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

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│ MAILING ONLINE SERVICE   │
└─────────────────────────────┘

Docket No. MC98–1

REVISED RESPONSES OF UNITED STATES POSTAL SERVICE
WITNESS STIREWALT TO INTERROGATORIES OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS-T3—40, 42, 44, 45, 47, 48, AND 49)

The United States Postal Service hereby provides the revised responses of
witness Stirewalt to the following interrogatories of the Office of the Consumer
Advocate: OCA/USPS-T3—40, 42, 44, 45, 47, 48, and 49. The revisions,
summarized in the attached sheet, are minor. The original responses were filed on
October 13, 1998.

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

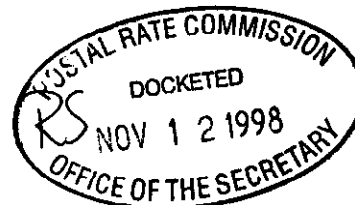Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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November 12, 1998

Summary of Revisions to Interrogatory Responses

OCA/USPS-T3–40(a)
Insert "use to" between "may" and "submit" on second line.

OCA/USPS-T3–42(c)
Delete "," in fifth line.
Insert "a" between "include" and "calculation" on second to last line.

OCA/USPS-T3–44(c)
Delete last "to" in second to last line.

OCA/USPS-T3–45(h)
Change "sum" to "product" in first line.

OCA/USPS-T3–47
Part (b):   Insert "week" after "six-day" in second to last line.

Part (d):   Change "3" to "5" in second to last line.

Part (f):   Change "day's" to "days'" in last line.

Part (g):   Delete "number of" on first line.
Insert "is" between "there" and "no" on fourth line.
Change "from" to "for" on fourth line.
Delete "will" on sixth and ninth lines.

Part (i):   Insert closing quote mark after "(bytes)" on third line.
Change "transaction" to "transactions" on fifth line.
Delete "will" on sixth and ninth lines.
Delete entire sentence starting "All transactions" on sixth line.

Part (j):   Delete "is" on fourth line.
Delete "there" on fifth line.
Delete "will" on seventh line.

OCA/USPS-T3–48
Part (c):   Delete "number of" on first line.
Change "requirements" to "requirement" on second line.

Part (e):   Delete "number of" on first line.
Change "requirements" to "requirement" on second line.

OCA/USPS-T3–49
Delete bracketed material on last line of response.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS STIREWALT
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE
REVISED NOVEMBER 12, 1998

OCA/USPS-T3-40. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 7, under the heading, "PROCESSING CENTER - NETPOST COMMAND CENTER SERVER."

a. Please confirm that the figure, 10,063.76, represents the number of "Incoming bytes Per Second During Peak Hours" in PDF format. If you do not confirm, please explain.

b. Please confirm that the figure, 1,516,231, "Bytes Processed Per Second During Peak Hours," is in Postscript format. If you do not confirm, please explain.

c. Please confirm that the figure referred to in part (a) of this interrogatory is not used in the calculation of the figure, 1,516,231, "Bytes Processed Per Second During Peak Hours." If you do not confirm, please explain.

RESPONSE

a. Not Confirmed. The file format is assumed to be one of several file formats that Mailing Online users may use to submit documents. The figure "Number of Bytes Per Page Word Processing/Desk Top Publishing" is an estimate of the user's source file. This figure is used to calculate "Incoming bytes Per Second During Peak Hours."

b. Confirmed.

c. Confirmed.

OCA/USPS-T3-42. Please refer to USPS-LR-1/MC98-1, Attachment 1, at page 7.

a.   Please confirm that the "Number of Bytes Per Mailing Piece Transaction" should be 98,304 (30,720 * 3.2 Number of pages per Document). If you do not confirm, please explain.

b.   Please confirm that the figure, 1,516,231, "Bytes Processed Per Second During Peak Hours," should be 4,851,938 (98,304 * 49.35647 Mail Merge Transactions Per Second During Peak Hours). If you do not confirm, please explain.

c.   Please confirm that the figure, 1,516,231, "Bytes Processed Per Second During Peak Hours," should also include the calculation "Number of addresses Per Mailing List" times the "Number of bytes per address." If you do not confirm, please explain. If you do confirm, please provide the number of bytes per address.

RESPONSE

a. Confirmed.

b. Confirmed.

c. Not Confirmed. In this section of the analysis, "Bytes Processed Per Second During Peak Hours" is an estimate of the processing required to apply a number of actions to documents submitted by users, including the conversion of source files, in whatever format they are submitted, to Postscript format. The figure "Bytes Processed Per Second During Peak Hours" is included to indicate the maximum number of bytes these documents represent over time, which in turn would indicate what processing capability is required. Since one of the actions is to convert the source files to Postscript format, and my estimate for Postscript format per page (30720) is greater than my estimate for source documents per page (5020), I used the Postscript figure. Mailing List data is also processed, but presumably at a different step than the step that converts the source document to Postscript format; hence I did not include calculation for mailing list data in the figure "Bytes Processed Per Second During Peak Hours".

OCA/USPS-T3-44. Please refer to USPS-LR-1/MC98-1, Attachment 1, at page 7, in the column "YR 1999 Estimate."

a. Please confirm that the figure, 30,720, is expressed in units of "bytes/page (Postscript)." If you do not confirm, please show the derivation of the proper units.

b. Please confirm that the figure, 49, is expressed in units of "(pieces/business day)/sec." If you do not confirm, please show the derivation of the proper units.

c. Please confirm that the figure, 1,516,231, is expressed in units of "((pieces/business day)/sec. * (bytes/page (Postscript)))." Please confirm that the correct units should be "(bytes (Postscript)/business day)/sec." If you do not confirm, please show the derivation of the proper units.

d. Please confirm that the formula used to calculate the figure 1,516,231 should contain the multiplicative term 3.2 pages per piece. If you do not confirm, please explain.

RESPONSE

a. Confirmed that the figure 30,720 represents number of bytes per page in Postscript format.

b. Confirmed that the figure 49 represents the number of mail merge transactions per second during the daily peak usage period and that transactions here corresponds to pieces.

c. Not confirmed. The process described here is the conversion of mail merge documents from a source document to individual electronic pieces, merging of addressee specific information into each mail piece, and then converting each electronic mail piece to Postscript format.

    To calculate a peak processing volume for the processor that performs these functions, the number of mail merge transaction per second during the daily peak usage period is derived by multiplying incoming documents per second during the peak period by the number of addressees per document (each piece in mail merge job is assumed to have one addressee). This figure is then multiplied by the average size of a document in Postscript format.

d. Confirmed.

OCA/USPS-T3-45. Please refer to USPS-LR-1/MC98-1, Attachment 1, at page 7 and 8, in the column "YR 1999 Estimate."

a. Please confirm that the figure, 10, is expressed in units of "print sites." If you do not confirm, please show the derivation of the proper units.

b. Please confirm that the figure, 295,665,000, is expressed in units of "pieces/year." If you do not confirm, please show the derivation of the proper units.

c. Please confirm that the figure, 947,644, is expressed in units of "pieces/business day." If you do not confirm, please show the derivation of the proper units.

d. Please confirm that the figure, 0.5, is a pure number with no associated units. If you do not confirm, please show the derivation of the proper units.

e. Please confirm that the second figure, 0.5, is a pure number with no associated units. If you do not confirm, please show the derivation of the proper units.

f. Please confirm that the figure, 0.15, is a pure number with no associated units. If you do not confirm, please show the derivation of the proper units.

g. Please confirm that the figure, 1.15721E+15, is expressed in units of "(pieces/business day) * (bytes/page (Postscript)) * (sessions/business day) * (bytes/page (Postscript))." Please confirm that the proper units are "bytes/business day." If you do not confirm, please show the derivation of the proper units.

h. Please confirm that the figure, 8.67905E+14, is expressed in units of "(pieces/business day) * (bytes/page (Postscript)) * (sessions/business day) * (bytes/page (Postscript))." Please confirm that the proper units are "bytes/business day." If you do not confirm, please show the derivation of the proper units.

i. Please confirm that the figure, 6,027,115,280, is expressed in units of "(pieces/business day) * (bytes/page (Postscript)) * (sessions/business day) * (bytes/page (Postscript))/(seconds/print site)." Please confirm that the proper units are "bytes/business day/sec./print site." If you do not confirm, please show the derivation of the proper units.

RESPONSE

a. Confirmed that the figure 10 represents print sites as indicated in Attachment 1: "Number of Printers".

b. Confirmed that the figure 295,665,000 represent number of mail pieces per year as indicated in Attachment 1: "Number of Mail Pieces Per Business Day".

c. Confirmed that the figure 947,644 represents the number of mail pieces per business day as indicated in Attachment 1: "Number of Mail Pieces per Business Day".

d. Not confirmed. The figure 0.5 represents the portion of the total number of jobs submitted by users that require the merging with addressee specific information within each mail piece, as indicated in Attachment 1: "Percentage mail merge jobs".

e. Not confirmed. The figure 0.5 represents the portion of the total number of jobs submitted by users that do not require the merging with addressee specific information within each mail piece, as indicated in Attachment 1: "Percentage non mail merge jobs".

f. Confirmed.

g. Not confirmed. Refer to my response to OCA/USPS-T3-35(c) for a full description of the calculation of "Number of Bytes per Business Day" and a corrected figure (6,988,549,205).

h. Not confirmed. This figure is the product of "Number of Bytes Per Business Day" and "Percentage usage during daily peak period". Refer to my response to OCA/USPS-T3-35(c) for a corrected figure for "Number of bytes during peak period" (5,241,411,904).

i. Not confirmed This figure represents the number of bytes per second during the peak usage period to each print site. To derive this, "Number of byte per during the period is divided by the total number of seconds during the peak period (14400), then divided again by the number of print sites (10). Refer to my response to OCA/USPS-T3-35(c) for a corrected figure for "Peak Usage Throughput per second to each Print Site" (36398.69377).

OCA/USPS-T3-47.   Please refer to the column "YR 1999 Estimate," section
"PROCESSING CENTER—DATA STORAGE, Financial Transactions" at Tr. 3/722.

a.   Please confirm that the number, 230.04, is expressed in units of
"sessions/business day." If you do not confirm, please show the derivation of the
correct units. Please explain why this same number is variously identified as
"Customer sessions per business day" at Tr. 3/720, "Total Transactions Per Day"
at Tr. 3/722, and "Total Documents Per Day" at Tr. 3/722.

b.   Please confirm that the number, 1,150, is expressed in units of "sessions/week."
If you do not confirm, please show the derivation of the correct units. Please
confirm that the formula for computing this number is (230.04 sessions/business
day) * (5 business days/week). If you do not confirm, please provide the correct
formula. Please confirm that when originally calculating the number 230.04 you
assumed that there are 6 business days per week ("6 day work week assumed,"
Tr. 3/720). If you do not confirm, please explain. Please reconcile the 6-day
week used at page 720 with the 5-day week used at page 722.

c.   Please confirm that the number, 59,810, is expressed in units of "sessions/year."
If you do not confirm, please show the derivation of the correct units. Please
confirm that in computing this number, you have assumed 260 business days per
year. If you do not confirm, please explain. Please confirm that when originally
calculating the number 230.04 you assumed that there are 312 business days
per year ("Calculated (sessions per year / 312 business days in a year, . . .)" Tr.
3/720). Please confirm that "sessions/year" can be calculated directly from page
720 as (5981 users) * (12 sessions/user/year) = 71,772 sessions/year. See Tr.
4/858. If you do not confirm, please explain.

d.   Please confirm that the number, 221, is expressed in units of "bytes/session." If
you do not confirm, please show the derivation of the correct units. The number,
221, is sourced to "Attachment 5: Sources." Please provide a copy of or citation
to "Attachment 5: Sources."

e.   Please confirm that the number, 1, is expressed in units of "days." If you do not
confirm, please show the derivation of the correct units.

f.   Please confirm that the number, 180, is expressed in units of "days." If you do
not confirm, please show the derivation of the correct units. Please confirm that
during the first half of 1999, there will not be 180 days' worth of accumulated data
requiring backup storage. If you do not confirm, please explain.

g.   Please confirm that the number, 1460, is expressed in units of "days." If you do
not confirm, please show the derivation of the correct units. Please confirm that
there will be fewer than 1460 days in 1999. Please confirm that this number
should be 365—i.e., there is no carryover of data from prior years into 1999.
Please confirm that for 2000, 2001, 2002, and 2003, this number should be 731,
1096, 1460, and 1460, respectively. If you do not confirm, please explain.

h.   Please confirm that the number, 7625.78, is expressed in units of "bytes." If you
do not confirm, please show the derivation of the correct units. Please confirm
that this daily on-line storage requirement will actually vary widely in 1999
depending on the actual number of daily customer sessions. If you do not
confirm, please explain.

i.   Please confirm that the number, 1,372,639.50, is expressed in units of "bytes." If you do not confirm, please show the derivation of the correct units. Please confirm that this backup storage requirement will not be needed until six months into 1999. If you do not confirm, please explain.

j.   Please confirm that the number, 11,133,631.50, is expressed in units of "bytes." If you do not confirm, please show the derivation of the correct units. Please confirm that the maximum archive storage requirement for 1999 is actually one-fourth of this (or 2,783,407.88 bytes), and that this amount of storage will not be needed until the last day of 1999. If you do not confirm, please explain.

RESPONSE

a. Confirmed that the figure 230.04 represents total user transactions per day. During each user session a user is assumed to transact once with Mailing Online, i.e. submit one document, a corresponding mailing list, and pay for the mailing. There is therefore a one-to-one correspondence between the number of user sessions, transactions, and documents.

b. Confirmed that the figure 1,150 represents the total number of transactions per week as indicated in Attachment 1: "Total Transactions Per Week". Confirmed that the formula for computing this number is (230.04 sessions/business day) * (5 business days/week). The 6-day week used at page 720 conflicts with the 5-day week used at page 722 and can not be reconciled. For consistency, a six-day week should be used.

c. Confirmed that the figure 59,810 represents the total number of transactions per year as indicated in Attachment 1; "Total Transactions Per Year". Confirmed that when originally calculating the number 230.04 I assumed that there are 312 business days per year. Confirmed that "sessions/year" can be calculated directly from page 720 as (5981 users) * (12 sessions/user/year) = 71,772 sessions/year.

d. Confirmed that 221 is the number of bytes for each financial transaction as indicated in Attachment 1: "Bytes Per Transaction". The reference to "Attachment 5: Sources" should be "Attachment 3: Sources" of my testimony.

e. Confirmed that the figure 1 represents the on-line storage transaction duration requirements in days as indicated in Attachment 1: "Transaction On-line Storage Duration Requirement (days).

f. Confirmed that the figure 180 represents the backup requirement in days as
    indicated in Attachment 1; "transaction On-line Storage Duration Requirement days).
    Confirmed that there will not be 180 days' worth of accumulated data requiring
    backup storage until such time as the accumulated transactions from the 1998
    resulting from the operations and Market test, along with 1999 transactions during
    the experiment phase, together equal 180 days' worth of accumulated transactions.

g. Confirmed that the figure 1460 equals the total transaction archive data requirement
    in days as indicated in Attachment 1: "Transaction Archive Data Requirement
    (bytes)". Confirmed that there are not 1460 days in 1999. Confirmed that the number
    should be 365 only if there is no carryover from 1998 for the 1998 operations test or
    the Market test during 1998. In practice, all transactions from 1998 are subject to the
    same archive requirement. Confirmed that for 2000, 2001, 2002, and 2003, this
    number should be 731, 1096, 1460, and 1460, respectively only if no carryover is
    assumed from the 1998 operations test or the Market test during 1998. In practice,
    all transaction from 1998 are subject to the same archive requirement. The actual
    numbers for the years 1999, 2000, 2001, 2002, and 2003 would be greater than 365,
    731, 1096, 1460, and 1460, respectively.

h. Confirmed that the number 7625.78 represents the total number of bytes required to
    store financial transactions on-line, as indicated in Attachment 1: "Transaction On-
    line Data Requirement (bytes). Confirmed that the on-line storage requirements
    could vary if the actual number of user customer varies correspondingly. There was
    no data available at the time I performed my analysis to lead me to quantify any
    such variance in usage.

i. Confirmed that the number 1,372,639.50 represents the total number of bytes
    required to store backup copies of financial transactions, as indicated in Attachment
    1: "Transaction Backup Data Requirement (bytes)". Confirmed that 1,372,639.50
    bytes will not be required until six months into 1999 only if no carryover is assumed
    from the 1998 operations test or Market test during 1998. In practice, all transactions
    from 1998 are subject to the same archive requirement. Given the additional 1998

operations and market test transactions, the 1,372,639.50 bytes in storage capacity would actually be required some time before the end of the first six months of 1999.

j. Confirmed that the figure 11,133,631.50 represents the transaction archive requirement in bytes as indicated in Attachment 1: "Transaction Archive Data Requirement (bytes)". Confirmed that the maximum archive storage requirement for 1999 would be one-fourth of this (or 2,783,407.88 bytes), and that this amount of storage will not be needed until the last day of 1999 only if no carryover is assumed from the 1998 operations test or Market test during 1998. In practice, all transactions from 1998 are subject to the same archive requirement. The actual requirement would therefore be greater than 2,783,407.88. Stated another way, 2,783,407.88 bytes would be required some time before the end of 1999.

OCA/USPS-T3-48. Please refer to USPS-LR-1/MC98-1, Attachment 1, at page 8 and 9, in the column "YR 1999 Estimate."

a.   Please confirm that the figure, 5,196,568.85, is expressed in units of "(bytes/page (PDF)) * sessions." Please confirm that the correct units should be "bytes (PDF)." If you do not confirm, please show the derivation of the proper units.

b.   Please confirm that the formula used to calculate the figure 5,196,568.85 should contain the multiplicative terms 3.2 pages per piece, 4,120 pieces per session, and 0.5 mail merge factor yielding 34,251,653,077 "bytes (PDF)." If you do not confirm, please explain.

c.   Please confirm that the figure, 15,589,706.54, is expressed in units of "(bytes/page (PDF)) * sessions." Please confirm that the correct units should be "bytes (PDF)." If you do not confirm, please show the derivation of the proper units.

d.   Please confirm that the formula used to calculate the figure 15,589,706.54 should contain the multiplicative terms 3.2 pages per piece, 4,120 pieces per session, and 0.5 mail merge factor yielding 102,754,959,230.77 "bytes (PDF)." If you do not confirm, please explain.

e.   Please confirm that the figure, 20,786,275.38, is expressed in units of "(bytes/page (PDF)) * sessions." Please confirm that the correct units should be "bytes (PDF)." If you do not confirm, please show the derivation of the proper units.

f.   Please confirm that the formula used to calculate the figure 20,786,275.38 should contain the multiplicative terms 3.2 pages per piece, 4,120 pieces per session, and 0.5 mail merge factor yielding 137,006,612,307.69 "bytes (PDF)." If you do not confirm, please explain.

RESPONSE

a. Confirmed that the figure 5,196,568.85 represents the requirements in bytes for storing PDF formatted data as indicated in Attachment 1: "PDF On-line Data Requirement (bytes)".

b. Confirmed that the figure 5,196,568.85 should contain the multiplicative term 3.2 pages per document. Not confirmed that the figure should contain the multiplicative term 4,120 pieces per session. Not confirmed that the figure should contain the multiplicative term 0.5 mail merge factor. This figure represent all documents submitted to Mailing Online, mail merge and non-mail merge, without breakout into electronic individual mail pieces. Applying the multiplicative term 3.2 pages per document yields 16,629,020.31 in PDF format.

c. Confirmed that the figure 15,589,706.54 represents the total backup storage requirement in bytes in PDF format as indicated in Attachment 1: "PDF File Backup Data Requirement (bytes).

d. Confirmed that the figure 15,589,706.54 should contain the multiplicative term 3.2 pages per document. Not confirmed that the figure should contain the multiplicative term 4,120 pieces per session. Not confirmed that the figure should contain the multiplicative term 0.5 mail merge factor. Applying the multiplicative term 3.2 pages per document yields 49,887,060.92 in PDF format.

e. Confirmed that the figure 20,786,275.38 represents the total backup storage requirement in bytes in PDF format as indicated in Attachment 1: "PDF File Archive Data Requirement (bytes).

f. Confirmed that the figure 20,786,275.38 should contain the multiplicative term 3.2 pages per document. Not confirmed that the figure should contain the multiplicative term 4,120 pieces per session. Not confirmed that the figure should contain the multiplicative term 0.5 mail merge factor. Applying the multiplicative term 3.2 pages per document yields 66,516,081.23 in PDF format.

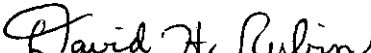OCA/USPS-T3-49. Please refer to USPS-LR-1/MC98-1, Attachment 1, at page 9, in the column "YR 1999 Estimate."

a. Please confirm that the figure, 126,551,145, is expressed in units of "bytes/page (Postscript) * pieces/session." Please confirm that the correct units should be "bytes (Postscript)/session." If you do not confirm, please show the derivation of the proper units.

b. Please confirm that the formula used to calculate the figure 126,551,145 should contain the multiplicative term 3.2 pages per piece yielding 404,963,664.9 "bytes (Postscript)/session." If you do not confirm, please explain.

c. Please confirm that the figure, 65,501,169,231, is expressed in units of "((bytes/page (Postscript)) * pieces." Please confirm that the correct units should be "bytes (Postscript)." If you do not confirm, please show the derivation of the proper units.

d. Please confirm that the formula used to calculate the figure 65,501,169,231 should contain the multiplicative term 3.2 pages per piece yielding 2.09604E+11 "bytes (Postscript)." If you do not confirm, please explain.

e. Please confirm that the figure, 1.96504E+11, is expressed in units of "((bytes/page (Postscript)) * pieces." Please confirm that the correct units should be "bytes (Postscript)." If you do not confirm, please show the derivation of the proper units.

f. Please confirm that the formula used to calculate the figure 1.96504E+11 should contain the multiplicative term 3.2 pages per piece yielding 6.28811E+11 "bytes (Postscript)." If you do not confirm, please explain.

g. Please confirm that the figure, 2.62005E+11, is expressed in units of "((bytes/page (Postscript)) * pieces." Please confirm that the correct units should be "bytes (Postscript)." If you do not confirm, please show the derivation of the proper units.

h. Please confirm that the formula used to calculate the figure 2.62005E+11 should contain the multiplicative term 3.2 pages per piece yielding 8.38415E+11 "bytes (Postscript)." If you do not confirm, please explain.

RESPONSE

a. - h. Refer to my response to OCA/USPS-T3-35(a). I have verified with the Mailing Online developers that there is no requirement to store files in Postscript format. The two Postscript file sections from pages 9 and 10 of Attachment 1 to USPS-LR-1/MC98-1 no longer apply.

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.

David H. Rubin

475 L'Enfant Plaza West, S.W.
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November 12, 1998