

A NEW TYPE OF “RETURN TO SENDER” ENDORSEMENT CREATED BY INK JET PRINTER TECHNOLOGY

PART I: TEXAS P&DCs

By Michael M. Ludeman

INTRODUCTION

Shortly after the beginning of their fiscal year 2003 (October 1, 2002), the United States Postal Service (USPS) introduced a program in Texas to facilitate the mark-up endorsement and processing of first class letter mail which was being returned to the sender because of some type of addressing error. The mail processed by this program was distinctive in that the Return-to-Sender endorsement was applied to the envelope using the ink jet printer module on the automated mail processing equipment, rather than by the previous methods which relied on rubber handstamps with a “pointing hand” or special “service marking” machine cancels. An example of a letter with this ink jet endorsement is shown in **Figure 1**.

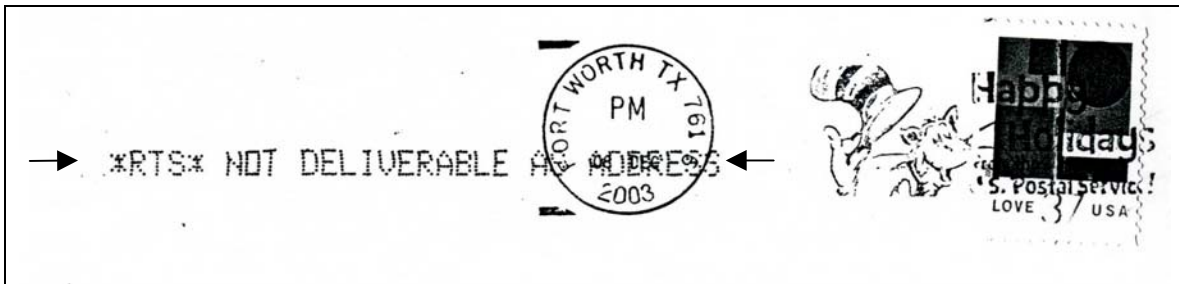


Figure 1: A “Return-to-Sender” endorsement applied by ink jet printer in red ink. “RTS” is the abbreviation for “Return-to-Sender”. The full endorsement, bracketed with arrows to show the line of spray marking, reads, “*RTS* NOT DELIVERABLE AS ADDRESS.” See back cover for full cover view.

I first became aware of these ink jet endorsement markings in the fall of 2003 when I had several misaddressed letters returned. During the following year, I accumulated over fifty pieces of first class mail with similar markings. My curiosity aroused, I began a series of investigations to learn more about these markings, where and how they were applied, and the program responsible for them.

The formal name of the USPS program which creates these endorsements is the “First Class Letter Mail Automated Endorsement Return-To-Sender Program”, which I will shorten simply to “RTS Program” in the balance of this article. The primary objective of this RTS Program is to simplify and speed up the processing of this type of letter mail through the use of the automated equipment located at the Processing & Distribution Centers (P&DCs).

The organization of this article is as follows: The initial section will provide a historical background on the evolution of the basic types of markings encountered on RTS mail, and some of the relevant postal laws and regulations behind the markings. The second section describes the general operation of the RTS Program. The next section discusses the implementation of this RTS Program in Texas. The final two sections describe the general characteristics of these RTS endorsements and a variety of examples encountered on RTS mail addressed to Texas locations and processed at P&DCs in Texas.

HISTORICAL BACKGROUND OF RTS ENDORSEMENTS

One interesting way to follow the development of a process or procedure used by the United States Post Office Department (USPOD) is through the relevant laws enacted by the Congress and regulations prepared by the USPOD. The USPOD regularly published compilations of these “Postal Laws & Regulations” (P&LR) for distribution to postmasters beginning in 1796, with new editions prepared every five or ten years. Many of these volumes between 1832 and 1866 are readily available in reprint form, and those published between 1887 and 1948 are fairly easy to find in the original edition. The two editions published

in 1873 and 1879 have proved to be fairly elusive (to the author, at least) and expensive when located. The present section is drawn primarily from these sources.

The postal service has a long tradition of returning any undeliverable mail items to the sender when it is possible. In the Act of Congress dated March 3, 1825, section 26, we find that postmasters were instructed to advertise, or publish lists, which identified all letters or newspapers which they had received at their post office, but not called for, and then when such letters remained after three months:

“. . . and to send such of the said letters as then remain on hand, as dead letters, to the General Post Office, where the same shall be opened and inspected; and if any valuable papers, or matters of consequence, shall be found therein, it shall be the duty of the Postmaster General to return such letter to the writer thereof, or cause a descriptive list thereof to be inserted in one or more of the newspapers published at the place most convenient to the supposed residence of the owner, if within the United States; and such letter, and the contents, shall be preserved to be delivered to the person to whom the same shall be addressed, upon payment of postage, and the expense of publication.”

By the 1850's, two categories of returned letters had been established. In the postal regulations published in 1857, sections 152 through 165, we find the following instructions:

“Dead letters are such that have been advertised and remain in hand three months or longer.”

“Every dead letter must bear on the sealed side the stamp or postmark of the post office by which it is returned and the date of the return to the department [Dead Letter Office].”

“When a letter is refused by the addressee, the word ‘REFUSED’ should be at once plainly written on it and the letter put with those returned at the end of the month [to the Dead Letter Office].”

“Refused letters are not advertised.”

And while not explicitly called for in this edition of the postal regulations, we know that most advertised letters carried a handwritten or handstamp marking “ADVERTISED.”

These procedures changed in 1860 when Congress enacted “An Act in Relation to the return of undelivered letters in the Post Office” on April 3, 1860. This Act directed:

“That when any person shall endorse on any letter, his or her name and place of residence, as writer thereof, the same after remaining uncalled for at the post office to which it is directed thirty days, or the time that the writer shall direct, shall be returned by mail to said writer; and no such letters shall be advertised, nor shall the same be treated as dead letters, until returned to the post office of the writer and there remain uncalled for, for one quarter.”

No instructions relative to the markings of these letters with the writer's return address were provided with this Act, but in the instructions which accompanied the Act of March 3, 1863, “An Act to Amend the Laws relating to the Post Office Department”, section 28, which can be found in [Appleton's Postal Guide of 1863](#), we find the following:

“The dates of receiving such letters must be carefully written or stamped thereon them, and also, the dates of remailing them to the writer; and when remailed the words “RETURNED TO WRITER” shall be plainly written or stamped across the face of each, and the original address erased.”

“A regular account must be kept of letters returned to writers under the law (section 28) showing the name and address of the writer, to whom directed, the date of receipt, and the date of return. A similar account should be kept of such letters received from other offices. Send copies of these accounts quarterly to the ‘Third Assistant Postmaster General’.”

It is not certain what changes may have occurred in these instructions during the following twenty years, as the relevant editions of the PL&Rs were not available. However, in the PL&R for 1887, section 603, we find the following:

“REASON FOR NON DELIVERY TO BE SHOWN ON MATTER. Upon every undelivered article of mail matter must appear the reason for nondelivery, such as REFUSED, REMOVED, FIRM DISSOLVED, DECEASED, IN DISPUTE, etc., as such indication is often of value to the writer. When no other reason can be ascertained, the matter will be endorsed UNCLAIMED, care being taken on the endorsing or stamping not to deface or obscure the original address or postmark.”

Further, in the same PL&R, section 595, reference was made regarding the additional usage of the endorsement “RETURN TO WRITER”, but only with regard for its use on postal cards. However, by the next edition of the PL&R, published in 1893, section 557.1, we find the following instruction for all such unclaimed matter added to the above text in section 603 in the PL&R for 1887:

“. . . and must also, in every instance be indorsed ‘RETURNED TO WRITER’, and bear the postmark of the office from which it is returned.”

The omission from the PL&R for 1887 appears to have been a simple oversight, and sections similar to this one occur in every subsequent edition of the PL&Rs through 1948. Similar guidelines appear in contemporary USPS publications. The most recent guidelines appear in the Domestic Mail Manual (DMM), section 1.4.1.

The use of handstamps for the “RETURNED TO WRITER” endorsements began shortly after the change in regulations in 1860, as did the concept of the “pointing hand.” An interesting advertisement from the “United States Post Office Stamp Manufactory”, John H. Zevely, Proprietor, est. 1850, appeared in an 1874 issue of The Official U. S. Post Office Bulletin, and was subsequently illustrated in J. David Baker’s The Postal History of Indiana, volume 1, page 369. This advertisement is shown in **Figure 2** (reproduced on page 3706), and illustrates several varieties of these RTS marking devices, including one with a “RETURNED TO WRITER” within a “pointing hand”, together with many other handstamps useful in a post office. Since this firm was established in 1850, these handstamps or ones very similar could have been available almost immediately after the new regulations were placed into effect.

By the beginning of the 20th century, some of these handstamp endorsements were rather elaborate. The cover shown in **Figure 3** (reproduced on page 3707) was mailed locally from Sherman, Texas in 1907, and the large hand and endorsement was also applied there.

The contemporary handstamps used today by the USPS are simpler and generally uniform in appearance, as can be seen on the two covers shown as **Figures 4A and B** (reproduced on page 3708). The letter to El Paso was endorsed using a handstamp with a “pointing hand” and a list of reasons for the return. The one letter mailed from Dallas, Texas, to Corpus Christi, Texas during 2004 has two different “pointing hand” endorsements, one of which includes the name of the classified station where delivery was attempted.

During the 1920’s, some larger post offices discovered they could automate the endorsement process by creating special dies for their automated canceling machines. The earliest reported example of this type of “service marking” die was one used in Los Angeles, California, on January 12, 1923. The cover in **Figure 5** (reproduced on page 3707) was first forwarded from Long Beach, California, to Amarillo, Texas, in 1931, then returned to the sender from Amarillo with a Universal machine die endorsement that reads ‘RETURNED / TO WRITER / UNCLAIMED.’

Text continued on page 3709

THE U. S. POST OFFICE BULLETIN.
Established in 1850.

THE UNITED STATES POST OFFICE STAMP MANUFACTORY.
JOHN H. ZEVELY, Proprietor.

I am fully prepared to furnish full and complete Stamping Outfits for Post Office use, and respectfully solicit the patronage of all who desire any kind of Stamps for Postal or private use.

No. 1. POST OFFICE MARKING STAMPS.



These Stamps are made in the same manner as the No. 1. A Stamp, with the exception of the addition of an inside ring, and different styles of letters. Either style delivered by mail to any Post Office in the United States, postage prepaid, on receipt of the price.

No. 2. POST OFFICE MARKING STAMPS.



No. 3. POST OFFICE MARKING STAMPS.



No. 4. POST OFFICE MARKING STAMPS.

These Stamps are made of the same material as the No. 1 Stamp, and have slits for the year, and are used in the same manner as the No. 1 Stamp, and have in addition a small piece of tin attached, in which is inserted a U.S. Cancellet for cancelling the postage stamp. This is the best and most convenient way of cancelling stamps, and the postage stamps cancelled at the same time, in one operation. They are sent by mail to any Post Office, postage prepaid, at the following prices: Style A, \$1.75; Style B, \$2.00; Style C, \$2.25; Style D, \$2.50.

STRAIGHT LINE TYPE STAMPS.

These Stamps are made of the same material as the No. 1 Stamp, and have slits for the year, and are used in the same manner as the No. 1 Stamp, and have in addition a small piece of tin attached, in which is inserted a U.S. Cancellet for cancelling the postage stamp. This is the best and most convenient way of cancelling stamps, and the postage stamps cancelled at the same time, in one operation. They are sent by mail to any Post Office, postage prepaid, at the following prices: Style A, \$1.75; Style B, \$2.00; Style C, \$2.25; Style D, \$2.50.

THOMAS BAKER. No. 2. R. O. & H. O. S. R. P. O.
H. GUARD, P. M. No. 4. M. WOODHAST, P. M.



PRICE.—Seventy-five cents each, delivered by mail, postage prepaid.

JOHN H. ZEVELY,
Proprietor, 100 N. G. St.,
WHEELING, W. VA.

Send Money by Post Office Money Order, or in a Registered Letter, at my risk, and the Stamps will in all cases, be delivered by mail, postage prepaid.

Figure 2: An advertisement by John H. Zevely, Proprietor, est. 1850.

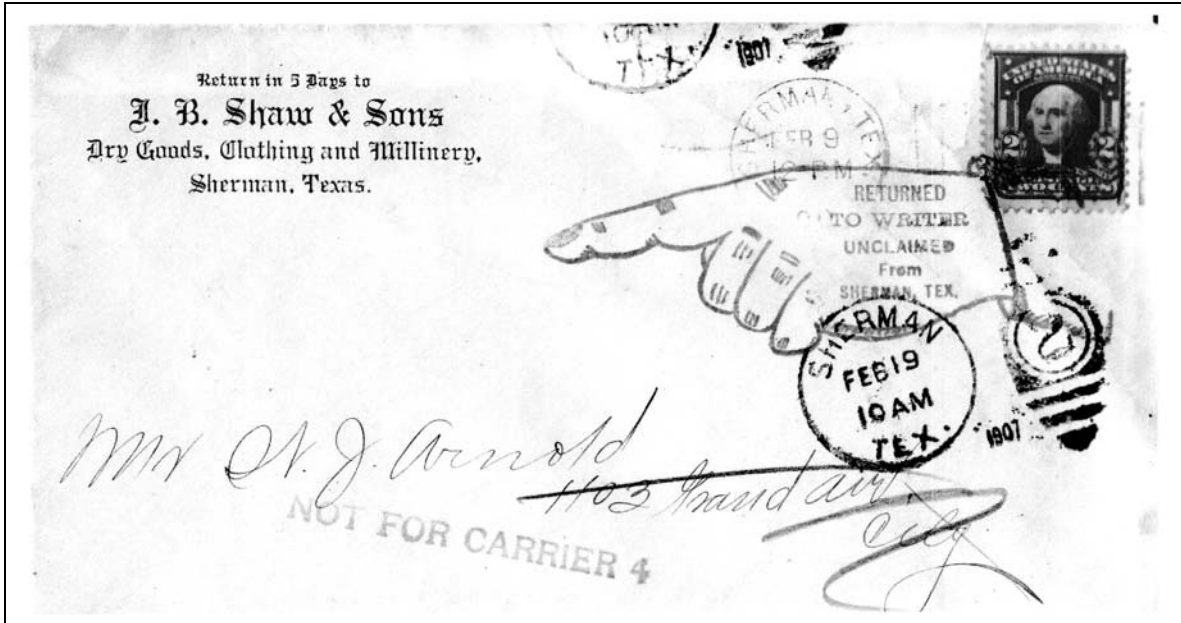


Figure 3: RETURNED / TO WRITER / UNCLAIMED / From / SHERMAN, TEX. inside a pointing hand applied by handstamp, with a corresponding Sherman, Tex. duplex cancel dated FEB 19, 1907.

Figure 4 is reproduced on page 3708.

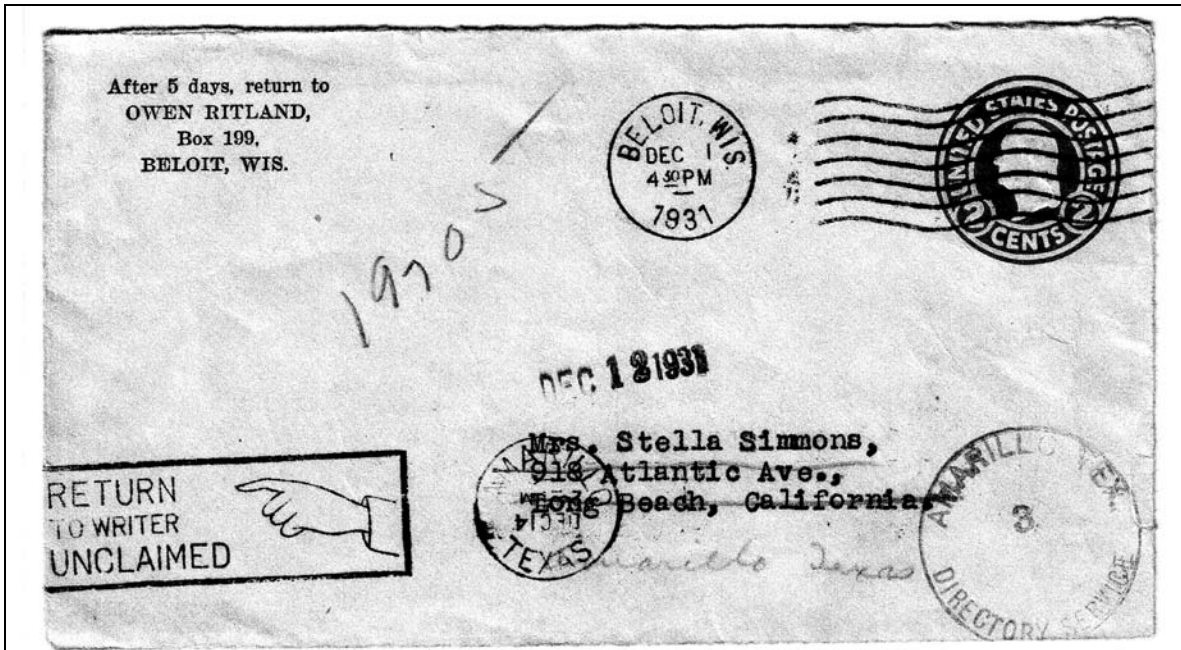


Figure 5: Mailed from Beloit, Wisconsin on December 1, 1931, to Long Beach, California, this envelope was forwarded to Amarillo, Texas. Even after receiving directory service (as indicated by rubber stamp applied at the lower right corner at Amarillo), the addressee could not be located. On December 14, 1931, the mail was returned unclaimed. Applied in black ink, a Universal machine cancel was used to direct the mail back to Wisconsin.

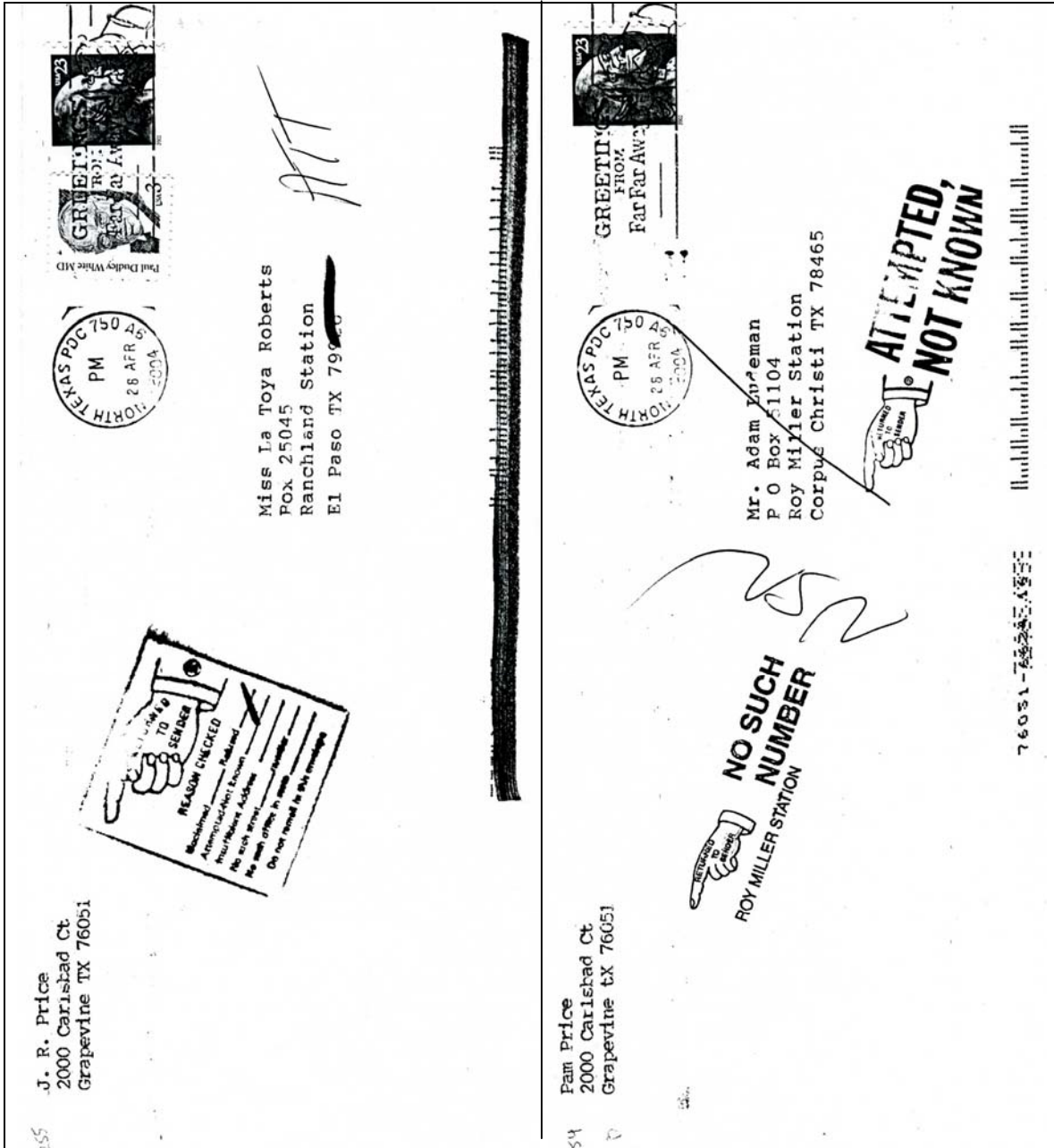


Figure 4A

Figure 4B

Figures 4A and 4B, above: Examples of United States Postal Service (USPS) contemporary handstamps directing that mail be returned to sender.

These handstamped endorsements consume considerable labor, and once applied are not automatically processed by USPS postal sorting devices.

Note that the USPS did not catch the underpayment of first class postage on this mail (26¢ and 23¢ paid by stamps respectively in lieu of 37¢) and attempt to collect “Postage Due”.

With the establishment of the Sectional Center Facilities in the 1960's, and the P&DCs later, the use of cancelling machines for these endorsements shifted from the local post offices to the regional centers. Today, a few of these P&DCs use this type of endorsement, although there is a wide variety of different texts and layouts in usage. **Figure 6** on page 3710 is an example of one of the dies used at the Dallas Mail Processing Facility in 2003, that reads "RETURN / TO SENDER / ATTEMPTED / NOT KNOWN."

Even the most recent use of the ink jet modules to spray these endorsements is not new. John M. Hotchner in his "U.S. Notes" column in Linn's Stamp News for January 12, 2004, illustrated a cover he had recently acquired with a spray endorsement in blue ink which read in two lines: "NOT DELIVERABLE AS ADDRESSED / UNABLE TO FORWARD." This cover was dated October 15, 1976 (!!), and was reported to be part of an experimental trial in Portland, Oregon, to apply these markings. This cover is illustrated as **Figure 7A** on page 3711 through the courtesy of Mr. Hotchner.

A similar cover postmarked December 21, 1977, from Placerville, California, addressed to Portland, Oregon, with the endorsement "MOVED LEFT NO FORWARD" was reported and pictured in the Machine Cancel Society special study International Service Markings – Special Service Markings Attributed to the International Postal Supply Co. 1889-1980, by Robert J. Payne, at page 69.

This was either a long trial period or a series of shorter trials over a several year period. When I approached Mr. Hotchner for permission to reproduce the cover from his Linn's article, he provided me with the cover shown in **Figure 7B**, which he had recently obtained. The cover was mailed from Buffalo, New York, on April 11, 1978 (18 months after his earlier cover) to Portland, Oregon, where it was eventually received three different markings: (1) a manuscript "Moved / 4 years ago" in blue ink; (2) a machine cancel service marking in red ink which provided a four line message "NOT DELIVERABLE / AS ADDRESSED / UNABLE TO FORWARD / RETURN TO SENDER" in a box with the pointing hand and a Portland, Oregon postmark dial dated April 19, 1978; (3) an ink jet spray endorsements in two lines: "NOT DELIVERABLE AS ADDRESSED / UNABLE TO FORWARD"; and (4) the more cryptic ink jet "FORWARD TO / 2005 WHE09". Both ink jet spray markings are in black ink.

DESCRIPTION OF THE RTS PROGRAM

The RTS Program is NOT part of a national USPS initiative, but is being implemented at selected P&DCs across the United States on a voluntary basis at the discretion of the USPS District Operations Manager and the P&DC Operations Manager at each P&DC in the district.¹ The following description of the RTS Program is based upon information provided in a document provided by the Houston District.² Although based on procedures at a specific P&DC, it is believed that the procedures would be generally applicable to other P&DCs which utilize this RTS Program.

The USPS groups all Return-to-Sender mail (RTS mail) into seven basic categories as follows³:

- (1) **Undeliverable as Addressed – UAA** – (forwarding order expired or mail piece marked 'do not forward'.)
- (2) **Attempted Not Known – ANK**
- (3) **Insufficient Address – I/A**
- (4) **No Such Number – NSN or N/S** (box or street)
- (5) **For Reason Shown – FRS** (mail pieces that do not fit one of the four categories above)
- (6) **Manual Non-Machinable** – (mail with no return address, oversized mail, thick mail (over 1/8"), bagged mail, booklets, untabbed fliers, etc.)
- (7) **Manual Non-Automated** – (mail with a slick or shiny appearance, having a cellophane window 5.0" from the right edge, and other mail not meeting criteria from RTS as specified in the DMM.)

Text continued on page 3712

¹ Correspondence, Barbara Pokorny, USPS/Austin to author dated June 1, 2004.

² "Standard Operating Procedure: N.[orth] Houston and Associate Offices First Class Letter Mail Automated Endorsement Return-to-Sender" [SOP], Document Number: rts02v5, USPS, Houston District, September 11, 2002.

³ SOP, Section 5.2.2.

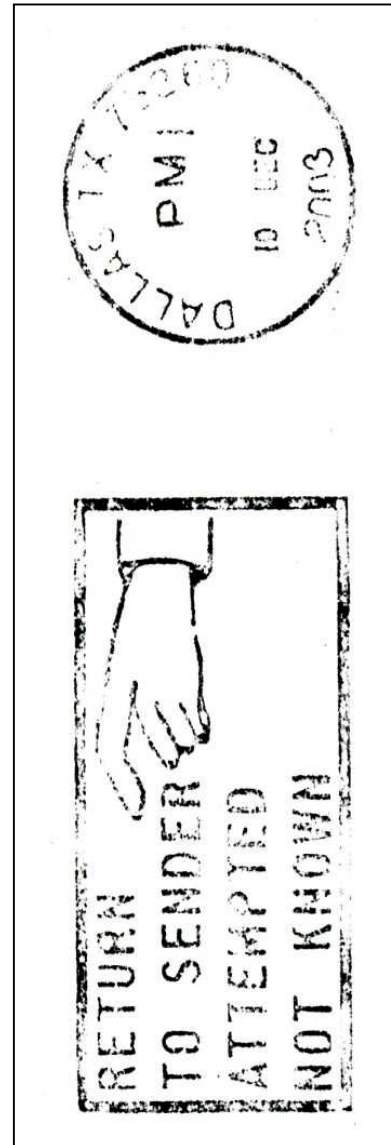
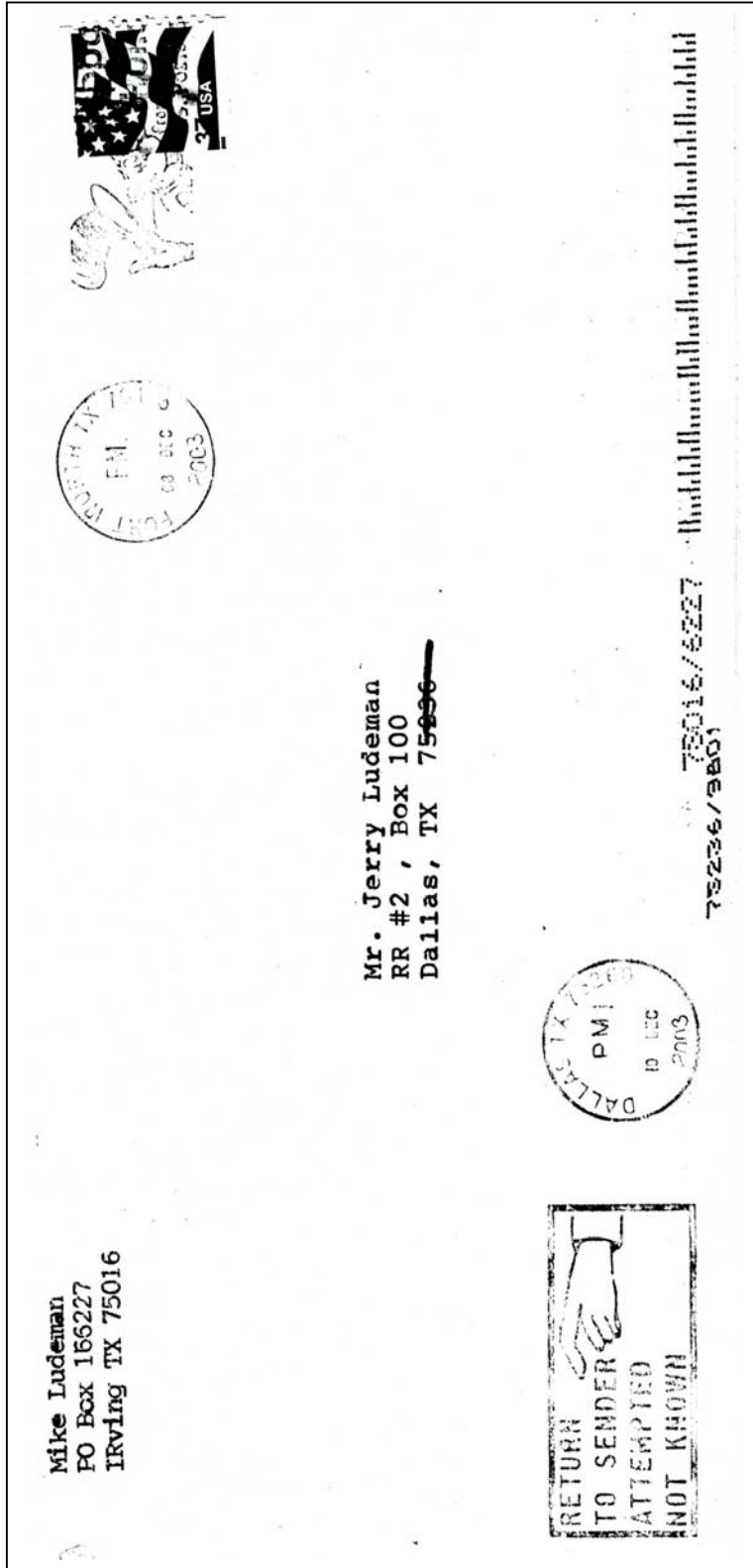


Figure 6: Send from Irving, Texas, postmarked FORT WORTH TX 75103 on 08 DEC 2003, and directed to zip code 75236 (Dallas, Texas), the appropriate POSTNET spray appears at the bottom. The mail was returned NOT KNOWN, and noted with a DALLAS TX 75260 machine endorsement. The dies look like they are from a facer-canceller, but could also be applied by a machine that uses its dies.

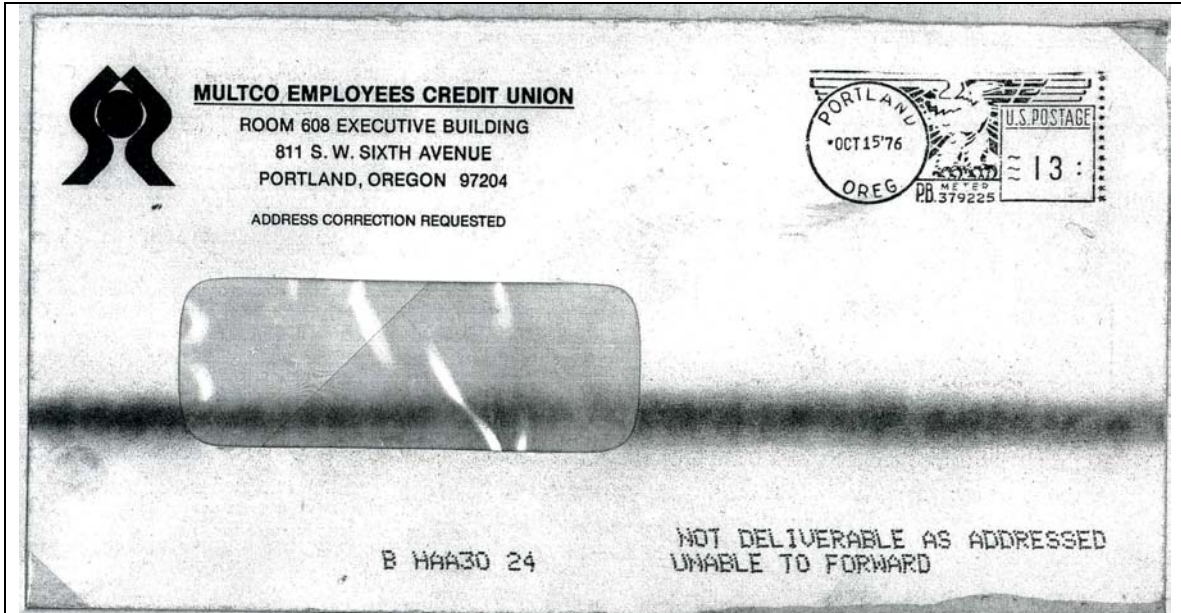


Figure 7A: Posted with meter franking on October 15, 1976, the statement and its envelope were returned soon after, with the notation sprayed on the bottom: ‘B HAA30 24 NOT DELIVERABLE AS ADDRESSED / UNABLE TO FORWARD.’

Both covers courtesy of John M. Hotchner

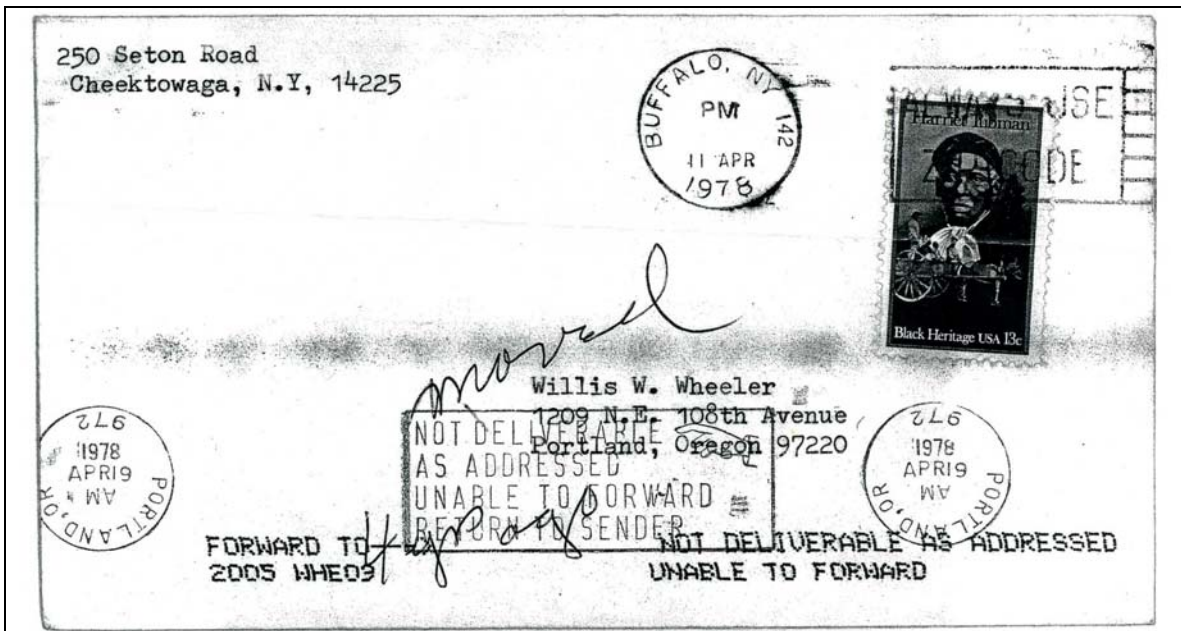


Figure 7B: Posted from Buffalo, New York, on April 11, 1978, and directed to Portland, Oregon, there was a difficulty in delivery. An International Service Marking was applied at PORTLAND, OR 972 dated 1978 / APR 19 / AM. Note the postmark date and time slugs are inverted in relation to each other. The machine applied endorsement reads, “NOT DELIVERABLE / AS ADDRESSED / UNABLE TO FORWARD / RETURN TO SENDER.” Ink jet markings advise, on the left, ‘FORWARD TO / 2005 WHE09’ and on the right, “NOT DELIVERABLE AS ADDRESSED / UNABLE TO FORWARD.”

Only mail from the first five categories is considered machinable. During the accumulation of the various examples used in this study, several mail pieces were encountered in which the address and return address were handwritten rather than typed or printed, but which had still been processed by this RTS Program, and received an ink jet endorsement. Upon inquiry to the USPS, I was advised that “most of our machines are now capable of reading handwritten mail, making the mail machinable.”⁴ The full cover shown on the outside back cover of this issue of Forum is one of these examples.

Local mail which is identified as undeliverable can be immediately returned to the sender. All other mail is prepared for return to the P&DC. When there is no RTS Program involved, the local post office generally is responsible for adding all necessary RTS endorsements to the letter before returning it to the P&DC. Under the RTS Program, any Non-Machinable mail must be manually processed at the local post office, and the necessary endorsements added. The RTS mail which can be automated will have to be marked on the face by the carrier or the clerk or postmaster with the standard notations: UAA, ANK, I/A, NSN, NSS (no such street), Deceased, Vacant, etc., and then sorted and placed into separate trays or containers by category. These trays or containers, properly labeled, are then transported to the P&DC. The local post office also must insure that mail from category (5), “FOR REASON SHOWN”, had a proper RTS endorsement which identifies the reason for return.

As this RTS mail is received at the P&DC, the mail from each category is consolidated with similar mail from other post offices. As part of this consolidation process, the mail is faced to insure the return address is faced forward so that it can be read by the OCR (Optical Character Reader). At the North Houston P&DC, Tour 3 (4 pm to 11 pm) and Tour 1 (11 pm – 7 am) are responsible for the consolidation process, and making it ready for automated processing. The actual processing of the RTS mail is accomplished on Tour 2 (7 am – 4 pm).⁵

The initial automated processing step occurs on the LMLM (Letter Mail Labeling Machine). The return address is read and a new delivery bar code is applied to the lower edge of the envelope, below the address. This equipment has the facility to place a blank, gummed adhesive label on the envelope so that this new delivery bar code is not sprayed directly on top of the original one.

The second step occurs on the MLOCR/ISS (Multi-Line Optical Character Reader/Input Sub System) which reads both the City/State/Zip Code line and the street/box line, and performs some confirmation that they agree. The operator selects the RTS mode, and then selects the appropriate RTS message type from categories (1) to (5), which were described earlier. These messages are standard messages which can be stored in and recalled from the transport computer memory, or may be entered as a unique message at the operator console.

The operator also loads the appropriate RTS sort plan. All RTS mail is then processed, and the appropriate RTS endorsement is sprayed on the mail piece and the letter placed in the proper output sort tray. Mail which is not processed successfully is sent to a reject tray, and is manually processed. The RTS mail pieces are removed from the various output sort positions, and packaged for a return trip to the point of origination.

It was noted earlier that when the return address was located on the back side of the letter, the letter was faced with that side forward and would be processed in that manner.⁶ Because none of my original examples had the return address on the back side of the envelope, I duplicated the address and return address for several examples, placing the return address on the back side. These were then mailed to see what type of handling they would receive. In one instance, the mail piece was returned with this RTS endorsement sprayed on the back. This envelope is shown as **Figure 8**. In each other case, the letter was returned with a rubber handstamp endorsement. It appears that this feature is operational, but perhaps not fully understood by the postmasters or clerks at the post offices or the operators at the P&DC.

⁴ Correspondence, Jerry R. Warren, USPS/Houston District to author, dated December 21, 2004.

⁵ SOP, Section 6.0.

⁶ SOP, Section 5.2.3.

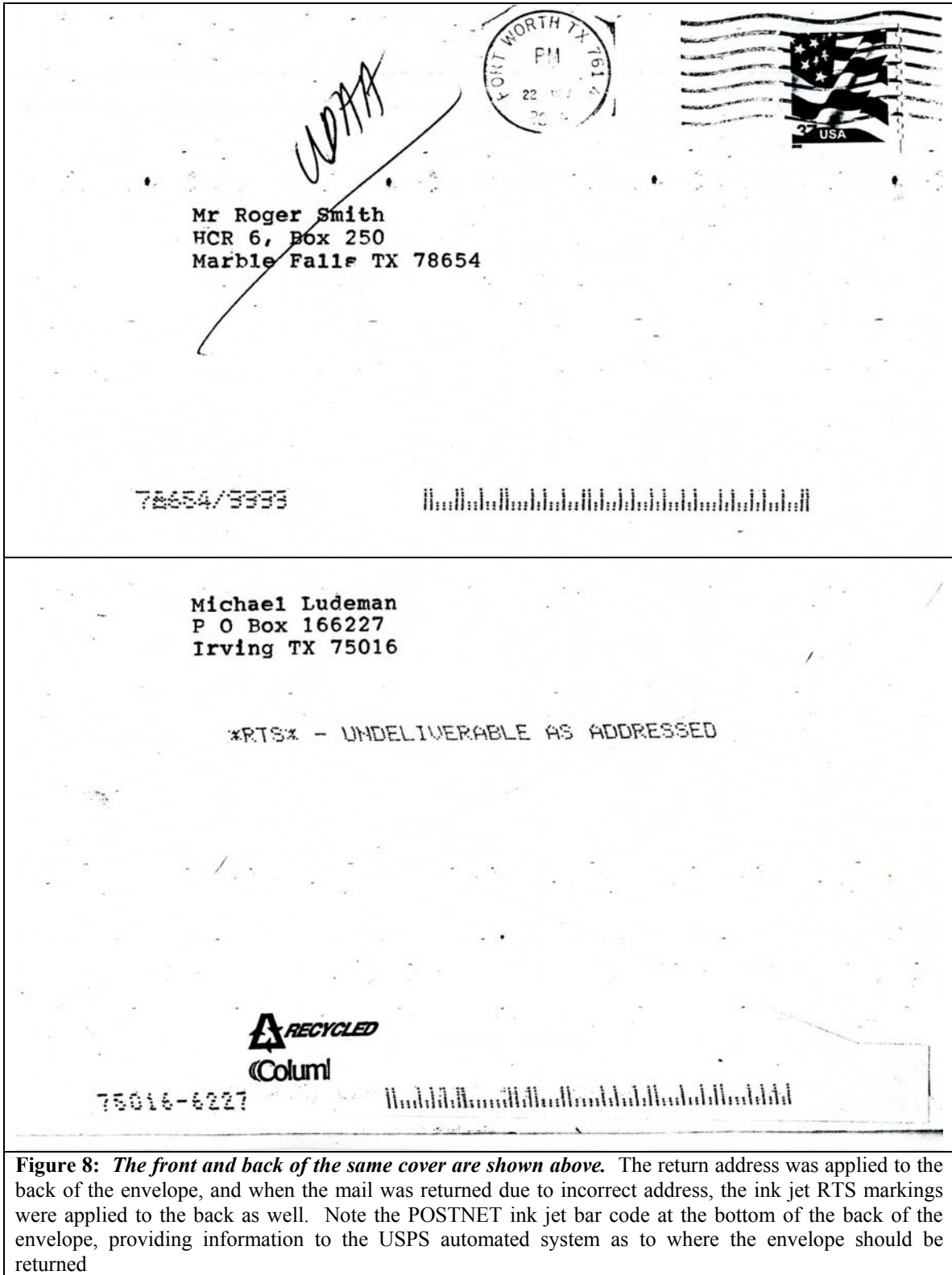


Figure 8: *The front and back of the same cover are shown above.* The return address was applied to the back of the envelope, and when the mail was returned due to incorrect address, the ink jet RTS markings were applied to the back as well. Note the POSTNET ink jet bar code at the bottom of the back of the envelope, providing information to the USPS automated system as to where the envelope should be returned

Throughout this North Houston P&DC SOP document, instructions were explicitly included at many steps requiring that any RTS mail pieces which were found to be improperly prepared or endorsed were to be returned to the non-complying office for correction, and it was emphasized that these were NOT to be corrected and processed at the P&DC. Apparently this was from a concern that a post office might otherwise “dump” their RTS mail to the P&DC for processing without proper preparation.

IMPLEMENTATION OF THE RTS PROGRAM IN TEXAS

There are as of March 2005, twenty P&DCs in Texas which process, cancel, sort, and distribute mail. These are organized within four USPS districts which roughly divide Texas into four geographical regions: the Houston District (covering the southeast), the Rio Grande District (covering the southwest and far west), the Dallas District (covering the northeast), and the Fort Worth District (covering the west and northwest). By reviewing the destination addresses on all of the letters accumulated with various RTS markings, it was possible to determine that five of these twenty P&DCs typically used some type of machine cancel “service making” dies on their RTS mail endorsements, such as shown in **Figure 6**. These were at the P&DCs in Lubbock, Amarillo, Dallas, North Texas (Coppell), and McAllen. Another nine P&DCs appeared to use only the rubber handstamp endorsements on their RTS mail, like in **Figure 4**. The remaining six P&DCs appeared to be participating in this RTS Program. These were the P&DCs at Beaumont, Bryan, Houston (Barbara Jordan MPC), and North Houston, all located in the Houston District; and Austin and San Antonio, located in the Rio Grande District. These determinations were made primarily on the destination address and ZIP Code on the RTS mail examined, which turned out to not always be a reliable indicator.

Since all of this RTS Program mail appeared to originate from only two districts, an inquiry was made to each district office using the Freedom of Information Act (FOIA), requesting records about the RTS Program and the locations where it was implemented. One of the key records obtained in this manner was the “Standard Operating Procedure” document, referenced in the previous section as the source for the description of the RTS Program.⁷ Additional information received from the Houston District revealed that all of the RTS mail in that district was being processed at only two of the P&DCs: The Barbara Jordan MPC in Houston, and the North Houston P&DC.⁸ The RTS mail which I had seen addressed to addresses served by the Bryan and Beaumont P&DCs, and which I had initially assumed were processed at these locations, was initially sent from the destination post offices to these two P&DCs, *but then forwarded a second time to the North Houston P&DC, where the actual RTS spray markings were applied.*⁹

The Rio Grande District subsequently confirmed that only the Austin and San Antonio P&DCs were participating in this RTS Program.¹⁰ Neither district was able to provide information regarding when the RTS Program was initiated, but based on the effective date of the North Houston “Standard Operating Procedure”, which was September 11, 2002, it seems likely that the Houston District was prepared to begin the program at the beginning of the 2003 fiscal year, and the Rio Grande District probably began operation in the same time frame. At this point, I am assuming that it is mostly coincidence that I did not encounter any of these ink jet spray endorsements until nearly a year later.

Once the participating P&DCs were identified, the next step was to determine whether all post offices in the district were sending their RTS mail to their P&DC for this processing, or whether only a portion of the post offices did so. The North Houston SOP provided the criteria that determined which post offices (called Associate Offices, or AOs, in the SOP). It provided at all AOs in the Houston District which were at “level 20 or above” were to participate in the RTS Program.¹¹ It was subsequently determined that “level 20” in this context referred to the Executive and Administrative Salary (EAS) schedule levels which were normally used to establish the salary levels for postmasters and other non-union supervisory personnel. This was an odd choice for a selection criteria, since these levels had no direct relationship to mail volumes

⁷ Standard Operating Procedure or SOP.

⁸ Correspondence, Jerry R. Warren, USPS/Houston District to author, dated November 10, 2004.

⁹ Correspondence, Jerry R. Warren, USPS/Houston District to author, dated April 15, 2005. [HO]

¹⁰ Correspondence, Mona Maze, USPS/Rio Grande District to author, dated November 9, 2004. [RG].

¹¹ SOP, Section 1.0.

or other operating criteria, and in this writer's mind, the Cost Ascertainment Group (CAG) levels, which are used to group post offices based on annual postal revenues, would have been a more intuitive choice.¹²

However, there is a rough correlation which can be made between the size of an AO based on its postal revenue (CAG) and the salary level of its postmasters, and using data collected previously for these AOs in the Houston District, this criteria is comparable to only including those AOs with an annual postal revenue of \$700,000 or higher. In the case of the Houston District, this level 20 criteria determined that 66 of the 209 AOs were actually participating in this RTS Program. Thus one could expect to encounter first class mail with this ink jet spray endorsement returned from all of these offices. So far, in addition to the mail discussed earlier which had been addressed to Bryan and Beaumont, the author has seen these spray markings on mail addressed to ten more of these AOs, and assumes that others are simply waiting to be discovered.

The Rio Grande District took a slightly different approach in defining which AOs were allowed to take part in the RTS Program. The first difference was that only those AOs within the normal service area of the two P&DCs were included in the program, rather than allowing certain AOs throughout the district to participate. Thus, for the Austin P&DC, only AOs in the ZIP Codes 786, 787, and 789 were eligible for the program, and this was further qualified by only including those AOs which were at the EAS level 18 and above. The end result was that only 31 of the 97 AOs served by the Austin P&DC were active in the program. While no reason was provided why their selection criteria was at level 18 in this district rather than level 20, it turns out that there are only 15 AOs at level 20 or above in the Austin P&DC service area, and perhaps this was not a sufficient number to provide the RTS mail volume desired at the P&DC.

The criteria for the Rio Grande P&DC took a different approach. Here, the selection criteria was to include all AOs which had ten (10) or more carrier delivery routes. This criteria was more difficult to quantify. The only regularly published data about carrier routes and delivery points is found in the National ZIP Code Directory, in Section 4, under "Post Office Delivery Statistics." Using this data for Texas, with the estimate that a city carrier route consisted of approximately 400 delivery points, and that a rural carrier route consisted of 600 delivery points, I was able to identify 16 AOs in the area served by the San Antonio P&DC (consisting of ZIP Codes 780, 781, 782, and 788) which met this criteria. Coincidentally, these also turned out to be the 16 AOs in this area, with an EAS level of 20 and above, so that this criteria turned out to be equivalent to that used in the Houston District, and a little more restrictive than that used at the Austin P&DC.

Another piece of information was obtained from the Houston District which is relevant to the present study. **Table I** shows the average monthly mail volume for two P&DCs in the Houston District which were involved in this program for several categories of first class mail. The average shown is for the period August 2004 through March 2005, and is approximate. The actual monthly mail volumes vary between 5% and 10%.¹³

Table I First Class Mail Volumes* Houston & North Houston P&DCs		
	Houston	North Houston
All First Class Mail	335,123,000	281,881,000
Total First Class Mail – RTS Mail	2,414,000	3,011,000
Total RTS Mail Sprayed by current program	1,609,000	2,509,000
Total Manual Non-Machinable RTS Mail	804,000	501,000
Total Manual Non-Automation RTS Mail	430,000	311,000
* Average monthly mail volume for the two Houston district P&DCs which were involved in the RTS program for several categories of first class mail. The average shown is for the period August 2004 through March 2005, and is approximate.		

¹² "Postal Operations Manual", [Issue 8], Section 123.11, "Post Offices", July 16, 1998.

¹³ HO.

From this table we can see that approximately one percent of all mail falls into the “Return-to-Sender” category. I presume that the higher percentage shown for North Houston is due to the addition of the RTS mail from Bryan and Beaumont, and that P&DCs total mail volume does not include the actual mail volume from Bryan and Beaumont, but only their RTS mail. It was also estimated that there was another 26,000 pieces of RTS mail which was returned from the smaller post offices (those below the EAS level 20).

Unfortunately, the Rio Grande District was unable to provide similar mail volume data for the Austin and San Antonio P&DCs.

In the Houston District SOP, there were five basic messages described, based on the five categories of RTS mail described therein. In correspondence with the Rio Grande District office, it was implied that they used nine standard RTS endorsement messages, but as of this writing I have not been able to get that statement clarified, and only the usual five have been encountered in use.¹⁴

In my review of the fifty plus examples which I had accumulated during the course of this study, it became apparent that there was both a good deal of commonality among these messages, as well as enough points of variation to make collecting and classifying these RTS messages “interesting”. Before looking at the specific examples, we will review a few basic characteristics of these endorsements.

1. Nearly all messages observed from participating Texas P&DCs were sprayed in red ink.
2. The typical endorsement position was between 19 and 35 mm below the top edge of the envelope (which was the down edge position when traveling on the transport), but there was no obvious uniformity as to the position of the starting or ending location of the endorsement on the envelope. Intuitively, one would have expected that the end of the endorsement (which would actually have been sprayed first) would have started at the same general location with respect to the leading edge of the envelope, but this did not appear to be the case.
3. Character heights were observed between 1.0 mm and 3.0 mm, with 2.0 mm being the most common height. In a few instances, the bottom edge of the spray endorsement was truncated or distorted.
4. There were two easily distinguished character widths (or character spacings) observed. The most common, which I will designate as the “standard” width, consisted of characters which were 2.5 mm wide (and on about 2.7 mm spacings), which is close to a pitch of 10 characters per inch. The other was a “double-size” character which was about 5.0 mm wide, and equivalent to a pitch of five characters per inch.
5. Each of these RTS messages consisted to two elements which for convenience will be designated as the “header” and the “endorsement.”
 - a. The header element was observed on all but a few of these examples seen from Texas, and in each instance, consisted of “RTS” (for Return-to-Sender) and some combination of special characters: “*”, “-”, “+”, etc. By far, the most frequent combination was “*RTS*”, but most of the other variations are also included in the examples in the following section. In several instances, the header was preceded by a numeral, which for lack of a better explanation, is assumed to be some type of transport identifier. [Note: the use of the abbreviation “RTS” may well be limited to the Texas P&DCs. The majority of these RTS spray endorsements observed from other states fully spelled out the phrase “RETURN TO SENDER”. The Houston District confirmed that the use of “RTS” was purely a local preference.¹⁵]

¹⁴ RG.

¹⁵ HO.

- b. The endorsement elements were generally consistent in their wordings. Four of these endorsements closely matched the categories of endorsements noted earlier.
 - i. INSUFFICIENT ADDRESS
 - ii. ATTEMPTED NOT KNOWN
 - iii. NO SUCH NUMBER
 - iv. FOR REASON SHOWN
 - v. The fifth endorsement category was nominally ‘UNDELIVERABLE AS ADDRESSED’, and occurred in a number of variations, with and without the added phrase “UNABLE TO FORWARD.”
6. The total number of characters in these RTS messages (headers plus endorsements ranged between 20 and 45. In a few instances, the longer messages printed with the double-size characters exceeded the width of the envelope and were truncated at the left edge of the envelope, making it difficult to identify the precise form of the header element.

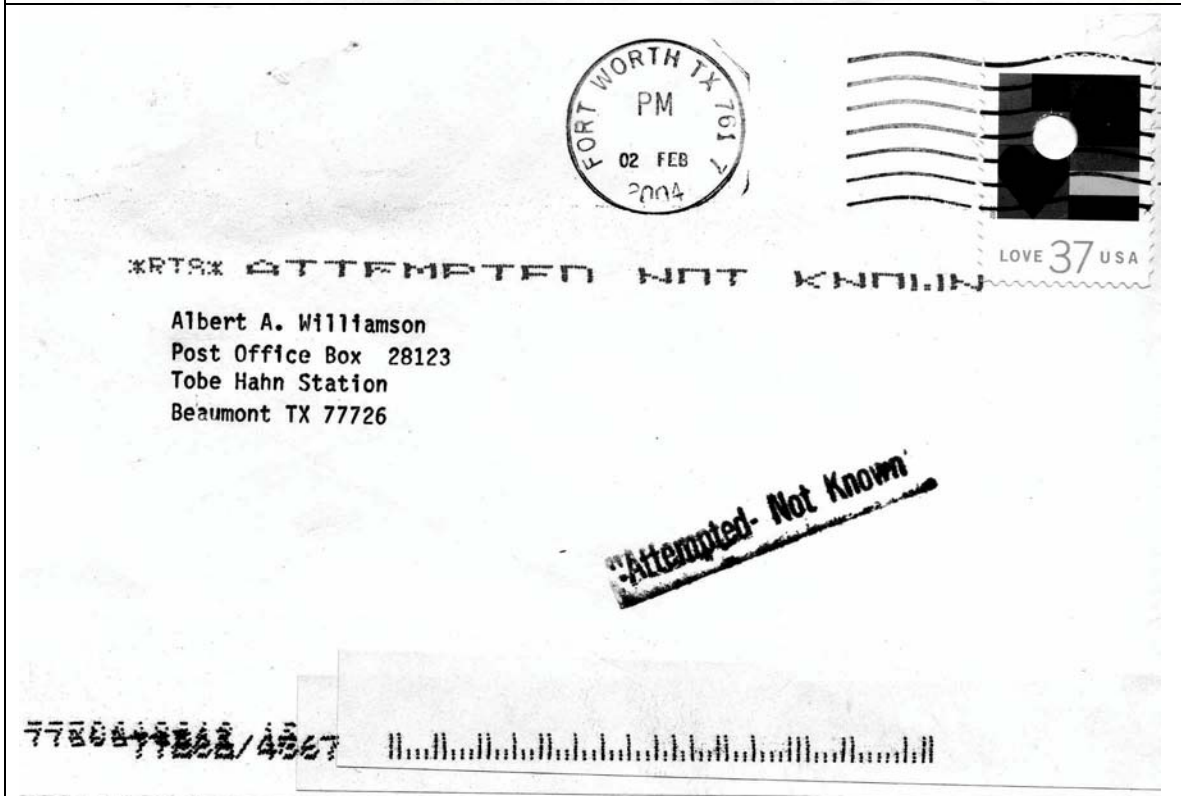
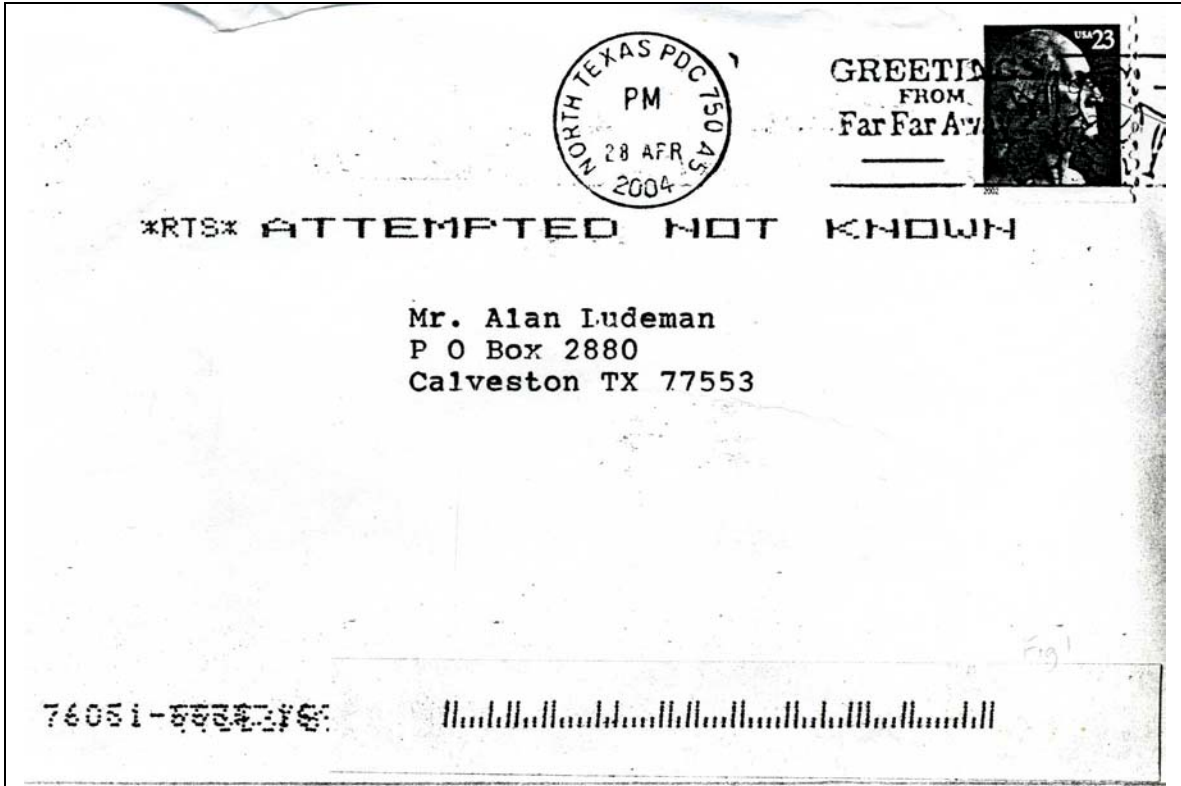
In response to an inquiry made to the origin of these variations the following was learned:

1. The variations in characters height and width, and positions on the mailpiece are generally the results of the characteristics of the particular transport on which the mail piece was processed.
2. The variations in the content of the RTS message were generally a function of the operational procedures at the individual P&DCs. While these RTS messages can be stored in the transport computer memory, the operator may also override the default message and create his own.

In addition, some of the variations in the header element appeared to be P&DC dependent. In a close examination of all of the Texas examples, the header element from the Austin and Rio Grande P&DCs was consistently in the form “*RTS*”, while all of the odd variations came out of the two Houston P&DCs.

EXAMPLES OF THE RTS SPRAY ENDORSEMENTS FROM TEXAS

This section will illustrate a variety of these RTS messages with all of the different character sizes, RTS header element varieties, and RTS endorsement observed to date. These are grouped based on the RTS endorsement element, and no real effort has been made as yet to further organize or classify these into types, since the present sample is biased towards Texas P&DCs. Many of these marking varieties have been seen on multiple occasions, while others are thus far unique. *All of the following illustrations, beginning with Figure 9, were imported into WORD without size adjustment by the Editor, and at closest to actual size (100%) as can be editorially achieved. Figures 9 through 17 went through an identical process of scanning, importation into WORD, and photocopying into print. Therefore the relative sizes of the ink jet characters (even if the process changed their size by a small degree), remain relative in height to each other.* Beneath each illustration is the name of the P&DC where it was sprayed, and the year of the example. No effort has been made in this presentation to distinguish between the markings at the two Houston P&DCs; all are designated as coming from “Houston”.



Examples of the "ATTEMPTED NOT KNOWN" endorsement. Variations include:
Figures 9A (top): 3.0 mm high, double size characters, but with *RTS* header in normal size
and 9B (bottom): Similar to 9A but lower portion of message is truncated.

Both examples Houston, 2004



Figure 9C (above): Hand drawn to scale by author, the size, shape and letters of the RTS ink jet markings in **Figures 9A** and **9B** are compared. In the above drawing, “(a)” represents the ink jet marking in **Figure 9A**. The line “(b)” represents the ink jet markings in **Figure 9B**. Notice how the letters in line “(b)” are missing their bottom portions. They are truncated.

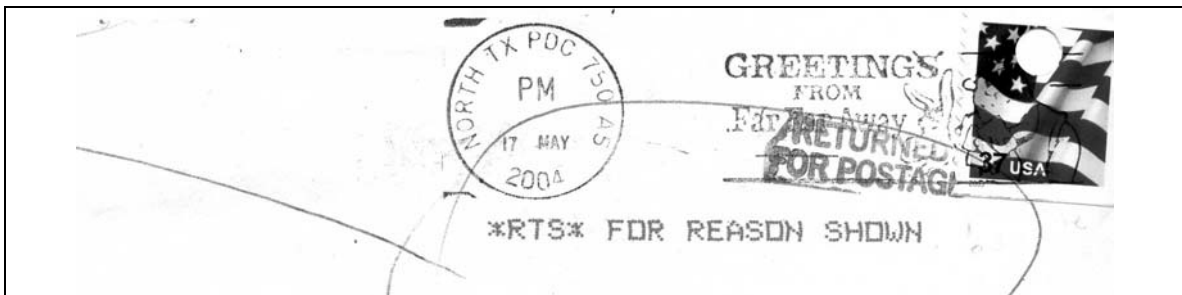


Figure 10A (above): 2.0 mm height, normal character width, *RTS* header, followed by FOR REASON SHOWN. Austin, 2004

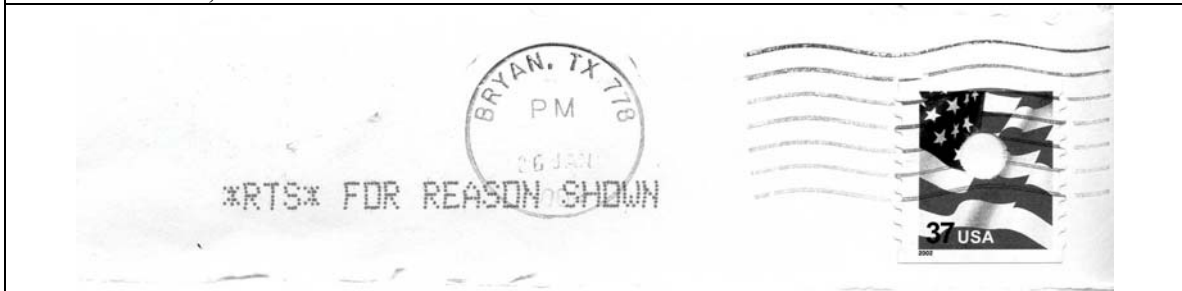


Figure 10B (above): 3.0 mm height, normal character width, *RTS* header, followed by FOR REASON SHOWN. Austin, 2004

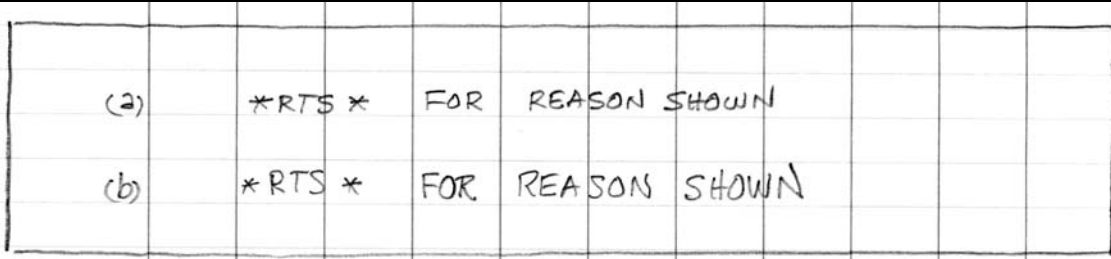


Figure 10C (above): Hand drawn to scale by the author, “FOR REASON SHOWN” endorsement comparing variations in the lettering of the ink jet characters of **Figures 10A** and **10B**. Both of these examples have normal character width, and no truncating of lettering. But the size of the lettering is different.

Figure 11

Examples of “INSUFFICIENT ADDRESS” endorsements. Variations include:

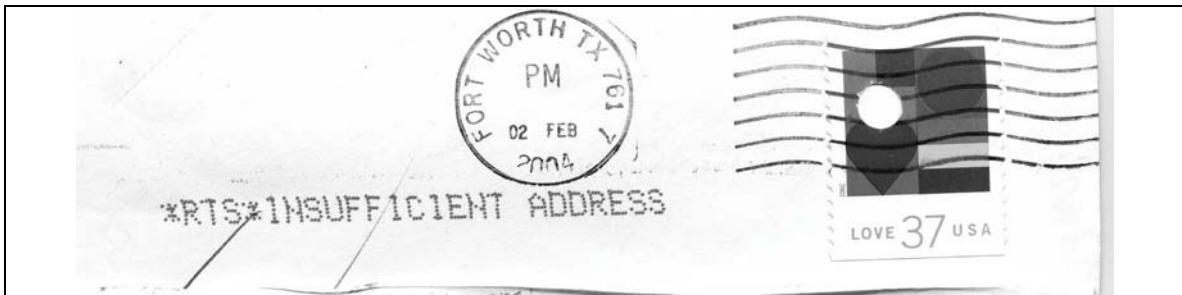


Figure 11A (above): 2.0 mm height, normal character width, *RTS* header. Austin, 2004.

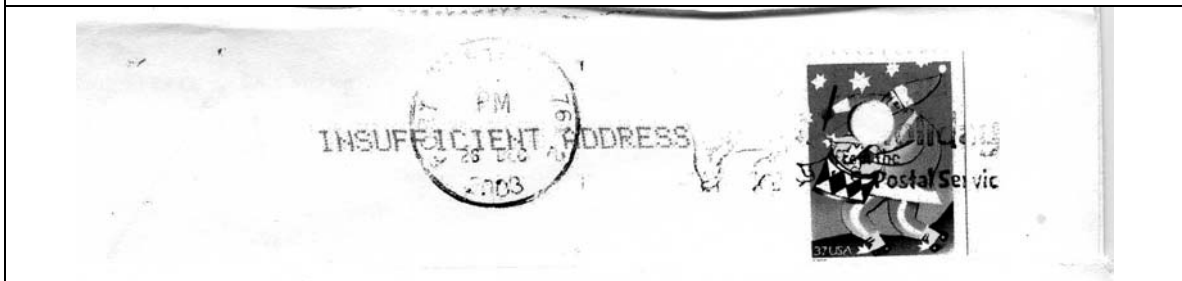


Figure 11B (above): 2.0 mm height, normal character width, no “RTS” header. Houston, 2003.

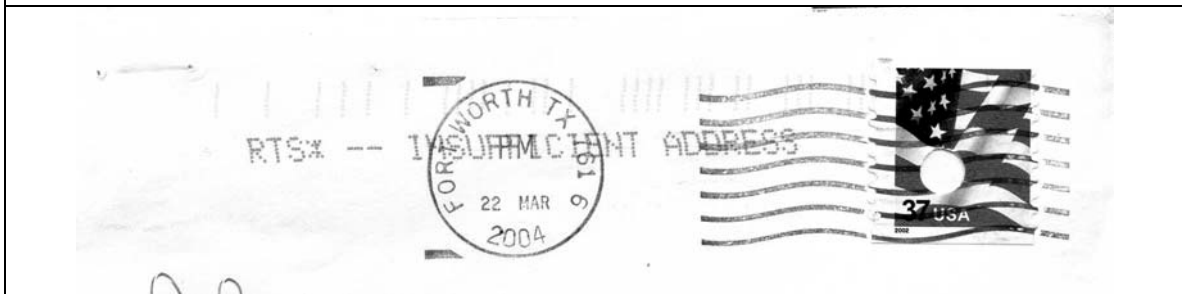


Figure 11C (above): Same as example in **Figure 9B**, but with variant “RTS*--” header. Houston, 2004.

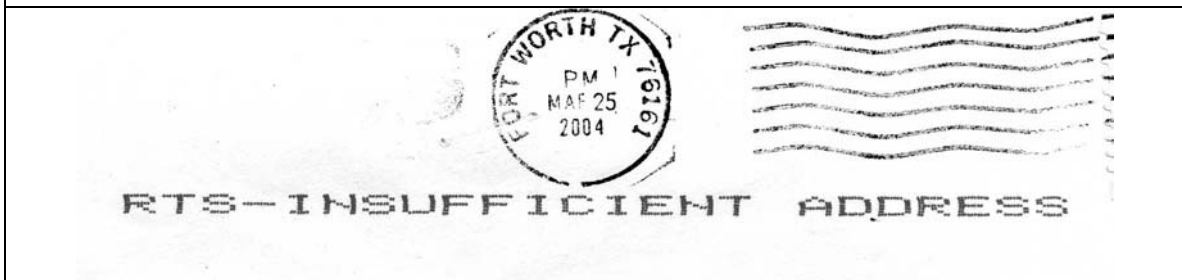


Figure 11D (above): 3.0 mm height, double size character, variant “RTS--” header. Houston, 2004.

Note the machine cancel in this example, with a 5-digit ZIP Code. The other examples in **Figure 11** use facer-canceller metal dies. The postmark dial and the cancel for this example correspond to a small electric International machine cancel device.

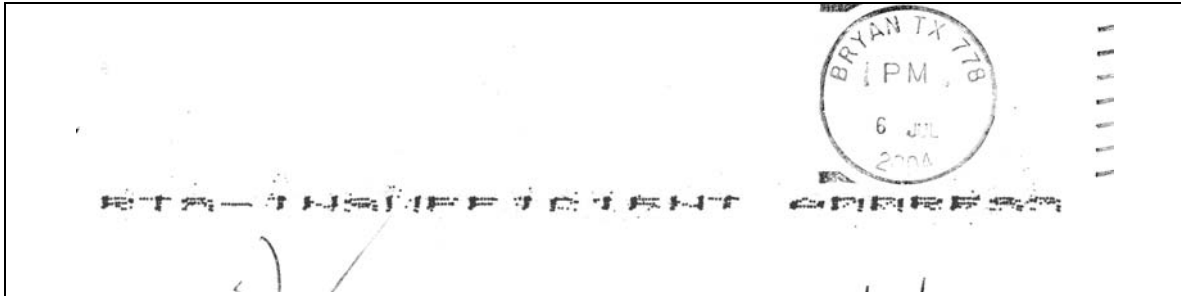


Figure 11E (above): This is not a poorly scanned example. It is the same as the example in **Figure 11D**, but lower edge of RTS message has been truncated. Houston, 2004. Similar as well to the example in **Figure 9B**.

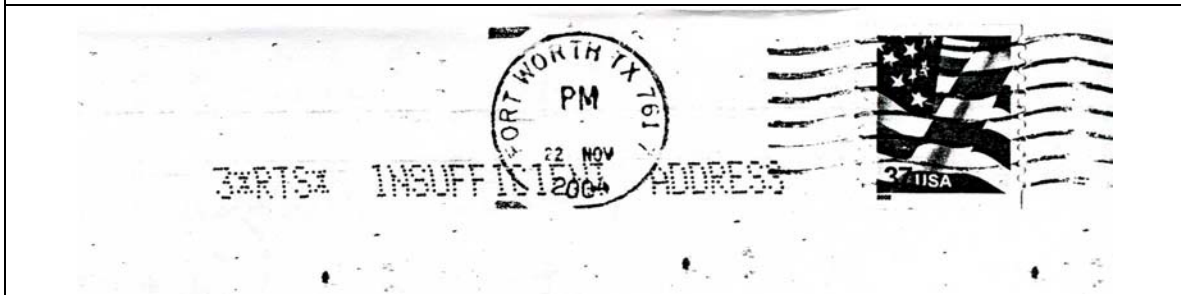


Figure 11F (above): 3.0 mm height, normal character width, "3*RTS*" header. Houston, 2004.

(a)	*RTS**	INSUFFICIENT	ADDRESS
(b)		INSUFFICIENT	ADDRESS
(c)	RTS*	INSUFFICIENT	ADDRESS
(d)	RTS-	INSUFFICIENT	ADDRESS
(e)	RTS-	INSUFFICIENT	ADDRESS
(f)	3*RTS*	INSUFFICIENT	ADDRESS

Figure 11G (above): Hand drawn to scale by author, the size, shape and letters of the RTS ink jet markings in **Figures 11** are compared. As before, the line marked "(a)" corresponds to **Figure 11A** in this grouping, and so forth for each of the other lines (b) through (f).

Figure 12

Examples of the 'NO SUCH NUMBER' endorsement. Variations include:

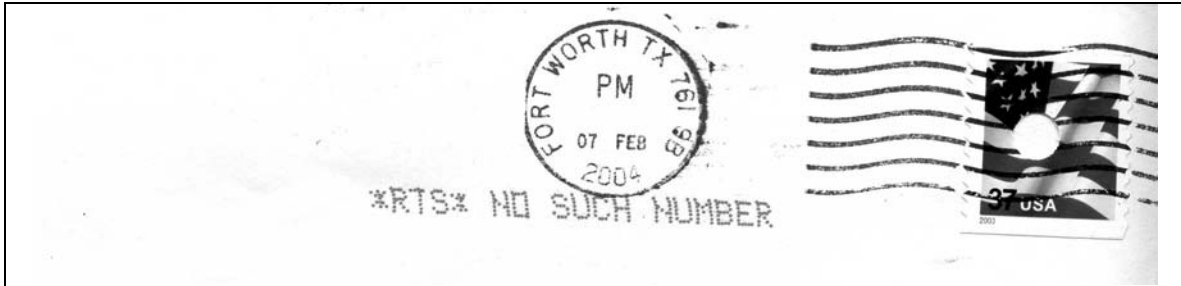


Figure 12A (above): 2.0 mm height, normal character width, “*RTS*” header. Austin, 2004

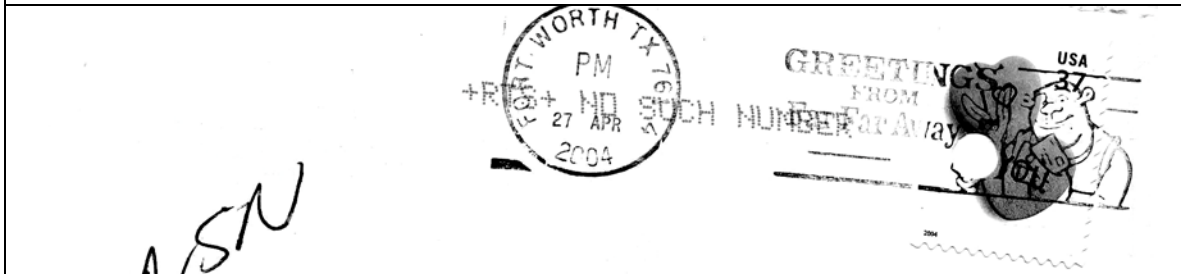


Figure 12B (above): Same as **Figure 12A** but with variant “+RTS+” header. Houston, 2004.

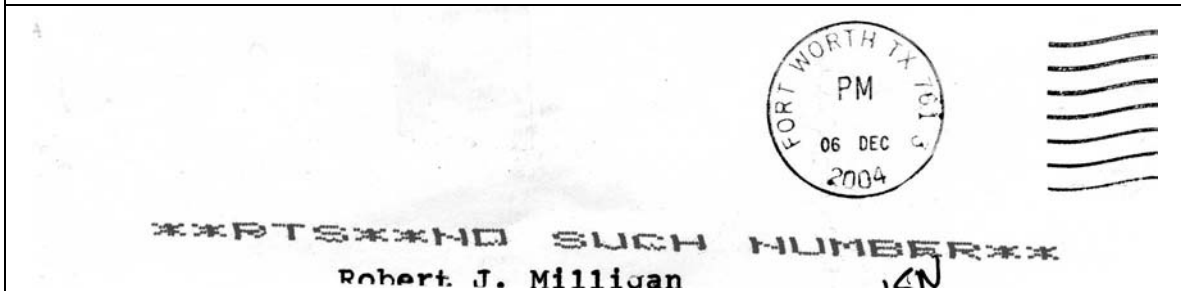


Figure 12C (above): 2.0 mm height, double size character, variant “**RTS**” header. Houston, 2004.

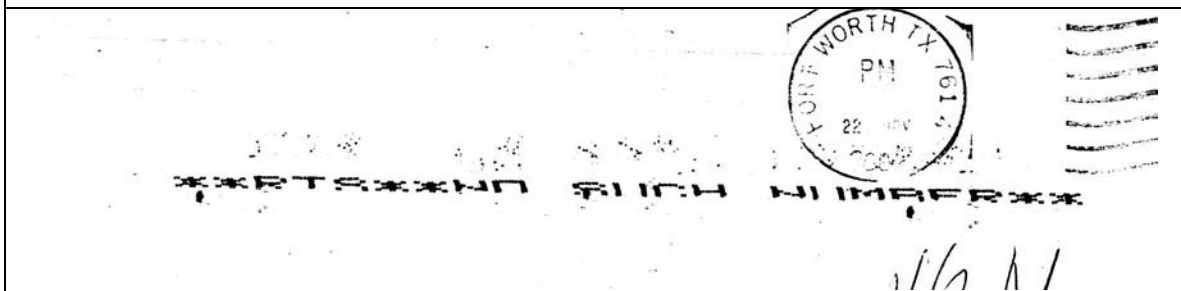


Figure 12D (above): Same as **Figure 12C**, but lower edge of the “**RTS**” message truncated. Houston, 2004. Similar to **Figure 11E**.

(a)	*RTS* NO SUCH NUMBER
(b)	+RTS+ NO SUCH NUMBER
(c)	**RTS** NO SUCH NUMBER **
(d)	** RTS ** NO SUCH NUMBRFR **

Figure 12E (above): The author has again hand drawn the letters of the RTS ink jet endorsements, this time for the endorsements featured in Figure 12, to scale for our easy comparison.

Figures 13 through 16 present several different variations on the RTS endorsement “NOT DELIVERABLE AS ADDRESSED, UNABLE TO FORWARD.”

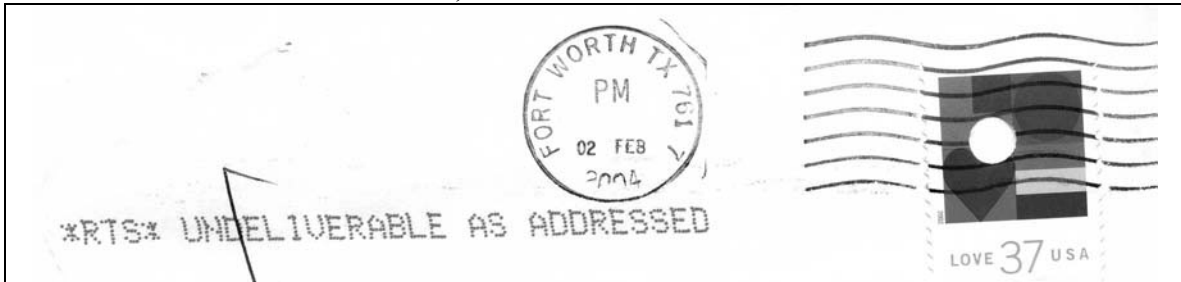


Figure 13 (above): The variant used exclusively (so far) at the **Austin P&DC in 2004**, which reads “UNDELIVERABLE AS ADDRESSED.” This is the only example which uses “UN” rather than “NOT”. The characters are 3.0 mm in height, with the standard “*RTS*” header.

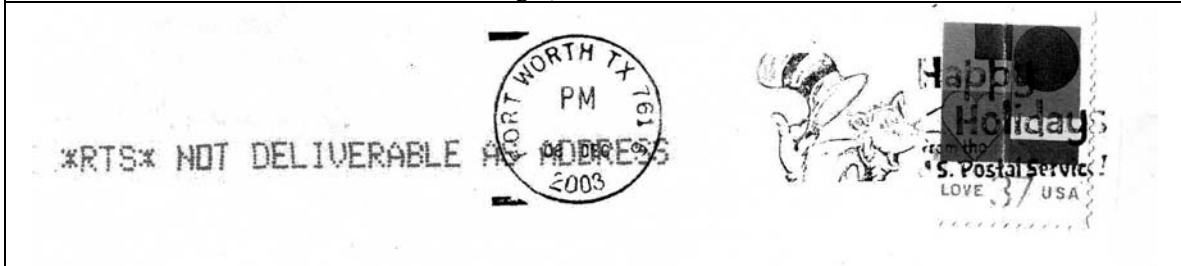


Figure 14 (above): Used at San Antonio in 2003, it reads the more common “NOT DELIVERABLE AS ADDRESSED.” The characters are 3.0 mm in height, with the standard “*RTS*” header.

RTS	UNDELIVERABLE AS ADDRESSED
**RTS*	NOT DELIVERABLE AS ADDRESSED

Figure 15

Several variations of the "NOT DELIVERABLE" message and header, as they have been observed in use at the Houston P&DCs. Variations include:

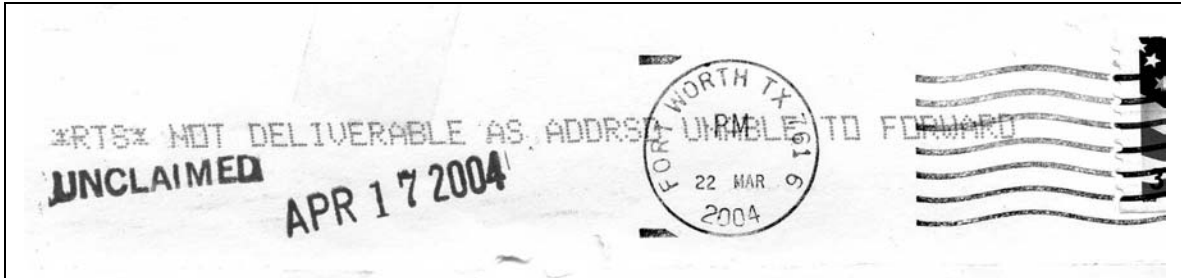


Figure 15A (above): "NOT DELIVERABLE AS ADDRESS UNABLE TO FORWARD"
3.0 mm height, normal character width, "*RTS*" header. Houston 2004.

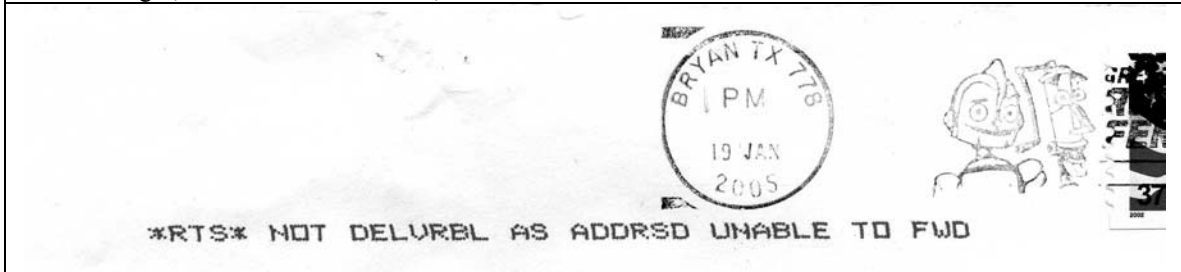


Figure 15B (above): "NOT DELVRBL AS ADDRSD UNABLE TO FWD"
2.0 mm height, normal character width. "*RTS*" header. Houston, 2004.

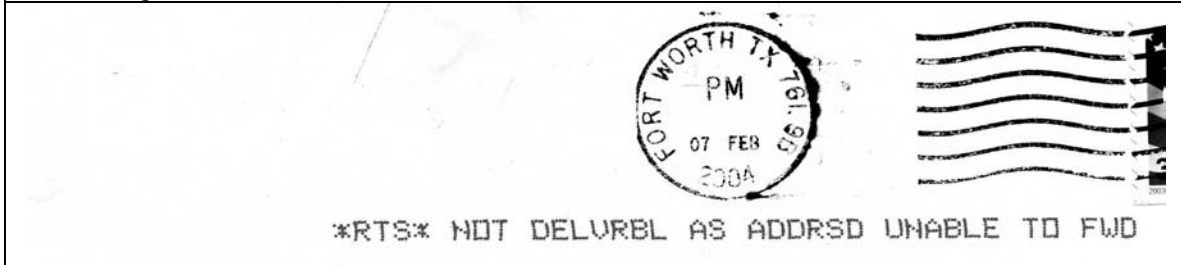


Figure 15C (above): "NOT DELVRBL AS ADDRSD UNABLE TO FWD"
3.0 mm height, normal character width. "*RTS*" header. Houston, 2004.

Figure 15 D on facing page, at left: "NOT DELVRBL AS ADDRSD UNABLE TO FORAD"
3.0 mm height, double size character width. "?TS-" header. Houston, 2004.

Figure 15 E on facing page, at right: "NOT DELVRBL AS ADDRSD UNABLE TO FWD"
3.0 mm height, double size character width. "??" header. Houston, 2004.

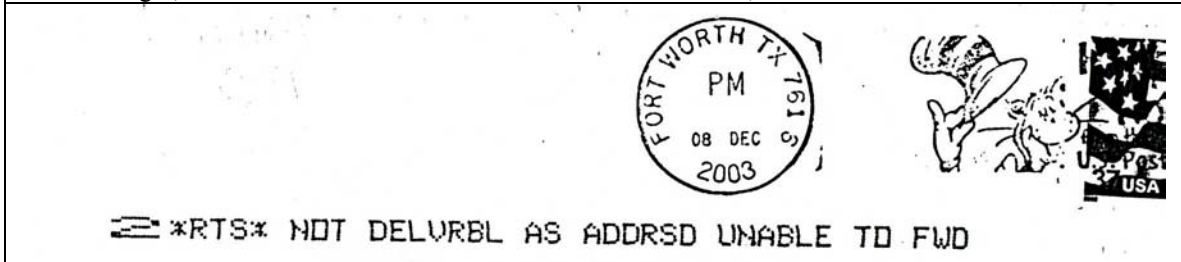


Figure 15F (above): "NOT DELVRBL AS ADDRSD UNABLE TO FWD"
3.0 mm height, normal character width, "2*RBS*" header with double size "2". Houston, 2003.

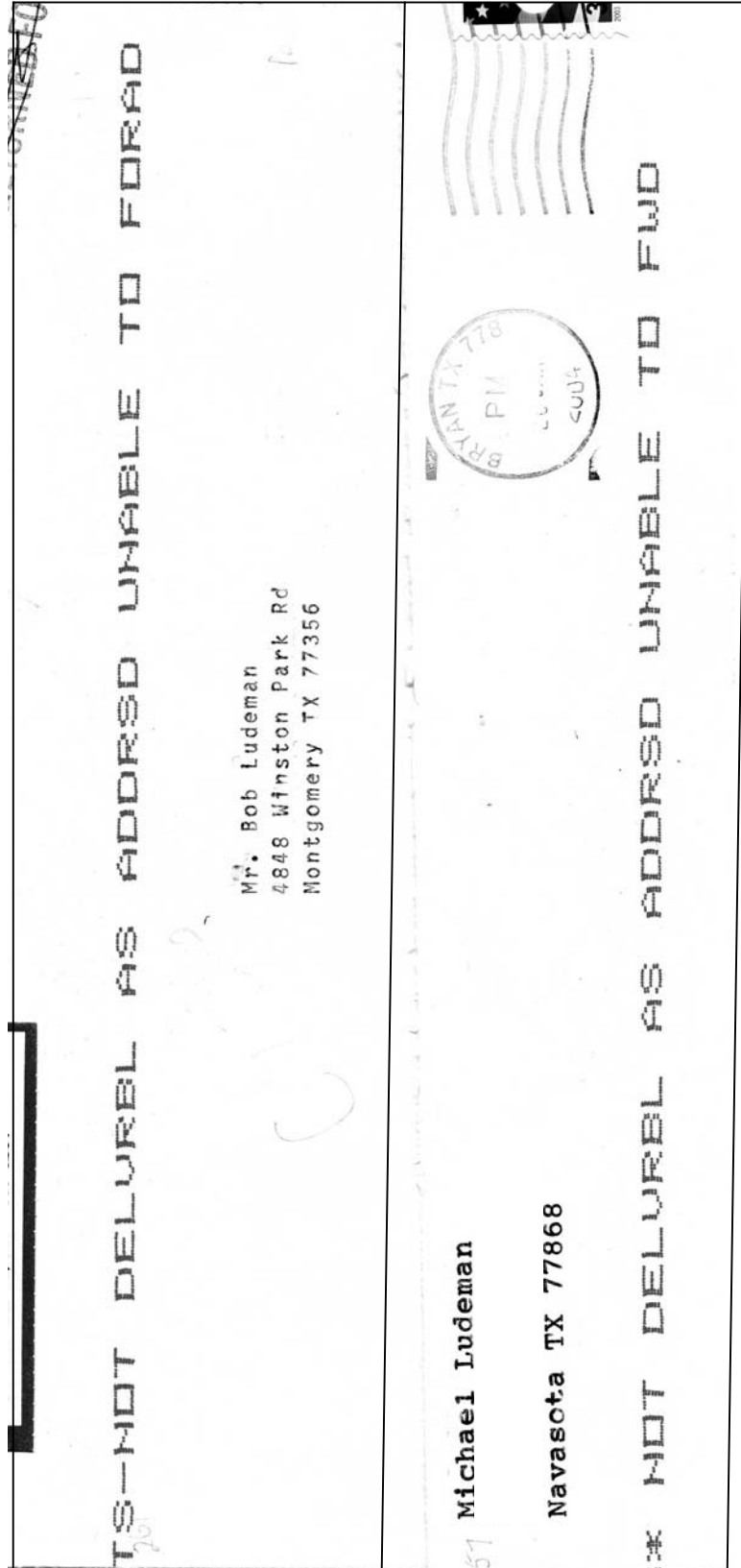


Figure 15D directly above

Figure 15E directly above

For caption explanation, see page 3724.

Figure 15G
 Character Summary of the Ink Jet Endorsements
 Featured in Figures 15 A – F

(a)	*RTS*	NOT DELIVERABLE AS ADDRSD	UNABLE TO FORWARD
(b)	*RTS*	NOT DELVRBL AS ADDRSD	UNABLE TO FWD
(c)	*RTS*	NOT DELVRBL AS ADDRSD	UNABLE TO FWD
(d)	*	NOT DELVRBL AS ADDRSD	UNABLE TO FWD
(e)	TR-	NOT DELVRBL AS ADDRSD	UNABLE TO FORWARD
(f)	2*RTS*	NOT DELVRBL AS ADDRSD	UNABLE TO FWD

Figure 15 G (Above): Hand drawn to scale by author, the size, shape and letters of the RTS ink jet markings in **Figures 15 A - F** are compared. As before, the line marked “(a)” corresponds to **Figure 15A** in this grouping, and so forth for each of the other lines (b) through (f).

Figure 16, on the facing page, is shows the final variety from this P&DC group, which is a simple “UNABLE TO FORWARD” endorsement. This endorsement has the 3.0 mm high characters with standard width, no “RTS” header, and was used at Houston during 2004. This is the only example of this wording to date.

Figure 17, also on the facing page, illustrates the only Texas originated ink jet spray endorsement encountered from San Antonio, Texas P&DC, and is **in black ink** rather than the usual red ink. The characters are only 1.0 mm tall. The message is similar to others of its category, “*RTS*--FOR REASON SHOWN”.

Since the original draft of this article was prepared, I have encountered several additional envelopes with this RTS endorsement in black ink. All were from the San Antonio P&DC and sizes were in the 1.0 mm to 3.0 mm height range. My assumptions at this point is that at least one of the systems used to spray these endorsements is set up to use black ink, but I have no idea why.

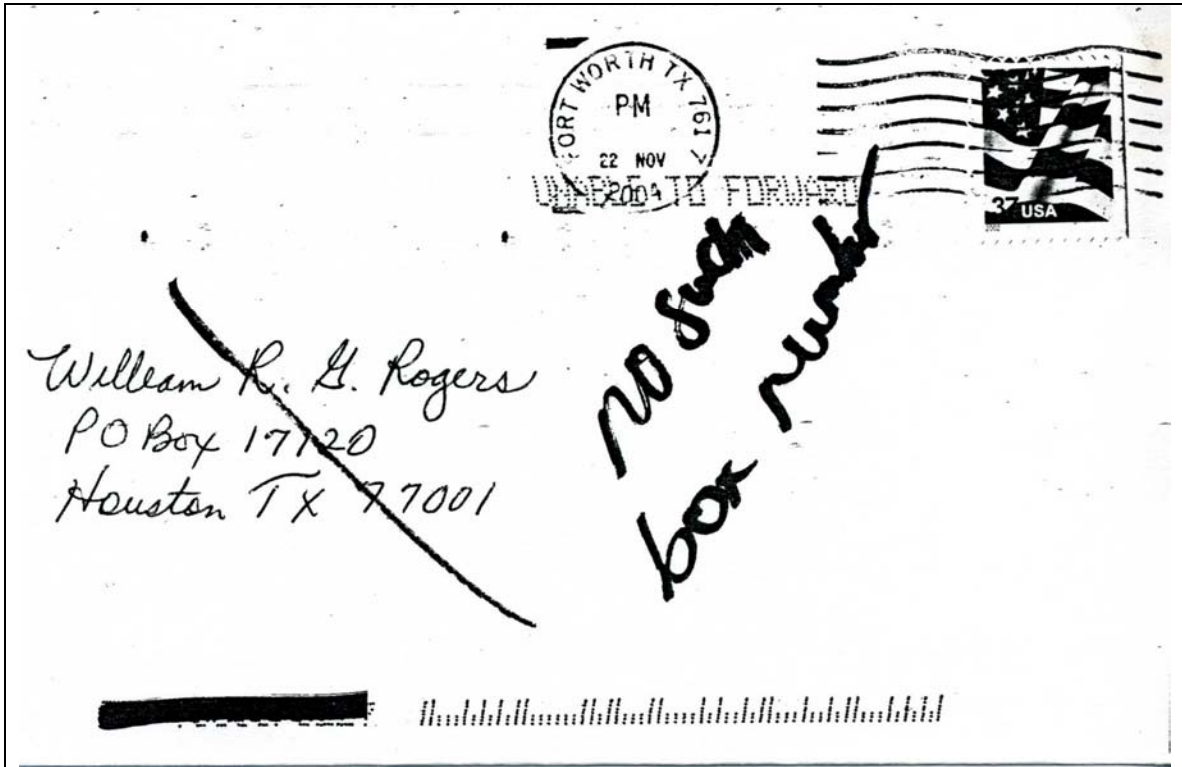


Figure 16 (above): "UNABLE TO FORWARD"
 3.0 mm high characters with standard width. No "RTS" header. Houston, 2004.

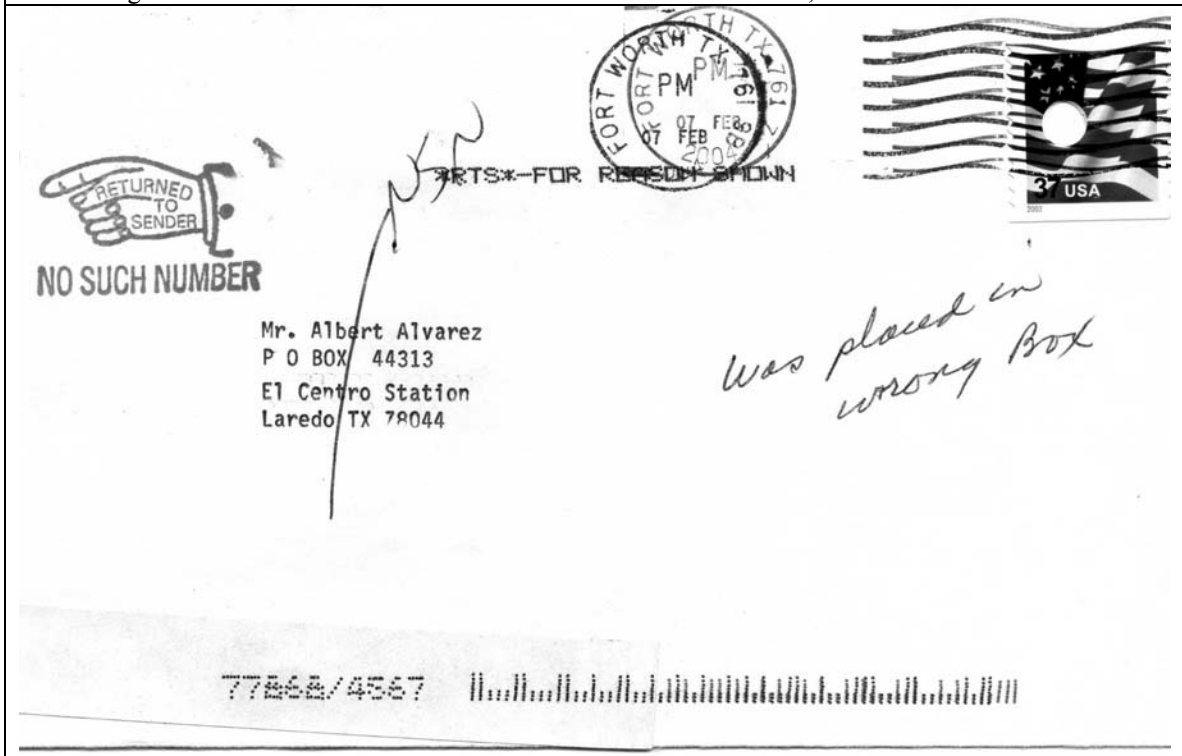


Figure 17 (above): "*RTS*-FOR REASON SHOWN"
 1.0 mm height. "*RTS*" header. On mail returned from San Antonio, Texas, 2004.

CONCLUSIONS

This completes the discussion for the ink jet spray on Return-to-Sender endorsements found on mail processed at Texas P&DCs, which was the intended scope of the original article.

However, while I was preparing this article, the Editor of the Auxiliary Markings Club newsletter, Anthony Wawrukiewicz, mentioned that he and others were preparing an introductory article on these spray on endorsements for that newsletter. I put together a brief summary of my research and a few examples from Texas, and those were combined into an article with examples from other states for that publication.¹⁶

As a result, I began some additional research into how widespread this RTS program was elsewhere in the United States, and will report on this in an upcoming issue of the Forum. Because I have very few examples from outside Texas, I am requesting that members check their collections, and if you can find examples of these markings, kindly send a color scan or photocopy to Forum’s Editor, A J Savakis, P O Box 609, Warren, Ohio 44482. Please note the color of the marking if you provide a regular photocopy. We will try to include as many variations as we can in this next article.

Thank you for your assistance.

RTS MAIL AT YOUNGSTOWN, OHIO / A COMPARISON

A J Savakis, Editor’s Note

Here in the Mahoning Valley, a very large yellow sticker over the address and Bar Code area if there is an address correction OR a reason to return the mail piece to the sender.

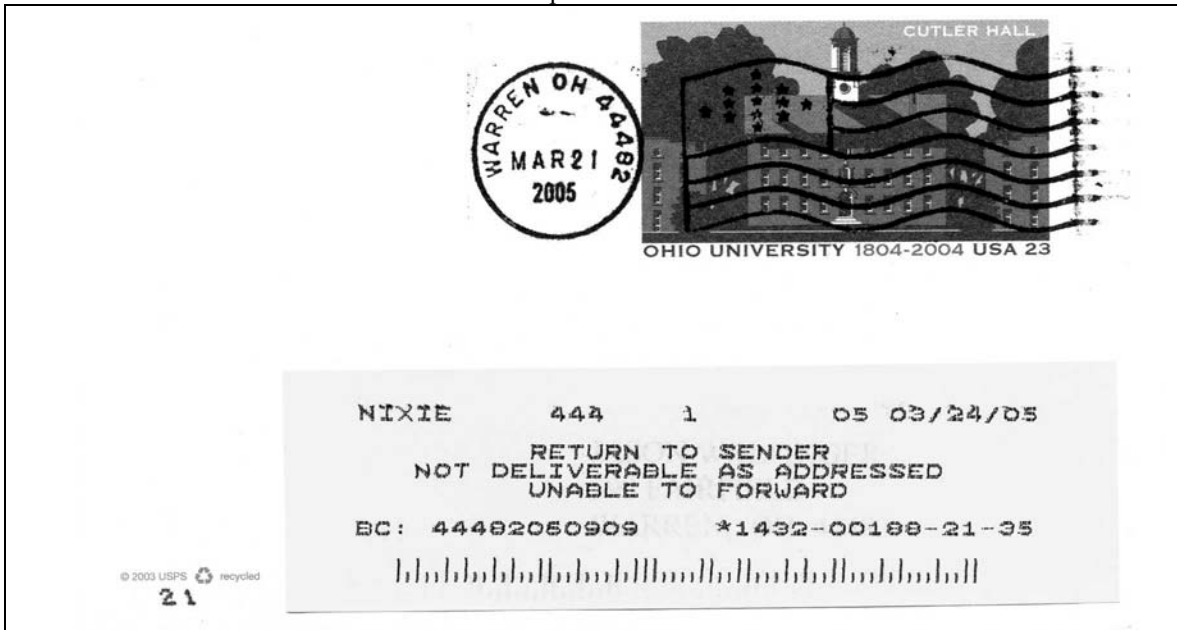


Figure 1: A local club mailing for its spring stamp show, postmarked March 21, 2005, by an HD2 International machine, with special US Flag hub borrowed from the US Study Group of the Japan Study Group. A yellow label was applied and the undeliverable mail was re-directed back to the addressee – address located on the backside of the card.

As noted by Michael Ludeman, if the return address is located on the back of the mail, the RTS information might be added to the back as well. Consider the piece on the next page:

¹⁶ Clark, Nancy, Michael M. Ludeman, and Tony Wawrukiewicz, “Spray Cancel Auxiliary Markings”, in Auxiliary Markings, Volume 2, Number 2, Issue 6, pages 6,7.

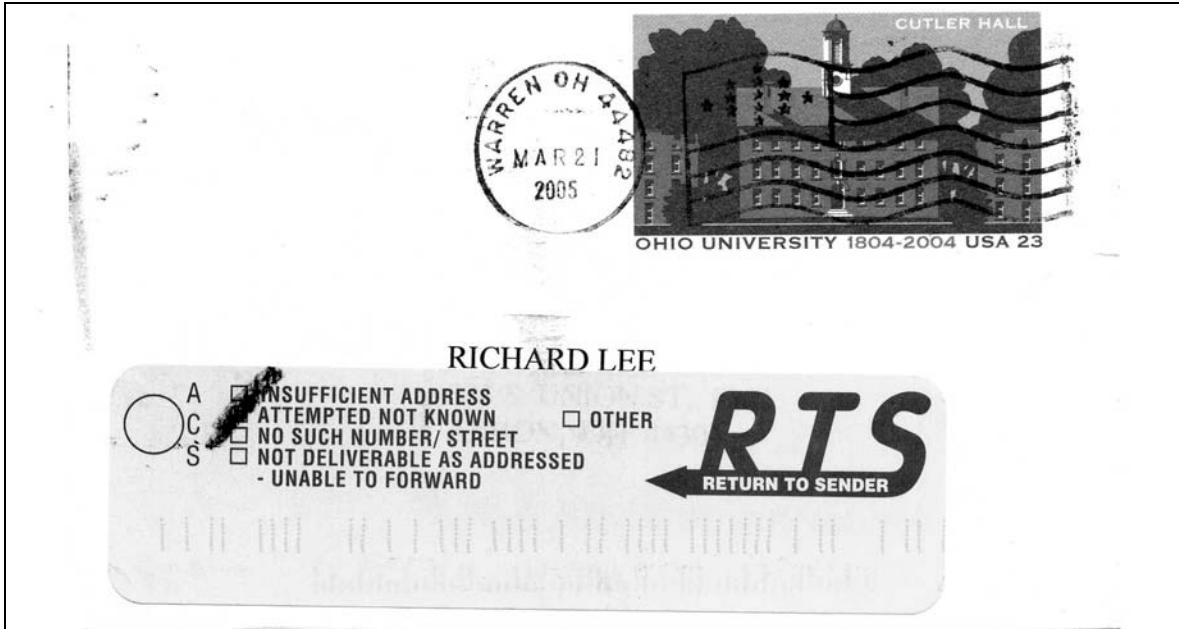
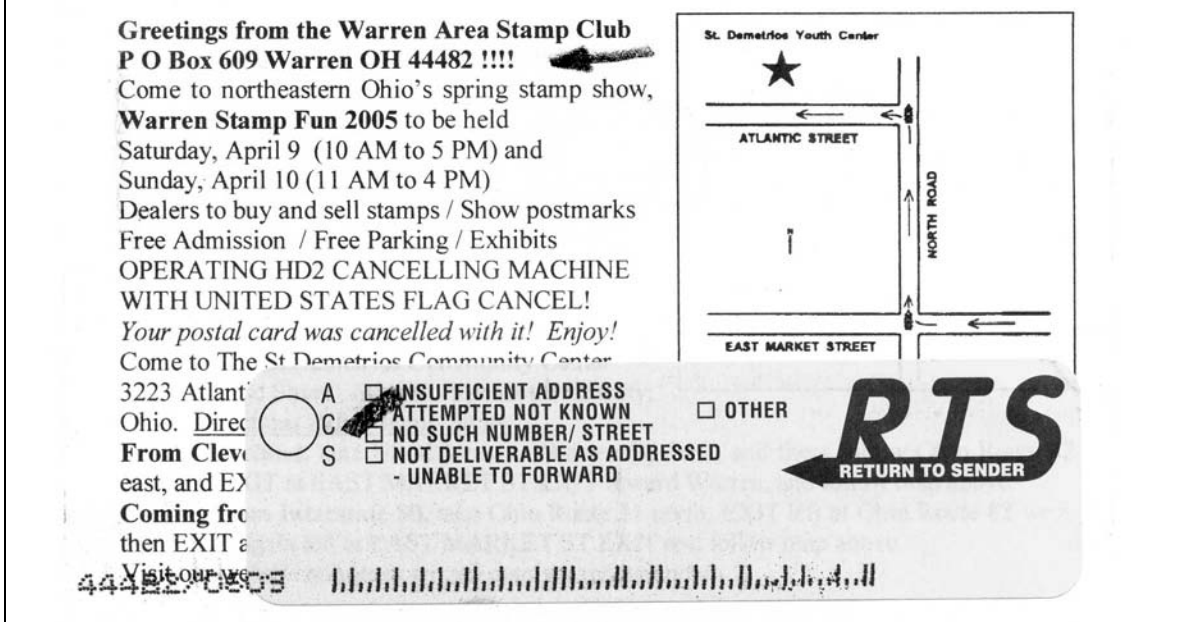


Figure 2 (above): The USPS data bank was unable to automatically track this mail back to the sender, and was possibly manually detected by a carrier. A sticker was placed over the address part and manually noted as ATTEMPTED NOT KNOWN.

Figure 3 (below): The return address is found manually on the back of the card, and is noted with a black arrow, again probably by the carrier. Now the system can add a bar code for the return back to the sender.



In a recent article by Michael Ludeman published in the January 2006 issue of *Auxiliary Markings*, he explains these labels. Anthony Wawrukiewicz, member of the Machine Cancel Society and Editor of *Auxiliary Markings*, has promised to place this article on their society web site to allow our membership to have access to this five page article. In exchange, the Machine Cancel Society will post its Ludeman article on its web site. Information on the postings will be made as the information becomes available. The yellow label is generated by “CIOSS (Combined Input/Output Sub System) and it uses a program called PARS (Postal Address Redirection System) to look up invalid addresses and see if there is a forwarding order on file. This PARS system is being implemented at the present time, and is installed/deployed at perhaps half of the P&DCs at the present time. It is replacing the older Computerized Forwarding System (CFS) which started up about 1987.” Michael Ludeman

A Letter Mail Labeling Machine, or LMLM, and is pictured below on July 23, 1998, being installed:



“The LMLM actually serves two functions. First, it applies the white label over the original POSTNET ZIP and Bar Codes at the bottom of the envelope, then it reads the return address and sprays the new POSTNET ZIP Code and Bar Code for the return trip.” -- Michael Ludeman