA/USPS-T42-1**

Please refer to page 2 of your direct testimony where you describe how non-letters are culled out from the raw mail within the Advanced Facer Cancellor System (AFCS). What happens to a mail piece that is less than 6 1/8" tall, less than 1/4" thick and less than 11 1/2 inches long, but weighs up to 4 ounces. In other words, will the mail that meets the definition of a letter except for weight still be processed on automated equipment within the letter production line?

#### **Response:**

The AFCS does not measure weight, only thickness and stiffness. Such a piece could be ejected at the fine cull on the AFCS, although if it makes it past the fine cull it will probably process, though at slower speed and a higher jam/reject rate. If it is a random single piece on the DBCS, it could be processed on the equipment. If it is part of a large mailing of similar pieces, the operator will send the mail to manual processing, due to the unacceptable jam/reject rate on a MLOCR/DBCS, or to a DBCS with expanded capabilities (see USPS-T-42, pages 6 and 7) if the site is equipped with one.

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**MMA/USPS-T42-2**

Please refer to page 2 of your direct testimony where you describe how non-letters are culled out from the raw mail within the Advanced Facer Cancellor System (AFCS). What happens to a mail piece that is less than 6 1/8" tall, less than 1/4" thick and less than 11 1/2 inches long, but weighs up to 3.5 ounces. In other words, will the mail that meets the definition of a letter except for weight still be processed on automated equipment within the letter production line?

**Response:**

Please see the response to MMA/USPS-T42-2. The answer is the same for 3.5 ounces as for 4.0 ounces for mail processed on the AFCS. If the mail satisfies DMM section 201.3.13.4 "Heavy Letter Mail" (see <http://pe.usps.com/text/dmm300/201.htm>), it should process on the DBCS.

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**MMA/USPS-T42-3**

On page 12 of your direct testimony you note that automation-compatible mail rejected from a particular piece of equipment is directed to manual operations. In general, is it safe to conclude that any letters rejected from automation will be processed manually from that point on, until the letter reaches the delivery function? If no, please explain.

**Response:**

Destination plants often direct manual mail to an MLOCR/DIOSS operation for an attempt at automating the manual letters, volume which can consist of rejects generated at the origin plant as well as mail that bypassed automation (e.g., mail directed to manual units due to clearance time commitments of the MLOCR/DIOSS operation). DBCS equipment with expanded capabilities has a high tolerance for mail piece thickness. Sites with this equipment will route manual mail from origin sites to automation as well.

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**MMA/USPS-T42-4**

Please refer to page 12 of your direct testimony where you provide some recent statistics regarding barcoding within the Postal Service, as follows:

During FY 2005, the total letter mail volume was approximately 154 billion pieces, of which approximately 99 billion were barcoded through automation discounts, or 64.7 percent of all letters. Customer applied barcodes comprised almost 76 percent of the total letter mail barcodes.

- A. Can you confirm the volumes shown in the table below based on the description that you provide in your testimony? If not, please make corrections to the table, along with any explanations that are required.

FY 2005 Volumes

(Billions)

	(1)	(2)	(3)	(4)	(5)
Description	Mailer Barcoded (Discount)	Mailer Barcoded (No Discount)	Total Mailer Barcoded (1) + (2)	USPS Barcoded	Total Letters (3) + (4)
[1] First Class	46	18	64		
[2] Other Classes	53	0	53		
[3] Total Pieces [1] + [2]	99	18	117	37	154
[4] Percent of Total (1) / (5) for [3]	64%	12%	76%	24%	100%

- B. Can you fill in the table with actual figures (rounded to the nearest million), as well as the two empty boxes under Column 4, USPS Barcoded? If not, please explain.
- C. Can you confirm that all letters are either barcoded by mailers or by the Postal Service and that of the 154 billion "total letter mail volume," all such letters were barcoded? Please explain your answer. If there are volumes of letters that are not barcoded, please provide those volumes split up between First-Class and Other classes.

**Response:**

- A. See R2005-1, MMA/USPS-T29-3. The Postal Service does not track postal applied barcodes data that differentiate classes of mail. The volumes I can confirm in the above table are the following: In FY 2005,

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the volume of total letters was 154 billion pieces, and the mailer barcoded automation discount volume was 99 billion pieces.

B.

FY 2005 Volumes  
(Billions)

	(1)	(2)	(3)	(4)	(5)
Description	Mailer Barcoded (Discount)	Mailer Barcoded (No Discount)	Total Mailer Barcoded (1) + (2)	USPS Barcoded	Total Letters Barcoded (3) + (4)
[1] First Class	49.2	8.9	58.1	?	
[2] Other Classes	50.3	5.0	55.3	?	
[3] Total Pieces [1] + [2]	99.5	13.9	113.4	34.7	148.1
[4] Percent of Total (1) / (5) for [3]	67%	9%	77%	23%	100%

I am not able to fill in all the blank cells in the table with actual figures, since the Postal Service does not track the volume of postal applied barcoded letters by class of mail. Also, I changed the heading in the table for column (5) to read "Total Letters Barcoded" (including cards) in order to avoid any confusion with the total letter volume for FY 2005 which was 153.6 (or 154) billion pieces. The "Mailer Barcoded (No Discount)" column (2) figure (13.9 billion) includes business reply mail, courtesy reply mail, as well as Enhanced Carrier Route (ECR) High Density and Saturation letter mail which is required to be barcoded by the mailer but receives no additional automation discount. In order to be fully consistent with what is believed to be the data requested in each column, the current analysis reflects the volume of ECR High Density and Saturation carrier route letter mail as "Mailer Barcoded (No Discount)". This volume had previously not been included in this category, and the reference in the testimony also does

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not include this volume as mailer barcoded; therefore, this increases the percentage of "Total Mailer Barcoded" to 77%.

C. No. The 5.5 billion pieces (153.6 billion pieces minus 148.1 billion pieces) that were not barcoded included letters that were not able to be barcoded, as well as letters that the Postal Service does not ordinarily barcode, for example, letters for non-automation zones, political mail, and local mail entered late at destination delivery units such that time did not permit barcoding. This volume of non-barcoded letters cannot be differentiated by class.

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**MMA/USPS-T42-5**

Please describe the experiment that took place a few years ago whereby Standard letters weighing up to 4 ounces were processed on automated letter processing equipment. Please provide any relevant documents, including those relating to the design, conduct, and results of the study, the recommendations made and any steps taken by the Postal Service as a result of that study.

**Response:**

Attached is the study that tested letter mail up to 3.7 ounces.



# 3.5 ounce Heavy Letter Mail Field Evaluation Report

April 6, 2001  
Technology Development and Applications  
Engineering

## Introduction and Background Information

Since 1994 the U.S. Postal Service has accepted and discounted automation compatible mail that weighed as much as 3.3 ounces. Following a request from mailing industry representatives, the U. S. Postal Service agreed to conduct a test to determine the feasibility of raising the weight limit for automation compatible mail from 3.3 to 3.5 ounces. To make this determination test decks were obtained from a commercial mailing house. Mail pieces within the test deck were designed around a strict criterion, written by U.S.P.S. Engineering. This was done to eliminate those aspects, of currently accepted heavy mail pieces, that have proven to be problematic. The test was conducted at two geographic locations, Fort Myers Fl. and the suburbs of Philadelphia, Pennsylvania. At each location, two field sites participated in the test, a P&DC and a local Delivery Unit. In each P&DC mail was run on the MPBCS and the DBCS. In the Delivery Units, mail was run on the CSBCS. The test was conducted between 4/20/99 and 5/13/99. The goals and objectives of the test were as follows:

- To assess the impact of the 3.5 ounce mail on the automation equipment's ability to sort mail.
- To determine the degree to which the heavier mail affects the ergonomics of mail handling.
- To study the influence of the heavier mail upon the overall operational environment.
- To ascertain the extent to which the heavier mail will increase equipment maintenance costs.
- To provide data to be used in the processing cost comparison of the 3.5 oz. versus the 3.3 oz. mail.
- To do preemptive testing on 3.7 ounce mail for future reference.

## Test Plan

Six types of test decks were prepared for the test. Their contents were as follows:

- Test Deck 1 – 1 ounce letters with a 2% mix of 3.3 ounce letters.
- Test Deck 2 – 1 ounce letters with a 2% mix of 3.5 ounce letters.
- Test Deck 3 – all 3.3 ounce letters.
- Test Deck 4 – all 3.5 ounce letters.
- Test Deck 5 – all 3.7 ounce letters
- Test Deck 6 – 1 ounce letters with a 2% mix of 3.7 ounce letters.

The test consisted of daily test deck volume runs on the aforementioned equipment. Throughput, accept, reject, error, flyout, damage and jam rates were recorded. All mail pieces were manually examined for sort accuracy, stacker count and mail damage. The effect of the heavy mail on equipment maintenance was also evaluated. An Ergonomic evaluation was conducted as part of the test. Hour long volume runs were conducted to simulate the handling and fatigue conditions operators will experience during continuous processing of heavy mail.

## Observations and Test Results

The following are observations made during the test and summarized results based on the reduction of the raw data taken:

- As was expected, the 2% seeded decks of 3.3, 3.5 and 3.7 ounce mail processed extremely well and were no cause for concern.
- Test decks of 100% 3.7 ounce mail caused excessive amounts of damage to the equipment. Because of this, processing of the 3.7 ounce test decks was discontinued. Because of this, it is recommended that any future request to raise the weight limit above 3.5 ounces should be rejected as impractical given the current configurations of USPS mail processing equipment.
- CSBCS runs of 100% 3.3 and 3.5 ounce mail placed an enormous burden on the operators because of excessive overflow conditions. If volumes of pure heavy mail trays that reach delivery units grow to a level comparable to that processed during this test, sites may find their operations debilitated, given their current sweeping practices.
- Given that 3.3 ounce mail pieces are currently being accepted, the “worst case” comparison that this test examined was that of the performance of 100% 3.3 ounce mail versus 100% 3.5 ounce mail. The table below summarizes the results of this “worst case” condition.

	100% 3.3 OZ	100% 3.5 OZ	DELTA
<b>→CSBCS←</b>			
<b>FORT MYERS D.U.</b>			
THROUGHPUT	2,682 PIECES	2,474 PIECES	
ACCEPT RATE	96.90%	97.70%	0.80% INCREASE
ERROR RATE	1.02%	0.06%	0.96% DECREASE
JAM RATE	0.34%	0.55%	0.21% INCREASE
<b>BLUE BELL D.U.</b>			
THROUGHPUT	2,671 PIECES	2,726 PIECES	
ACCEPT RATE	97.80%	98.60%	0.80% INCREASE
ERROR RATE	0.02%	0.00%	0.02% DECREASE
JAM RATE	0.22%	0.82%	0.6% INCREASE
<b>→DBCS←</b>			
<b>FORT MYERS P&amp;DC</b>			
THROUGHPUT	13,738 PIECES	11,269 PIECES	
ACCEPT RATE	97.70%	96.90%	0.80% DECREASE
ERROR RATE	0.00%	0.06%	0.06% INCREASE
JAM RATE	0.20%	0.24%	0.04% INCREASE
<b>SEPA P&amp;DC</b>			
THROUGHPUT	14,075 PIECES	15,347 PIECES	
ACCEPT RATE	98.50%	98.80%	0.30% INCREASE
ERROR RATE	0.00%	0.00%	NO DELTA
JAM RATE	0.10%	0.11%	0.01% INCREASE
<b>→MPBCS←</b>			
<b>FORT MYERS P&amp;DC</b>			
THROUGHPUT	14,293 PIECES	9,906 PIECES	
ACCEPT RATE	98.30%	98.60%	0.30% INCREASE
ERROR RATE	0.00%	0.00%	NO DELTA
JAM RATE	1.47%	0.92%	0.55% DECREASE
<b>SEPA P&amp;DC</b>			
THROUGHPUT	11,977 PIECES	13,184 PIECES	
ACCEPT RATE	96.70%	98.70%	2.00% INCREASE
ERROR RATE	0.01%	0.00%	0.01% DECREASE
JAM RATE	0.92%	0.43%	0.49% DECREASE

- As can be seen from the table, the performance differences between 3.3 ounce and 3.5 ounce mail pieces were marginal.

- The test revealed no increase in maintenance requirements due to the running of 3.5 oz. versus 3.3 oz. mail. However, it should be noted that the relatively short duration of the test could not reveal the long-term effects that the equipment may experience.
- The difference in throughput rates, error rates, and jam rates for the 3.5 oz. test decks and the 3.3 oz. test decks were negligible. However, it should be noted that throughput rates for both the 3.3 oz. and 3.5 oz. test decks were significantly lower than the typical throughput rates for 1 oz. letter mail.

## Recommendations

The U. S. Postal Service should consider increasing, with conditions, the weight limit for automation compatible letter mail from 3.3 ounces to 3.5 ounces. The conditions for this increase are as follows:

- The DMM should be amended to restrict the design of 3.5 oz. mail pieces. The purpose of these restrictions is to eliminate mail piece design that renders mail essentially nonmachinable in spite of the fact that it has been given an automation compatible discount. The following mail piece restrictions should be codified for inclusion in the DMM at the time of the next rate case:
  - 1) Maximum mail piece thickness should not exceed 0.255 inches. Mail piece thickness should not vary more than 15% over the surface of the mail piece.
  - 2) Size A8 envelopes (8.12 x 5.5) should be prohibited.
  - 3) The use of envelope windows, particularly open windows, should be prohibited.
  - 4) Envelope material should be no less than 28 lb. basis weight paper.
  - 5) Envelopes should be trayed using USPS white/red plastic corrugated EMM trays.
  - 6) Insert shift in the lengthwise direction should not exceed a maximum of .562 inches. .
- Ergonomic concerns may be minimized by a directive to the field requiring that incoming trays of heavy mail be mixed with trays of lighter mail. Such a procedure will limit the risks, faced by the equipment operators, of lifting and repetitive motion injuries inherent in the continuous handling of heavy mail. An Ergonomics report is included in this report, (see attachment B).
- Consideration should be given to the potential that heavy mail volume that reaches the CSBCS machines in Delivery Units might rise to an unmanageable level. Before this occurs the current methods of operation should be reevaluated.

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### **MMA/USPS-T42-6**

Please describe and discuss the design specifications/capabilities of the latest automated letter sorting equipment as they relate to the weight of a letter. Please provide all related documents including technical information/specifications furnished by or to the manufacturers of such equipment if such documents relate to the weight of a letter. For each model of automated letter sorting equipment, please indicate the number of machines deployed at the end of BY 2005 and the number that the Postal Service estimates will be deployed by the end of TY 2008.

### **Response:**

I am not aware of any documents furnished to or by the manufacturers regarding the weight of a letter. The DBCS equipment with expanded capabilities has a maximum weight specification of 6 ounces. The design specification for all other automated letter sorting equipment is 3.0 ounces, however, experience and subsequent testing has determined that DBCS equipment can operate at an acceptable jam/reject rate and throughput with letters up to 3.5 ounces. There were 1083 AFCS machines deployed by 2005 with no plans for additional machines by 2008. There were 875 MLOCs deployed by 2005, and it is expected that approximately 400 machines will remain in operation by 2008. There were over 5200 DBCS machines deployed by 2005 and 250 additional machines will be deployed by 2008. There were 94 DBCS machines with expanded capabilities deployed by 2005. All 94 DBCS –EC machines and a number of DBCS machines are expected to be converted to DIOSS-ECs, for a total of 617 DBCS machines with expanded capabilities by 2008. There were approximately 500 MPBCS deployed by 2005, and it is expected that

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approximately 300 machines will remain in operation by 2008. There were over 3500 CSBCS deployed by 2005 and no plans for additional machines by 2008.