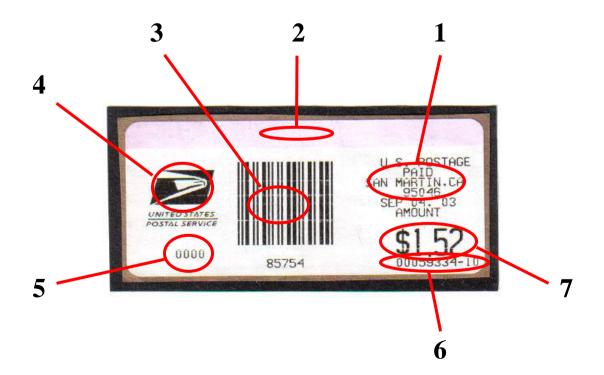
POSTAGE VALIDATION IMPRINTER (PVI)

by Hens A. Wolf, The Netherlands 05-05-2005 last update 18-12-2014

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Introduction

During 1992 the US Postal Service has begun to install franking label machines. which produce self adhesive postage labels with thermo print. These labels are known as PVI (Postage Validation Imprinter). Until 1998 the rates were simply programmed by punching them on a keyboard. After that IBM touch screen computers have been installed gradually, in which the various rates have been pre-programmed.



The first day of use of these machines was **16 April 1992** in four post offices in the San José, CA area: Escondido, Solana Beach, San Marcos and Tierrasanta Postal Store in San Jose. A planned fifth location, Golden Triangle Postal Store in San Jose, started operation on 18 April 1992 due to technical problems. (*1)



The label with text PVI TEST.CA dated 13 April 1992 (three days before the official first day) apparently is a test label from the machine in Escondido.CA (Machine # 00010097)

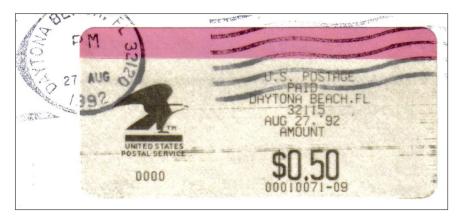


The label without value print is from the same machine. It is used on pieces of mail, on which sufficient postage is affixed already.

After the trial period the labels have been introduced gradually as of the end of June 1992. More than 85,000 units are in operation now.

(*1) From the United States Postage Meter Stamp Catalog, 1994 by Joel A. Hawkins and Richard Stambaugh, see <u>http://en.wikibooks.org/wiki/International Postage Meter Stamp Catalog</u>

My earliest label is from Daytona Beach dated 27 AUG 1992.

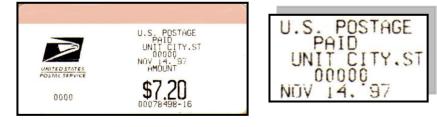


To get acquainted with the machine, the postal workers back in 1992 got an instruction manual. A lady in one of the post offices was so kind to hand over some pages out of her manual with labels that she had printed during her training on 20 November 1992.



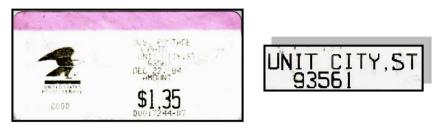
1. Texts on the labels

The machines are supplied with a standard text. The postmaster of a particular post office has to program the name of the City, the State and the zip code of the post office. If the programming has been omitted, one may receive an envelope with a PVI with the text: UNIT CITY (= the city where the unit/post office is located), ST (= the state) and 00000 (= the zip code of the post office) (*2)



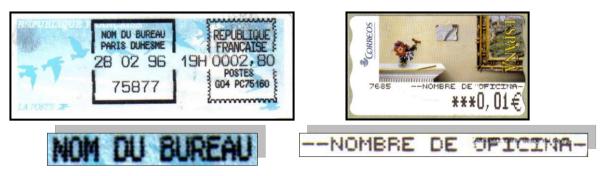
(*2) See the list with abbreviations of the 50 States in the ANNEX under 1.

On a faded label from 22 December 1994 the city name was not programmed, but the zip code of the post office was.



I have found this omission also on postage labels of other countries, such as the **French** label with the text NOM DU BUREAU (= name of the post office). Instead, the name of the post office PARIS DUHESNE should have been programmed, not underneath it.

On the **Spanish** label the NOMBRE DE OFICINA (= name of the post office) should have been programmed too.



1.1. Text city and state names

On some postage labels the city name is abbreviated, like SF.CA (San Francisco. CA) and NY.NY (New York. NY).

On some postage labels the state abbreviation is printed twice. Examples: city name, followed by MI.MI or VA.VA. I even found one with NY NY.NY.



A printing error occurred in LITCHFIELD PARK.AZ on 11 October 2007. The machine first printed .AZ, then consumed the first two letters of the town name (LI) en then printed TCHFIELD, so .AZTCHFIELD. As comparison I show the normal text 1½ years previously.



Also interesting is the text WASH D.C..DC



1.2. Text errors

In 2007 I found a PVI from 1996 with an incorrectly spelled city name. The second C in CINCINNATI.is missing.





Other misspellings are FRMINGTON.MI .MI instead of FARMINGTON.MI.





1.3. Maximum amount of letters

On the postage label there is room for a maximum of 15 letters for the city name, like NORTH LAS VEGAS, followed by a dot and two letters (.NV) for Nevada, a total of 18 positions. A city name like ATLANTIC HIGHLANDS.NJ is too long: the letters NDS don't fit on the label.





1.4. Special locations

1.4.1. Army locations

Several post offices are not located in the 50 States, but within Army locations elsewhere in the world. Army personnel can bring in personal mail there and postage labels are being used just as in regular post offices in the US.

APO means "Army Post Office" and is used by U.S. Army and U.S. Air Force

FPO means "Fleet Post Office and is used by U.S. Navy, U.S. Marine Corps and U.S. Coast Guard. The label FPO.AE 09588 is from USS TOTUGA.



There are three quasi state codes associated with APO-addresses:

- AE (Armed Forces in Europe, Canada, Middle East, and Africa), ZIP codes 09XXX
- AP (Armed Forces in Asia Pacific), ZIP codes 96XXX
- AA (Armed Forces in the Americas, except Canada), ZIP codes 34XXX

AE 090-092 Germany, AE 093 Contingency, AE 094 United Kingdom, AE 095 Ships, AE 096 Italy, Spain, AE 097 Other Europe, AE 098 Middle East/Africa

The \$0.80 PVI shown below reads APO for Army Post Office, followed by zip code AP 96258 (Armed Forces Pacific). Enquiries into that zip code revealed the location of a post office in the Bravo Det. 509th Personnel Service Battalion in South Korea..

I also found a PVI with APO.AE (Armed Forces Europe). The postal code indicates the US base, in this case AE 09012 = Ramstein Air Force Base. AE 09096 = Wiesbaden Air Force Base and AE 09464 = Shefford BEDFORDSHIRE, ENG(not pictured here).



The next PVI doesn't read APO.AP, but it shows the name of the Army location itself. It comes from SIGONELLA.IT, the suffix IT suggesting that ITALY is one of the United States. Sigonella is a US Navy base on Sicily, postal code 09631.



A similar label comes from YOKOSUKA.JA, on which JA stands for JAPAN. These varieties literally open up a new PVI-world.



1.4.2. Overseas territories

In May 2007 I wrote letters to post offices in parts of the world of which I thought they might fall under American Authority and therefore might use American postage labels. From Saipan, capital of the Northern Mariana Islands, I received an envelope with a PVI from SAIPAN, MP 96950.



From Pago Pago, capital of American Samoa, I got a PVI with postal code AS 96799. In Barrigada, GU 96921, on Guam and in St. Thomas, Virgin Islands (VI 00802) American labels are used too.

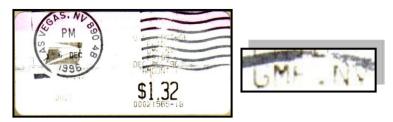


1.5. Other special texts

On a label from Portland.ME I found the prefix MOWU which led to other intensive inquiries with a final result: MOWU stands for Main Office Window Unit.



On a label from **6 December 1996** the abbreviation GMF.NV is printed. It concerns the **General Mail Facility**, GMF Window Section, 1001 E Sunset Rd, LAS VEGAS, NV 89199.



2. The pink stripe

F 13				
	e relativ strate			
/9ci		STREE		U.S. POSTAGE PAID

On the top side of the label is a 6 mm wide pink stripe. It is fluorescent and reacts to ultraviolet light. During the years various differences in colour have appeared like shiny red, dull red, violet, light pink, etc. Moreover I have noticed a stripe of only 4 mm, as well as labels with a 7 mm stripe.

In April 2005 I received an envelope with five Purple Heart stamps and an additional postage label for the total amount of \$2.67 for certified mail. Surprisingly enough the pink stripe was on the lower side of the label.

On 10 June 2008 the label roll was upside down in the printer in Winter Haven, Florida.





3. Destination codes

3.1. Domestic destinations

On labels for domestic mail usually the zip code of the destination is printed as a bar code. Underneath the bar code the zip is also printed in digits. The label from Temecula CA was sent to the destination zip code 93463, which is the village of Solvang CA. To verify that zip 93463 stands for Solvang CA, look at the next label, which is from Solvang CA, 93463. These codes do not appear on labels for mail outside the USA until Oct. 2005 (chapter 3.2).



There are also labels with vertical stripe codes for flats. The more complete the zip code of the destination is, the longer the stripe code. A short code stands for destination 02825 (Foster.RI), a longer code for 93463-2961 (a particular street in Solvang CA) and a complete code for 85614-2314-45 (a street + house nr. in Green Valley AZ). (*3).

Several years later this stripe code was removed from the programme. The last label with such a code in my collection is from N MANCHESTER, WV dated 15 July 2010.





On a package from Maine.NY I found a new phenomenon. Next to the PVI of **5 December 2005** sat a separate label with only a barcode. Underneath the barcode the *domestic* code of destination is printed (85728). This label enables patrons to follow the delivery path of the package on the USPS track & trace system. This new label was probably introduced in October 2005.



(*3) The signification of the stripe codes is explained in the ANNEX under 3.

This bar code label was also introduced for *foreign* destinations, such as the one from Naples. FL to The Netherlands (= code 00107). (see also chapter 3.2).



As of **29** April **2011** a sequence of numbers is printed on the barcode labels, which does not relate to either the location of origin or the destination. Also new is the text **USPS TRACKING NUMBER.**



3.2. Foreign destinations

Initially no destination codes appeared on labels for mail outside the USA, but this changed in 2005. On a label dated **20 October 2005** on a registered envelope from Clifton, NJ to The Netherlands the hitherto unknown destination code 00107 appeared. The 0000-code to the left is now 9142 (this code is explained in chapter 5).



I even received an envelope to The Netherlands 00107, on which the old USPS logo with the complete eagle is printed, although the present logo of the eagle head was already introduced in the machines in 1996 (see chapter 4).



Inquiries with the Postal Service revealed that in October 2005 destination codes have been introduced for all countries in the world (*4)

^(*4) See the list with destination codes in the ANNEX under 4.

4. The USPS logo

The unprinted labels come on rolls of transparent sticker paper.



After the machine has printed the logo, text and amount on the label, it comes out of the machine without sticker paper. The label has to be put on a piece of mail right away. There are two types of labels:

a. the type with the picture of the complete eagle 1992-1995;

b. the type with the head of the eagle since 1996. My earliest date is NOV 20, '95.



Even after many years the old USPS logo appears occasionally, such as the label dated 14 JAN 2010 from GREEN VALLEY.AZ.



Also special are the labels underneath without logo and 0000.



On a label from WASHINGTON.KS dated 18 February 2014 the print has shifted to the left to such an extent that part of the USPS-logo of the next PVI is visible to the right.



Sometimes rarities occur such as the enlarged eagle or the zebra print.



5. The four digit code

5a. 0000

Right underneath the eagle four zeros are printed. They have been unused from 1992 to1998

5b. 9100 and 9200 series

From 1998 to 2009 labels exist on which the four zeros are replaced by four digits. My earliest label is from AVON.CT, dated **27 October 1998.** It has code 9160.



These digits represent the kind of mail, such as a Package (code 9242), First Class Mail (code 9261), Priority Mail (code 9262), etc. This should provide an overview of the kinds of mail that have been handled in a specific post office, which may yield important management information. Up to now I have found 32 different codes. (*5)

I do not have information on why the 0000-code has not been used from the beginning. It is my impression that during these years the majority of machines still printed the four zeros.

5c. 1000 series

In the beginning of 2009 (my earliest date: 22 April 2009) the four digit codes have been rearranged as follows:

- 1000 No code First-Class Letters, Flats & SPRs
- 1001 Local NDC Packages
- 1002 Network NDC Packages
- 1003 Network NDC Packages used for directional dispatch
- 1004 Priority Parcel Network
- 1005 Overnight Parcels & SPRs
- 1006 Priority Flats
- 1007 Express



(*5) See the list with the four digit codes in the ANNEX under 5

The labels with codes 1000-1006 have barcodes, the 1007-labels do not.

On the label dated JAN 14, 10 from Green Valley, AZ with code 1000 sits the old USPS-logo which should have been replaced in 1996. An uncommon print shift is from Charlotte, NC. .



Codes 1012 and 1013 do not fit in this scheme. The numbers over 1020 are reserved for local codes, such as 1021, 1022, 1023, 1024, 1025, 1027, 1029 and 1045.





The signification of the codes 0002, 0004, 0005, 0006, 0007 and 0023 still needs clarification.





The codes from the 1000-series also appear on labels with destinations outside the USA, such as 00107 = The Netherlands. Thus labels with foreign destination codes exist with 0000 (see 3.1 bottom), or 9140/9142 (see 3.2) or 1000-1007 (see underneath).



More than two years after the introduction of the 1000-code, a new separate barcode label has been introduced. The first day of use was **29 April 2011** (Internal Bulletin Postal Service). Such a label was already in use for domestic destinations (see 3.1), but on this label is a line of numbers which do not relate to either the location of origin or the destination. Also new is the text **USPS TRACKING NUMBER**.



6. The ten digits

6.1. The 8 digits

Right underneath the amount, eight digits are printed, followed by a hyphen and two more digits. The eight digits stand for the IRT-number of the automat (Integrated Retail Terminal). The first known number dates from the first day of use, 15 April 1992. The numbering apparently has started with 10,000 and the automat in ESCONDIDO.CA had number 7 in that series. In DAYTONA BEACH.FL automats had the low numbers 00010066 and 00010070.

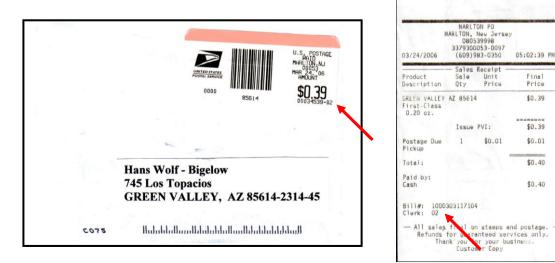


Later, all 10,000-series can be found up to 100,000. In 2009 I noticed number 00099498 on a label from MORRILTON.AR.

The 100,000 was passed in 2006, as can be derived from a label with number 00100855 from SIERRA MADRE.CA.



The two separate digits identify the clerk who has handled the machine. This is shown nicely on the envelope from MARLTON.NJ with receipt. Both the PVI and the receipt show clerk number 02.



Final Price

\$0.39

\$0.39

\$0.01

\$0.40

\$0.40

The cancelled label from PLACERVILLE.CA is also instructive. Both the label and the cancel have the same clerk number 06.



If necessary the Postal Service can trace down the person who has handled a specific piece of mail. The clerk number 00 hereunder is relatively rare. It may be that the clerk has omitted to insert her or his number in the machine. It is also possible that 00 is used by temps, for instance during the Holiday Season.



7. The amount 7.1. TEST-labels \$0.00

In a post office in Arizona I acquired a set of four test labels with the old logo. The machine had trouble printing a label with a bar code that I had asked for, so the clek did a test run. First an unprinted label came out, followed by four different test labels. The amount on the test labels is \$0.00. The labels stuck on each of his fingers. Just before he could destroy them, I asked if I could have them for my collection. Some time later Ι acquired a set of test labels with the present logo in New Jersey.



And of course test prints can turn out to be misprints.



7.2. Normal labels \$0.00

The test prints should not be mistaken for regular PVI's with the amount \$0.00. These may be used on pieces of mail, on which the correct postage already has been affixed. In that case the bar code of the \$0.00 PVI is used to facilitate the processing of the mail to the ZIP code of its destination.



After the attacks of 9/11/2001 and the problems with the anthrax letters, it was decided that envelopes or packages of more than 12 Oz. could not be put in a letter box anymore, but had to be presented at the post office. After approval by the clerk, a PVI with the regular rate and a \$0.00 PVI are put on the envelope.



Rarely \$0,00 prints appear with a red stamp SPOILED to prevent abuse of postage labels.



7. Highest amount?

I have always wondered if the machines could print amounts over \$100.00, so with three digits before the dot. In 2007 an acquaintance gave me a PVI that came just \$0.30 short. It lasted until 2014 when I found a label with an amount over \$100.00.



8. Validity

The labels are only valid on the day of issue. They are usually not cancelled. Nevertheless a clerk sometimes handcancels them or they go through a cancel machine in a central postal facility.

On a label dated 20 December 2004 from Peterborough, NH, sits a cancel with a misspelling in the town name. The second O of PETERBOROUGH is missing.



9.

Used or mint

The labels cannot be taken off the envelope without damaging them just like for instance the French, Norwegian, Portugese and Spanish labels. Soaking does not work. They should be cut off the envelope or the whole envelope should be saved.

The labels of the four aforementioned countries can be collected mint as they come out of the machine on sticker paper. The US labels though come out without sticker paper. They are supposed to be put on a piece of mail right away. If one wants to collect mint labels, one should bring his own sticker paper to the post office.

10. Other use of the labels

On some packages I found labels that have been used in practice to put stamps with different texts on them or handwritten notes. I doubt whether this is in line with the instructions of the Postal Service, but it sure comes in handy for the clerks





On a Christmas package dated 12 December 2008 from St. Louis, MO I found an upside down label with the red print INTERNATIONAL.



Text stamps are also used to emphasize the kind of mail, such as PARCEL POST, STANDARD MAIL and MEDIA MAIL.



11. Warning

PVI's are very sensitive to light and warmth. The thermo print on the labels may fade during the years, even under normal circumstances. The best way to protect them is to put them in a dark, cold place. It is also advisable to make computer scans of the labels to preserve documentation in case of fading imprints on PVI's.

ANNEX

26. MT = Montana

29. NE = Nebraska

33. NV = Nevada

35. OH = Ohio

34. NY = New York

36. OK = Oklahoma

39. RI = Rhode Island

42. TN = Tennessee

43. TX = Texas

44. UT = Utah

45. VA = Virginia

46. VM = Vermont 47. WA = Washington

48. WI = Wisconsin

50. WY = Wyoming

49. WV = West Virginia

40. SC = South Carolina 41. SD = South Dakota

37. OR = Oregon38. PA = Pennsylvania

27. NC = North Carolina

30. NH = New Hampshire 31. NJ = New Jersey

28. ND = North Dakota

32. NM = New Mexico

(*2) Abbreviations of the 50 states

01. AK = Alaska02. AL = Alabama03. AR = Arkansas04. AZ = Arizona05. CA = California 06. CO = Colorado07. CT = Connecticut08. DE = Delaware09. FL = Florida10. GA = Georgia 11. HI = Hawaii 12. IA = Iowa13. ID = Idaho14. IL = Illinois 15. IN = Indiana 16. KS = Kansas17. KY = Kentucky18. LA = Louisiana19. MA = Massachusetts 20. MD = Maryland 21. ME = Maine22. MI = Michigan 23. MN = Minnesota24. MO = Missouri 25. MS = Mississippi

- Others
- 51. AE = Armed Forces Europe
 53. JA = Japan
 55. PR = Puerto Rico
 57. GU = Guam
 59. VI = Virgin Islands
- 52. AP = Armed Forces Pacific
 54. DC = District of Columbia
 56. AS = American Samoa
 58. MP = Northern Mariana Islands
 60. IT = Italy

No use of PVI's is known in FM = Federated States of Micronesia, MH = Marshall Islands, PW = Palau.

(*2.2) Double abbreviations of state names in my collection

BIG RAPIDS MI.MI	49307	26 Oct. 04
BONAIRE GA.GA	31005	10 Dec. 07

BRIDGEPORT CT.CT	06606	18 Dec. 96	
CHESHIRE CT.CT	06410	20 Sep. 01	
CLIFTON NY.NY	14432	25 Feb. 99	
COLCHESTER IL.IL	62326	17 July 02	
HAYES VA.VA	23072	12 Aug. 03	
HEWITTNJ.NJ	07421	25 July 01	
HOUSATONIC MA.MA	01236	10 Jan. 11	
JACKSON NH.NH	03846	24 Feb. 11	
JERSEY SHORE PA.PA	17740	05 Mar. 03	(info Jim Stark, USA)
KINGSLAND GA.GA	31548	9 Dec. 03	
LINCOLNTON NC.NC	28092	11 Feb. 08	
MARLTON NJ.NJ	08053	22 Dec. 03	old eagle
MASTIC NY.NY	11950	22 June 93	old eagle
MILAN MO.MO	63556	17 Mar. 03	C
MILL HALL PA.PA	17751	26 Jun. 00	
NANTICOKE PA.PA	18634	29 Mar. 00	
NEW MADISON OH.OH	45346	21 Dec. 08	
PETERSTOWN WV.WV	24963	03 Nov. 10	
RINGGOLD LA.LA	71068	29 Dec. 10	
SEARCY AR AR	72143	24 Nov. 95	
SAN ANTONIO TX.TX	78230	30 Dec. 94	old eagle
SAN JUAN PR.PR	00902	04 Jan. 95	old eagle manco
SEATTLE WA.WA	98106	21 Jan. 93	old eagle
WALDORF MD.MD	20601	31 Oct. 97	C
WASH D.CDC	20520	02 Dec. 97	
WEST FARGO ND.ND	58078	16 Dec. 02	
WWARREN MA.MA	01092	05 Dec. 00	(info Jim Stark, USA)
		· · · · · · · ·	() - · · · · · · · · · · · · · · · · · ·

(*3) Signification of the stripe codes

hallaldalahalah

The stripe code above is meant for zip code18081 and is composed as follows:

- the first and last stripe are always long.
- Each digit of the zip code consists of five stripes, composed as follows:

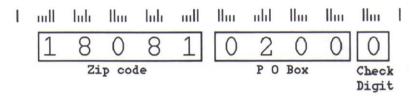
$\ _{111} = 0$	= 5
= 1	$ _1 = 6$
uld $=2$	= 7
= 3	= 8
=4	հհ =9

• An extra digit is added to the zip code as a check on mistakes. The extra digit always makes the total amount of the digits a multiple of 10. In the case of 1+8+0+8+1 = 18, an extra 2 is added to make it a total of 20.

• The stripe code consists of a total of 2 + 5x5 + 1x5 = 32 stripes and in the case of 18081 it looks as follows:

1 mll lub llu lub mll ubl 1 1 8 0 8 1 2

• In case of zip code 18081-0200 (additional PO Box number), 20 stripes are added to the 32 initial stripes. The total amount is 1+8+0+8+1+0+2+0 + 0 = 20. In this case a 0 is added to make keep it a multiple of 10. This prolonged code looks as follows:



(*4) Destination codes outside the USA

Codes in	my collection:	
00105	Denmark	(info Jim Stark, USA)
00106	Germany	
00107	The Netherlands	
00108	Belgium	
00109	Luxemburg	
00113	Austria	(info Jim Stark, USA)
00114	San Marino	
00117	Andorra	
00118	Finland / Åland	
00121	Malta	
00122	Great-Brittan	
00124	idem	(info Jim Stark, USA)
00126	Ireland	(info Jim Stark, USA)
00132	Estonia	
00133	Latvia	
00134	Lithuania	
00141	Slovenia	
00149	Albania	
00153	Cyprus	
00159	Armenia	
00171	Bhutan	
00195	United Arab Emirates	
00206	Egypt	
00231	Ethiopia	
00260	Madagascar	
00290	Canada with zip code	
00293	?	(label of S. Zijlstra)
00294	Canada with a different zip code	
00296	Canada	(info Jim Stark, USA)
00299	Canada without zip code	
00401	New Zealand	
00404	Australia without zip code	
00405	Australia with zip code	
00408	Japan	

 00418
 China

 00448
 Surinam

 00453
 Bolivia

 00457
 Chili

 00484
 ?

 00495
 Mexico

(info Jim Stark, USA) (sent to NL; on envelope in my collection)

(*5) Four digit codes I (1998 – 2009)

9120 Package May 2005 to Portugal 9128 GXG (Global Express) 9129 GXG Guaranteed to Canada 9130 9131 9132 GPM (Global Express) 24 Feb 2000 to NL 9139 GXG Guaranteed to France 9140 9141 (info Jim Stark, USA) (info Jim Stark, USA) 9142 see chapter 3.2. 9146 Printed matter surface mail to Europe 9150 Package air mail to The Netherlands 9156 Package surface mail to Europe 9160 9170 Printed matter air mail to Europe 9206 Book rate to South Africa 9240 Flat 9241 Parcel Post 9242 Parcel Post + surcharge 9243 Printed Matter 9244 Media 9245 Library Rate 9251 Local ZIP Tucson Express Mail 9252 Outside of Arizona 9261 1st Class 9262 Priority mail (zone Virginia) 9263 Flat 9264 9265 9267 Priority (zone Oregon) 9268 Certified mail 9269 Fast Signature Confirmation 9270 Flat rate box priority 9280 Blind rate

9999

(*5) Four digit codes II (as of April 2009)

1000 First Class Letter/Envelope 1001 1002