

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

RATE AND SERVICE CHANGES TO IMPLEMENT
BASELINE NEGOTIATED SERVICE AGREEMENT
WITH BANK OF AMERICA CORPORATION

Docket No. MC2007-1

**RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS AYUB TO INTERROGATORY OF THE OFFICE OF CONSUMER
ADVOCATE (OCA/USPS-T1-35)
(April 30, 2007)**

The United States Postal Service hereby provides the response of witness Ayub to the following interrogatory of the Office of Consumer Advocate: OCA/USPS-T1-35, filed on March 9, 2007. The interrogatory is stated verbatim and is followed by the response.

UNITED STATES POSTAL SERVICE

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OCA/USPS-T1-35. Please refer to your testimony at page 16, lines 8-9, and page 21, lines 1-2, which reference the baseline value read/accept rates for First-Class Mail and Standard Mail letters, respectively. Please provide any information available to the Postal Service on improvements in the read/accept rates for First-Class Mail and Standard Mail letters since FY 2000, such as engineering or economic studies, reports or presentations provided to the GAO, USPS Inspector General, mailers, or Board of Governors, etc.

RESPONSE:

Attached to this interrogatory response is an xls workbook titled "IMB Scan Rate_#35" that displays data from a report containing customer-specific information on the read and accept rates of three customers who participated in a pilot test. The data collection time period ran from November 21, 2006 through March 16, 2007. The Postmaster General, John E. Potter, spoke about the pilot test of Seamless Acceptance that produced these data in his opening remarks during the National Postal Forum. The methodology of the study is as follows:

1. Mailers provided the Postal Service with piece-level electronic documentation that contained customer-specific data in the Intelligent Mail Barcode ("IMB") applied to the pieces included in the mailing.
2. Scans were gathered off of Mail Processing Equipment (MPE) as the mailpieces were processed through the network. Those scans were sent to the Confirm system.
3. The scans from the Confirm system were then compared to the piece-level electronic documentation. The read rate percentage was calculated by dividing the number of pieces in the electronic documentation for which there was no scan in the Confirm data by the total number of pieces in the electronic

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documentation and deducting that number from 1 (i.e. scan rate = 1 – no. scans/electronic documentation).

Customer-specific information was redacted from the attached workbook by replacing customer names with the letters “A,” “B,” and “C.” In the workbook, the letters “A” and “B” represent third-party vendors. The worksheet that excludes information on customer “C” is intended to provide data on how third-party vendors performed independently.

Also attached to this interrogatory response is a power point presentation titled “Seamless Acceptance” that contains information on the Seamless Acceptance Process and the Seamless Acceptance Pilot test. This presentation was given by Pritha Mehra, Manager, Marketing Technology & Channel Management, at a meeting of the Major Mailers Association (“MMA”) on April 17, 2007.

Several conclusions and caveats should be made about the results of the pilot test. First, the test results are likely to overstate the read/accept rates that mailer-generated barcodes are likely to achieve in the ordinary course of business. High profile pilot studies of this kind are often viewed by the participants as a chance to showcase both the new technology and the skill of the study participants at mastering it. For this reason, participants in studies of this kind often devote more resources to maintenance, alignment, cleaning and calibration than might be expected with a mature technology used in the ordinary course of business. Needless to say, special efforts of this kind can hardly be regarded as good proxies for Before Rates performance in an NSA.

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Second, even with all the special attention, the scan rates are only marginally improved over the older, historic ones. The weighted average scan rate of the three study participants - 97.14 percent - is not much higher than the scan rates of 96.8 and 96.9 percent relied on by BAC and the Postal Service in this case, which were based on the 1999 data set forth in LR-L-110.

Third, equally significant is the variation in performance among the three participants. The results of IMB Scan Rate_#35.xls, stated separately for each of the three study participants are as follows:

Mailer A: 97.28 percent

Mailer B: 97.28 percent

Mailer C: 96.88 percent

The results achieved by Mailer C are lower than those achieved by Mailers A and B, and are virtually identical to the baseline values used by the Postal Service and BAC in this case. The disparity confirms that merely adopting IMB's is by itself insufficient to achieve better-than-1999 read/accept rates: to achieve even modest improvements, the mailer must make additional process changes, including more attentive process control. These additional process changes are unlikely to be free goods. They are likely to require additional expenditures, and therefore cannot be regarded as indicative of Before Rates performance.

Moreover, we believe that significant improvements in read/accept rates for bulk prebarcoded mail of the sort entered by BAC are unlikely to have occurred since 1999. Most of our R&D and investments in barcoding equipment upgrades since 1999 have been aimed at improving our read/accept rates for handwritten addresses and other

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low-quality addresses, and for development of the IMB with its additional data fields.

The results, while significant, do not appear to have resulted in a significant improvement in the read/accept rates for the barcodes entered by the large-volume service bureaus that prepare the mail of BAC and its peers.

Attachment to Response of USPS witness Ayub to OCA/USPS-T1-35

Mailer	Mailing Date	Pieces	Scan Rate
A	11/21/06	3577	99.36%
A	11/28/06	4756	99.68%
A	11/30/06	47406	97.72%
A	12/5/06	1891	99.84%
A	12/7/06	11714	99.18%
A	12/12/06	3077	99.71%
A	1/4/07	48213	98.68%
A	1/9/07	44080	97.91%
A	1/11/07	46390	98.60%
A	1/18/07	43968	97.53%
A	1/23/07	45502	98.46%
A	1/25/07	45227	97.33%
A	1/30/07	48391	97.74%
A	2/1/07	42295	99.08%
A	2/6/07	41784	98.22%
A	2/13/07	22224	94.92%
A	2/22/07	19865	99.16%
A	2/27/07	122995	92.17%
A	3/6/07	40512	97.08%
A	3/8/07	47228	99.00%
A	3/13/07	26163	98.20%
A	3/15/07	112959	98.25%
B	12/13/06	1167	98.89%
B	12/14/06	1527	99.54%
B	12/15/06	1725	90.32%
B	12/19/06	1413	99.43%
B	1/16/07	1461	99.52%
B	1/17/07	1344	99.26%
B	1/18/07	1715	99.36%
B	1/19/07	1600	99.19%
B	1/30/07	1674	99.82%
B	2/9/07	1595	96.05%
B	2/13/07	1446	97.58%
B	2/14/07	1128	91.31%
B	2/20/07	1158	96.37%
B	2/23/07	1237	97.66%
B	2/28/07	1634	90.70%
B	3/1/07	1770	96.55%
B	3/2/07	1912	99.16%
B	3/13/07	1552	99.61%
B	3/14/07	1300	99.38%
B	3/15/07	1297	93.29%
B	3/16/07	1330	99.55%
C	1/26/07	69840	92.38%
C	1/29/07	49104	98.52%
C	2/1/07	15294	97.14%
C	2/5/07	31781	99.05%
C	2/6/07	33629	96.43%
C	2/8/07	32030	98.28%
C	2/16/07	42781	98.24%
C	2/20/07	22907	97.65%

Average Scan Rate =	97.55%
Weighted Av Scan Rate =	97.14%
Mailer A	
Average Pieces	39555.3
Average Scan Rate	98.08%
Weighted Av Scan Rate	97.28%
Mailer B	
Average Pieces	1475.5
Average Scan Rate	97.26%
Weighted Av Scan Rate	97.28%
Mailer C	
Average Pieces	37587.7
Average Scan Rate	97.13%
Weighted Av Scan Rate	96.88%

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C	2/26/07	29740	98.00%
C	2/27/07	52615	97.45%
C	2/28/07	34369	94.07%
C	3/1/07	49474	98.65%
C	3/2/07	25076	96.83%

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A	12/12/06	3077	99.71%
B	12/13/06	1167	98.89%
B	12/14/06	1527	99.54%
B	12/15/06	1725	90.32%
B	12/19/06	1413	99.43%
A	1/4/07	48213	98.68%
A	1/9/07	44080	97.91%
A	1/11/07	46390	98.60%
B	1/16/07	1461	99.52%
B	1/17/07	1344	99.26%
B	1/18/07	1715	99.36%
A	1/18/07	43968	97.53%
B	1/19/07	1600	99.19%
A	1/23/07	45502	98.46%
A	1/25/07	45227	97.33%
B	1/30/07	1674	99.82%
A	1/30/07	48391	97.74%
A	2/1/07	42295	99.08%
A	2/6/07	41784	98.22%
B	2/9/07	1595	96.05%
B	2/13/07	1446	97.58%
A	2/13/07	22224	94.92%
B	2/14/07	1128	91.31%
B	2/20/07	1158	96.37%
A	2/22/07	19865	99.16%
B	2/23/07	1237	97.66%
A	2/27/07	122995	92.17%
B	2/28/07	1634	90.70%
B	3/1/07	1770	96.55%
B	3/2/07	1912	99.16%
A	3/6/07	40512	97.08%
A	3/8/07	47228	99.00%
B	3/13/07	1552	99.61%
A	3/13/07	26163	98.20%
B	3/14/07	1300	99.38%
B	3/15/07	1297	93.29%
A	3/15/07	112959	98.25%
B	3/16/07	1330	99.55%

Average Scan Rate = 97.68%
 Weighted Av Scan Rate = 97.28%

Seamless Acceptance Pilot

February 20, 2007

Agenda



- ▶ Pilot Status
- ▶ Pilot Findings
- ▶ Business Entity Identifier (BEI)
- ▶ Assessment Approach
- ▶ Feedback Options
- ▶ Next Steps

Seamless Acceptance Vision



Leverage technology to streamline induction and verification of mail.

- ▶ Reduce mailer and USPS costs and improve efficiencies for mail induction
- ▶ Reduce and eventually eliminate manual verification activities
- ▶ Provide more accurate feedback on mailings
- ▶ Provide basis for Visibility & Service measurement
 - Improve Start-the-Clock measurement

Pilot Status



- ▶ Pilot analysis for MLOCR inkjet mailers in Sept. 06
 - Prudential (IMB): 126 FCM jobs, 5,247,594 pieces
 - PSI (IMB): 87 FCM jobs, 869,363 pieces
 - ZipSort (Unique IMB): 41 FCM jobs, 52,562 pieces

- ▶ Using piece scan data to verify:
 - Mailpiece Count
 - Barcode Quality
 - Presort Errors
 - Minimum Piece Count per ZIP Group
 - Address Validity
 - Address Hygeine



Pilot Enhancements

Since the last MTAC session in November, several changes have been introduced in the pilot.

- ▶ All mailers apply an Intelligent Mail® barcode (IMB) including a delivery point
- ▶ All mailers submit mail.dat files
- ▶ Receive automated feed of address change information
- ▶ Started application of 10/24 tray labels on all Seamless mail at one facility
- ▶ Have initiated tray scan analysis including use of tray weights from PostalOne! TMS



Preliminary Findings

Data collected through the pilot indicates that Seamless Acceptance is possible.

- ▶ Electronic Documentation Quality
 - Piece counts differences between Tray and Piece Files close to 0%
 - Piece to Tray associations are nearing 100%
- ▶ Mailpiece Counts
 - Increases in scan rate allow accurate determination of the number of manifested pieces
- ▶ Barcode Quality
 - High barcode quality results in 98% average scan rate
- ▶ Presort Errors
 - Errors caught by MERLIN are also found by SAVP
- ▶ Address Validity
 - Average 1.5% invalid POSTNET
- ▶ Address Hygiene
 - COA and Returned Mail percentages can be evaluated



Mailpiece Count

Piece scans have been compared to the electronic documentation to verify an accurately documented piece count.

- ▶ Current scan patterns
 - IMB: 98% scan rate, 1-3 scans per piece
 - 2% increase in scan rate since November
- ▶ Under 1% of scans cannot be associated to electronic piece documentation
 - Address forwards have been removed from unmanifested scans
 - Remaining unmanifested scans may be due to USPS POSTNET changes that are not address forwards
 - Unique piece identifier will eliminate this issue
- ▶ Unique piece identifier at one mailer allows individual pieces to be tracked
 - No duplicates have to be excluded from the mailing
 - USPS delivery point changes can be tracked



Barcode Quality

Compare barcode read rates across equipment to determine barcode quality.

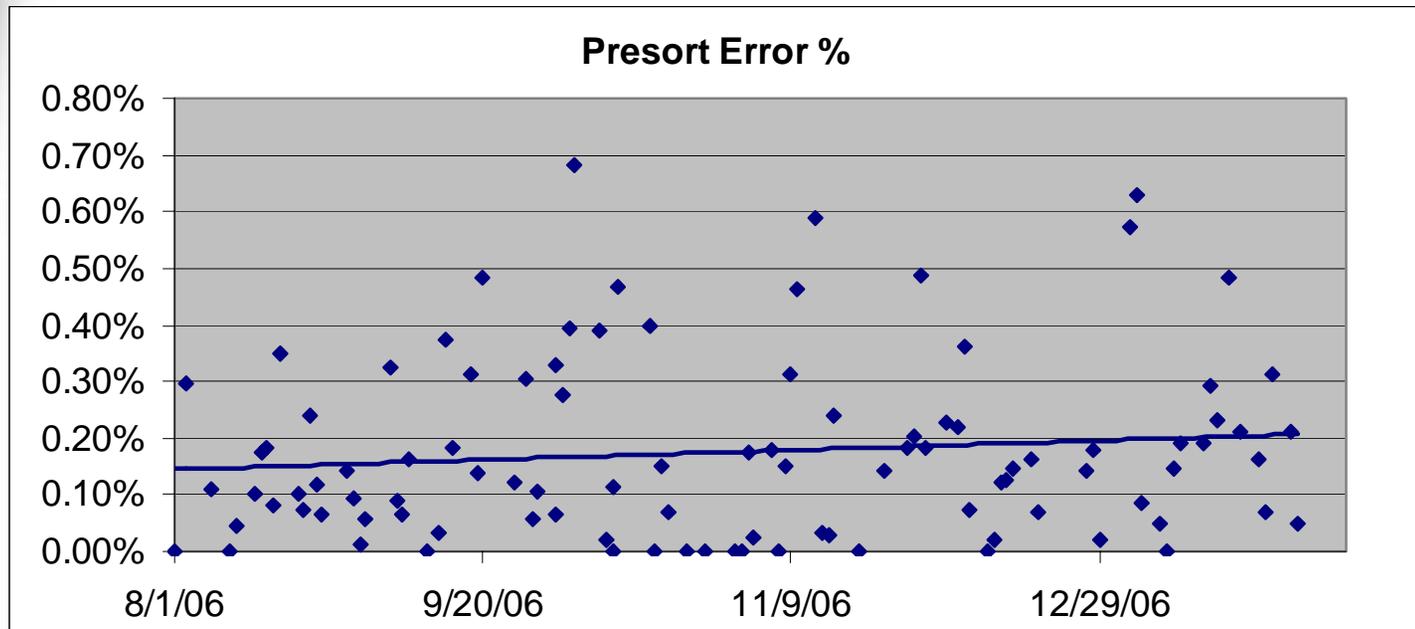
- ▶ Scans are compared to the manifest to determine read rate
- ▶ Using scans, poorly prepared barcodes can be determined
 - High quality pieces (over 99% pass rate on MERLIN) receive a 99%+ operational scan rate
 - Lower quality pieces receive a lower operational scan rate (80-96%)
- ▶ End of Run (EOR) data will be used to determine the read rate for a specific run

Seamless Acceptance – Presort



As scan rates have improved and the Seamless Presort validations have become more refined additional presort errors have been identified.

- ▶ Presort accuracy over 99% for all mailers.
- ▶ Seamless Acceptance results compared with pilot trays run on MERLIN show this process matches MERLIN results with an accuracy of 99%





Minimum Piece Count per ZIP Group

Electronic piece documentation and piece counts from scan data were used to verify mail makeup.

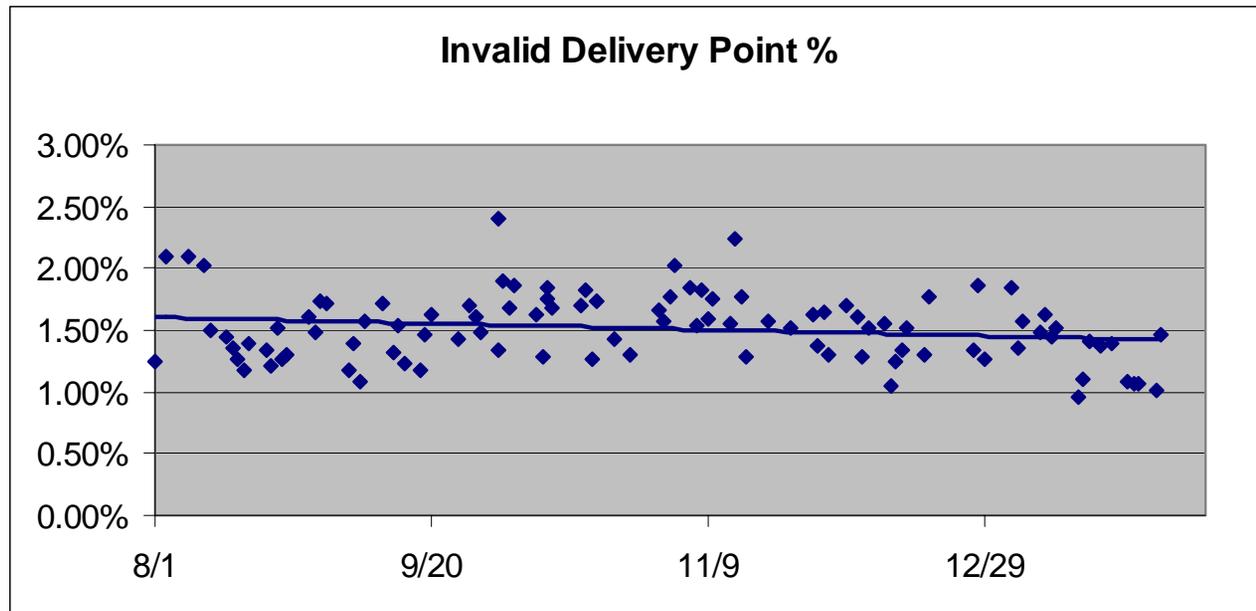
- ▶ Documented piece counts by POSTNET were used to identify ZIP groups that do not have the minimum 150 pieces per tray
- ▶ Piece counts by ZIP group determined from MPE scans were compared to documentation
- ▶ Recent mailings have eliminated trays that do not meet preparation requirements

Address Validity



Comparison of the delivery point of the piece documentation is compared to Delivery Point File

- ▶ Delivery Point Validity
 - Average 1.5% to 2% invalid POSTNET

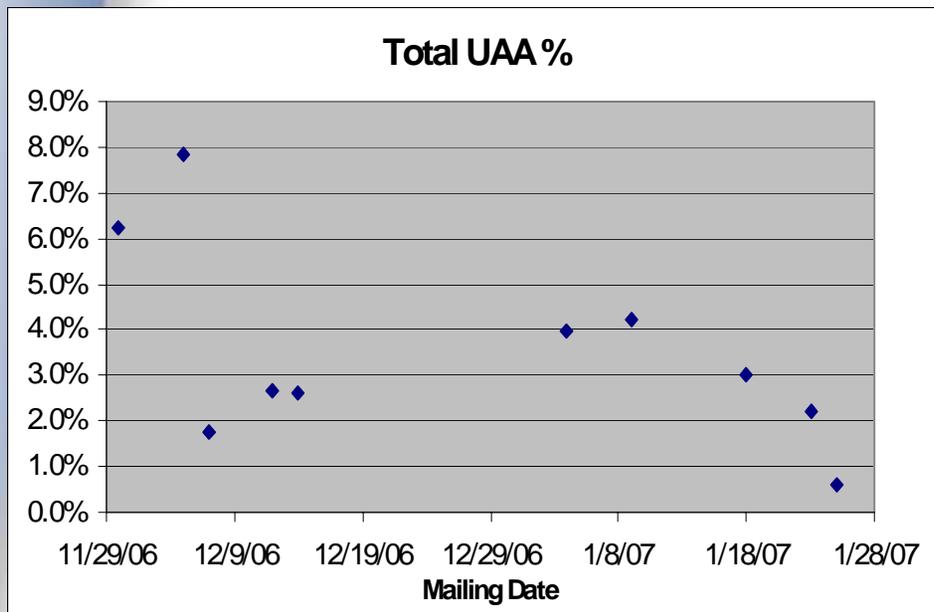


Address Hygiene



The ACS service identifies compliance with move update requirements and undeliverable-as-addressed (UAA) mail.

▶ Pieces with an updated ZIP portion of the IMB are identified



– Updates are associated to a specific change of address record

– Determine when the mailing list was last updated

– Distinguish between Forwardable COA and Returned Mailpieces



FastForward Issues

Analysis of ACS results have brought forward issues with the FastForward system

- ▶ Only uses 13 months of data (ACS uses 18 months)
- ▶ Does not include temporary Change of Address records
- ▶ Algorithms used for COA matching in FastForward are more stringent than for ACS
- ▶ Slow match resolution creates numerous matches for which the updated POSTNET is not sprayed
- ▶ Limited mechanism for reporting FastForward changes for use in updating lists (i.e. FastForward Move Update Notification (MUN))



Future: Permit-RP

The Permit or Meter Imprint (non-IBI meter imprints) will be read using optical character recognition and the information will be provided to Seamless Acceptance.

- ▶ Permit number and ZIP, or
- ▶ Permit number and city name, or
- ▶ Company name
- ▶ Meter postage printed on piece

Future: Mailpiece Dimensions



Mailpiece length and width will be measured to verify compliance with mailpiece design requirements

- ▶ Existing WFOV cameras on USPS processing equipment can provide width and length measurements for each mailpiece.
- ▶ Those dimensions will be used to ensure that letters conform to USPS mailpiece design standards.

BEI in Barcodes



- ▶ Intelligent Container Barcode
- ▶ Intelligent Tray Barcode
- ▶ Intelligent Mail Barcode

Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container Barcode	App ID 2N		T ID 1N	Business Entity ID 6N						Adjust Field 3N			Unique Serial Number 9N									21 Digits									
Tray Barcode	ZIP 3 or 5 digit N			CIN 3N			L sr 1N	Business Entity ID 6N						Adjust Field 3N			Unique Serial No. 5N			T ID 1N	24 Digits										
Intelligent Mail Barcode	T ID 2N		Spcl Srvs 3N		Business Entity ID 6N						Adjust Field 3N			Unique Serial No. 6N			Routing ZIP 0,5,9,11 digit N														

- Barcode "type" indicator
- Used to identify services requested by the customer (i.e. ACS, Confirm, PostalOne!; Confirm/ACS)
- Used to identify source "Business Entity"
- Adjustable field
- Used to uniquely identify a container, tray, sack, or piece
- Used to route a tray, sack, or piece
- Identifies a source system used to create label



BEI Standards

- ▶ 6-digit BEIs will begin with '1' through '8'.
- ▶ 9-digit BEIs will begin with '9'.*
- ▶ CONFIRM BEIs will begin with '0'.
- ▶ 6-digit BEI's are being reserved from the 9-digit schema to accommodate future growth
- ▶ To accommodate the transition of package mailers that are currently using a 9 digit DUNS number, all existing AMDC DUNS numbers will be reserved, and their 6 digit subsets.

* Today, all 9-digit BEIs will begin with '9.' The distribution schema is being constructed assuming that this may change at some point in the future.



Factors in the Calculations for BEIs

- ▶ BEIs are assigned to mailing sites rather than companies.
- ▶ Mailing sites will need to meet a predetermined threshold of pieces per quarter in order to qualify for 6-digit BEIs.
- ▶ Barcodes using a BEI should remain unique for 45 days.
- ▶ A site may request more than 1 BEI

BEIs Per Mailer



- ▶ **6-Digit BEI**
 - Mailers sending more than 10 million pieces per quarter per site
 - May request no more than 20 BEIs per site
- ▶ **9-digit BEI**
 - May request no more than 15 BEIs per site

BEI Distribution Conditions



- ▶ If you are participating in a service that takes advantage of Intelligent Mail products such as Confirm, OneCode ACS, Confirmation Services, eVS, you obtain your BEI through the Service Help Desk
- ▶ All others who need to apply BEI's on one or more of the Intelligent Mail barcodes (Piece, Tray, Container) will obtain their BEI from the PostalOne! Help Desk.

Postage Assessment – Proposed Principles



Assessment approach will be validated/revised as we pilot.

- All mail and corresponding manifests within a 24 hour period will be treated as a single mailing
- Adjustments will be calculated for each mailing but postage will be assessed on a monthly basis
- Adjudication Period
- Each facility will be treated as a separate mailing entity
- Mailers can review status of each mailing as data is received
- Statistical sampling used to establish tolerances for each assessment category
- Adjustments can be limited to specific mail within a mailing (i.e. by machine, by mail owner)

Assessment – Barcode Quality



Automation compatibility will be determined using operational scan rate.

- ▶ **Operational Scan Rate = Piece Scan Count/ Manifest Piece Count**
 - The machine End of Run (EOR) read rate will be used to adjust operational scan rate
 - Calculated using the first scan of the piece
- ▶ **Non-compliant pieces will be assessed at Nonautomation Presort Letter rate**
- ▶ **Tolerance to be determined**
- ▶ **Can be evaluated at a machine level (mail preparer machine)**

Assessment – Presort Errors



Postage will be adjusted for individual presort errors identified in the mailing.

- ▶ $\text{Presort Error Rate} = \frac{\text{Pieces with Presort Errors}}{\text{Manifest Presort Piece Count}}$
- ▶ Pieces with presort errors will be charged at Automation Mixed AADC Presort rate
- ▶ Tolerance to be determined
- ▶ Mailings with a poor Operational Scan Rate will have the Presort Error Rate applied to the portion of the mailing that was not scanned

Assessment – Tray Makeup



Tray makeup will be evaluated at the ZIP Code group level (logical tray).

- ▶ ZIP Code groups with less than 150 pieces will be treated as short prepared
 - Deemed as presort errors
- ▶ Tolerance to be determined
- ▶ Tray weights from PostalOne! TMS will also be used to evaluate tray makeup
 - Average piece weight calculated across mailing
 - Tray weight used to identify multiple overflow trays per ZIP Code group
 - Not used for assessment but will factor into manual verification frequency

Assessment – Move Update



Compliance with Move Update requirements will be evaluated using Address Change Service data.

- ▶ Undeliverable as Addressed (UAA) Rate =
Address Changes Piece Count / Manifest Piece Count
- ▶ Age of Change of Address (COA) pieces used to determine list update frequency
- ▶ Non-compliant mailings lose automation discount
- ▶ Tolerances to be determined
- ▶ Can be evaluated at a mail owner level

Assessment – Address Quality



Address quality will be evaluated by comparing the applied POSTNETs to the Delivery Point File (DPF).

- ▶ Invalid POSTNET Rate = Pieces with POSTNETs not on DPF / Manifested Piece Count
- ▶ Non-compliant mailings lose automation discount
- ▶ Compared to Delivery Point File for month of CASS certification
- ▶ Tolerances to be determined

Assessment – Unmanifested Pieces



Unmanifested pieces are identified when scans are received that do not appear on any manifest.

- ▶ Unmanifested Piece Rate = $\text{Unmanifested Piece Count} / \text{Manifest Piece Count for Month}$
- ▶ Assessed to the BEI on the piece
- ▶ Unmanifested pieces will be assessed at the Single-Piece First Class rate
 - Pilot will determine an approach for assessing postage metered pieces
- ▶ No tolerances for this category
- ▶ Mailings with a poor Operational Scan Rate will have the Unmanifested Piece Rate applied to the portion of the mailing that was not scanned.

Feedback Options



There are various methods for providing Seamless Acceptance data.

- ▶ Online Reports through *PostalOne!*
- ▶ Data Files (push or pull)
 - Scheduled or On-Demand
- ▶ Real Time Notifications
 - Web Service Messaging
 - Email alerts

Next Steps



- ▶ Finalize feedback approach
- ▶ Sunset Workgroup
- ▶ Implementation Workgroup
 - Pilot postage assessment approach
 - Determine appropriate tolerances for each verification element
 - Expand pilot to other classes of mail

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

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April 30, 2007