

**USPS-LR-I-195**

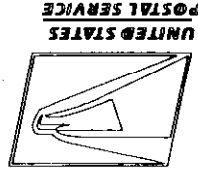
**Materials Provided in Response to  
MPA/USPS-T10-3 (Kingsley)**

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## FLATS DAY



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### FLAT PROCESSING EQUIPMENT

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#### Flat Sorting Machine 881 - 814 Units

- Bar Code and Optical Character Readers
- 100 Bin Separations
- Potential addition of automatic feeders

## FLATS DAY

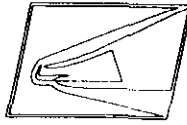
### FLAT PROCESSING EQUIPMENT



**Flat Sorting Machine 1000 - 353 Units**

- Bar Code Readers
- 100 Bin Separations
- Plan to add automatic feed and OCR
- Deployment Plan: Mid-2001

## FLATS DAY



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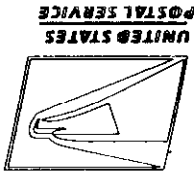
## FLAT PROCESSING EQUIPMENT

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- Automated Flat Sorting Machine (AFSM) 100
  - Processes all 881 size mail
  - 3 automatic feeders
  - Over 17,000 pieces per hour throughput (Potential)
  - Siemens OCR and Video Coding System
  - On-line video coding
  - 120 bin separations
  - Tray takeover conveyors connected to powered buffer conveyors and skatewheel. Will interface with TMS/robotics
  - Maintenance Diagnostics

# FLATS DAY

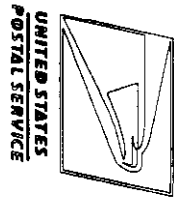
## Automated Flat Sorting Machine 100



Status - 175 Machine buy - purchased for additional capacity needs

- Pre-Production Test  
Ended Jan.27, 2000
- Baltimore- Life cycle
- First Article InplantTest -  
February 1, 2000
- First Article Field Test-St.Paul  
March 6, 2000
- Deployment Start  
March 18, 2000
- Complete Deployment  
December 2000

\* Must meet all machine specifications for damage, throughput, accuracy, and mis-faced rates



# FLATS DAY

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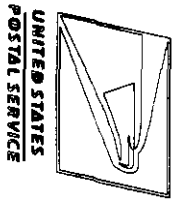
## PROCESSING STRATEGIES

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Drive costs down by processing mail in the most efficient manner

Cost per thousand (est.)

<b>AFSM 100-</b>	<b>\$15</b>
<b>FSM (OCR/BCR)-</b>	<b>\$34</b>
<b>FSM (keying)-</b>	<b>\$60</b>
<b>Manual-</b>	<b>\$94</b>



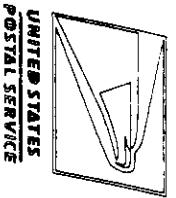
## FLATS DAY

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### PROCESSING STRATEGIES

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- **Current Flats Processing**
  - **Automation - 40% of Total Flats Processing**
  - **Mechanization - 40% of Total Flats Processing**
  - **Manual - 20% of Total Flats Processing**
  
- **43% of Total Incoming Secondary Processed Manually (Plants) at \$94 per 1000**



## FLATS DAY

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### **COST REDUCTION STRATEGIES**

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- **Move all Automation Candidate Flats to Automation; Reduce Processing Costs**
- **Centralize and Automate all Incoming Secondary Zones with Sufficient Volumes**
- **Set Automation Performance Standards**



## FLATS DAY

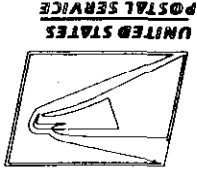


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## COST REDUCTION STRATEGIES

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- Reduce Labor Costs
- Make Staffing Adjustments
- Reduce Workforce by 17-23 FTEs per Machine
- Minimize Manual Operations

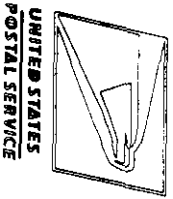


## FLATS DAY

Deploy (approx.) 400 AFSMs - 881 Replacement

### Plan

- Requirements call due February 2000 (FARM)
- Board Approval July 2000
- Continuation of existing production line
- 6 units per week deployed starting January 2001
- Finish Deployment May 2002
- Replace 2 or 3 FSM 881s per AFSM 100



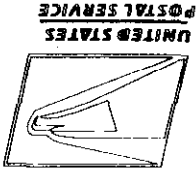
## **FLATS DAY**

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### **Deploy (approx.) 400 AFSMs - 881 Replacement**

#### **Planning Issues**

- **AFSM enhancements**
  - **Incorporation of Automatic Tray Handling System**
  - **Addition of ID tag Printer**
  - **Stacker Requirements (120-240)**
  - **Smaller AFSM- 60 stackers, 1-2 feeders**
- **Facility space**



## FLATS DAY

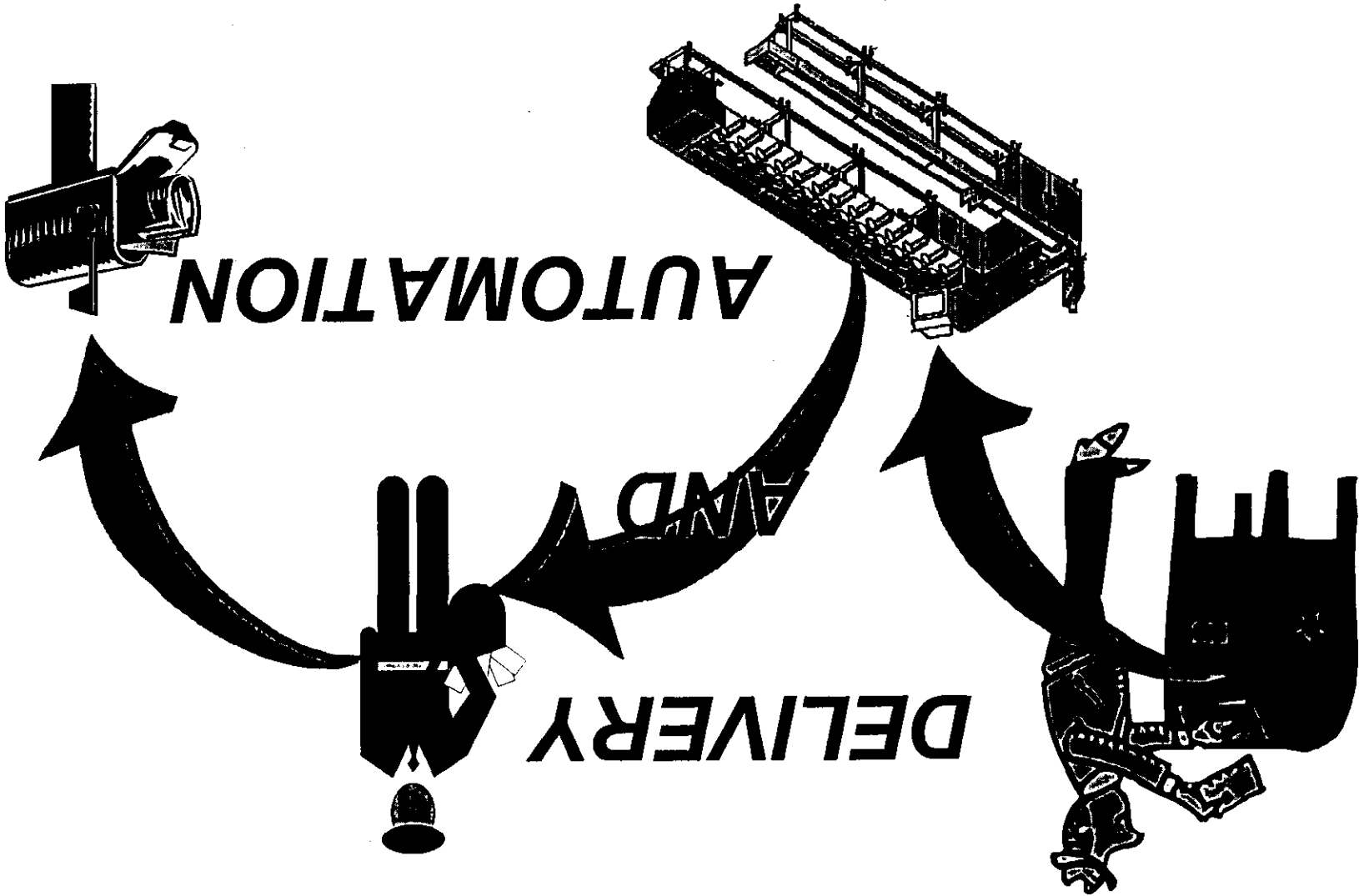
### Flats Strategy

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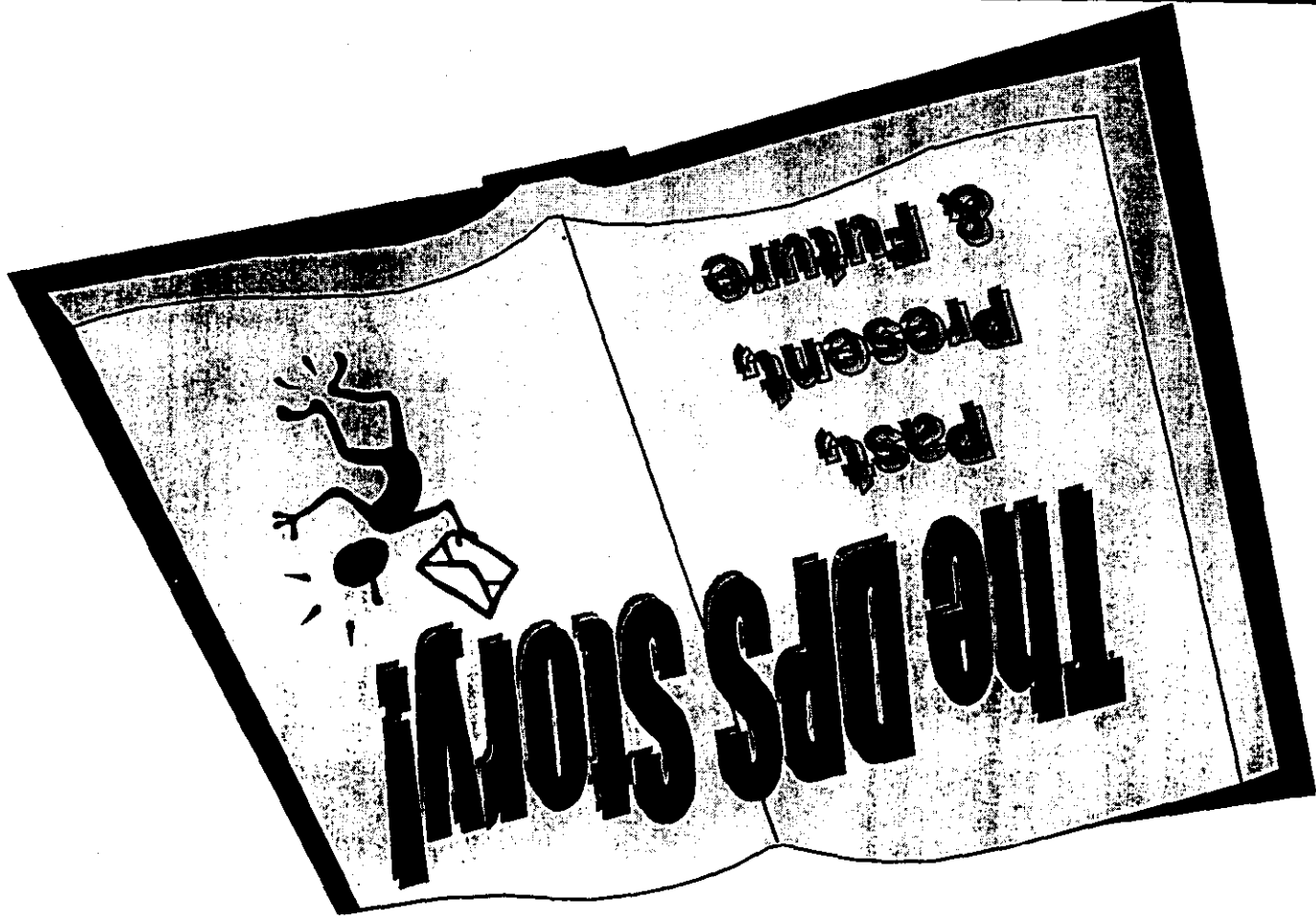
#### Planning Issues

- Automatic feeders to FSM 881
- FSM 881 redeployment and disposal
- 40 bin FSM 881 available
- Plan to incorporate automatic feeders and OCR capability to FSM 1000
- FSM 1000 reallocation
- CONFIRM/PLANET Code read from all flat machines
- Capture of savings - staffing/labor issues



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**“CHALLENGE 2000”. PLANNING TO SUCCEED**  
**Why Delivery Point Sequence ?**





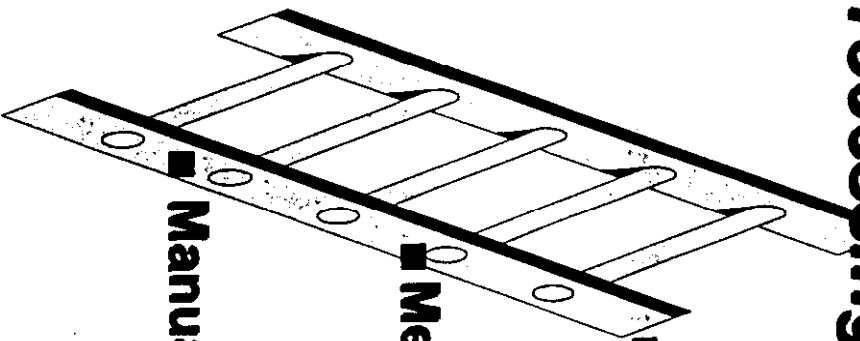
# **“CHALLENGE 2000” PLANNING TO SUCCEED**

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## **LETTER AUTOMATION OVERVIEW**

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### ***Processing Cost Per Thousand Letters***



- **Automation - \$5.39 Per Thousand**
- **Mechanization - \$27.69 Per Thousand**
- **Manual Sortation - \$44.94 Per Thousand**

**“CHALLENGE 2000” PLANNING TO SUCCEED**

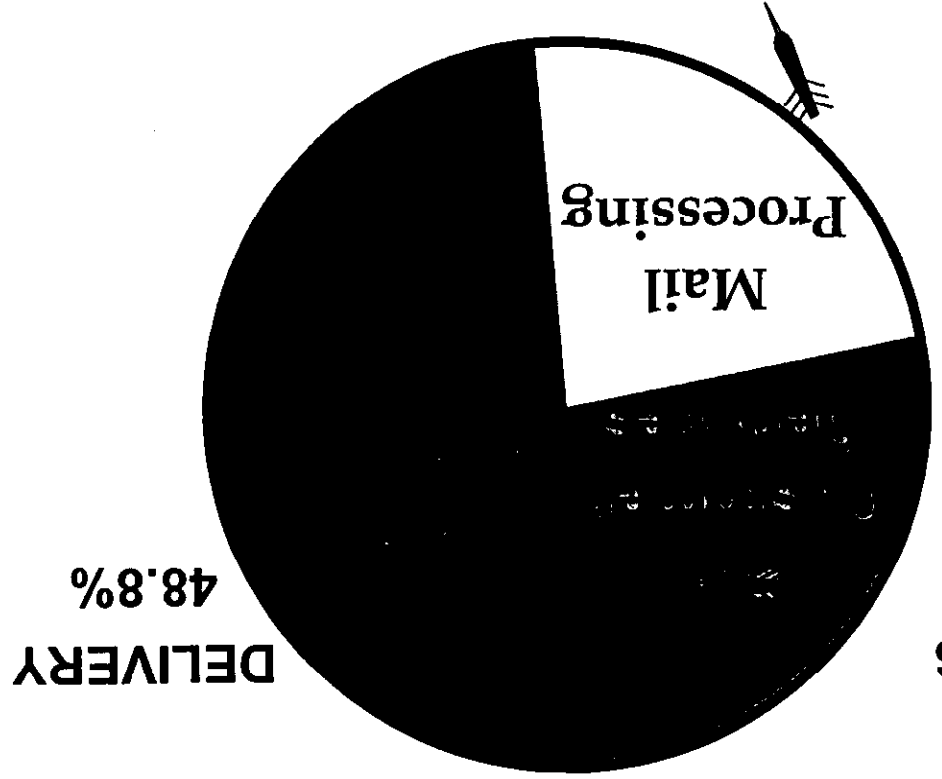
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**AUTOMATION OVERVIEW**

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**Manual Distribution Hours**



**CUSTOMER SERVICES**  
27.9%



**MAIL PROCESSING**  
23.3%

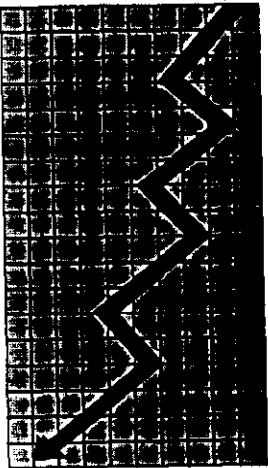




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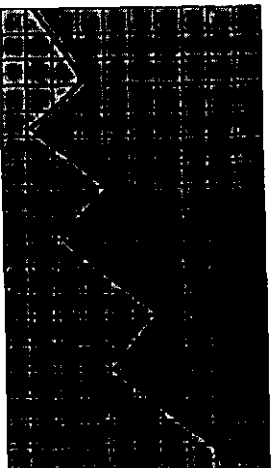
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*Workhour Reduction*



**“Challenge 2000”  
Planning To Succeed**

*Service Improvements*



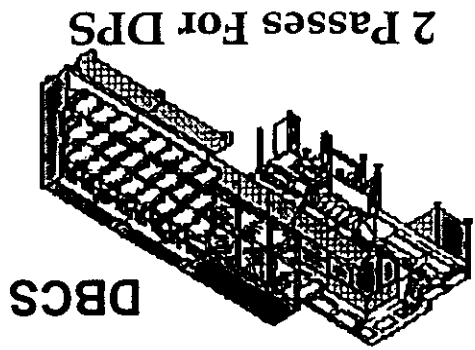
**"CHALLENGE 2000". PLANNING TO SUCCEED**

**Letter Barcode Sorters**

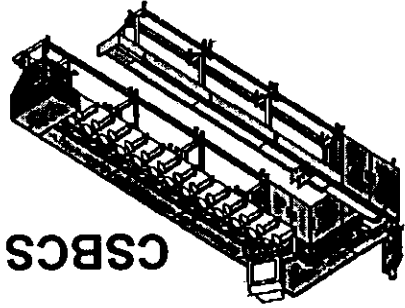


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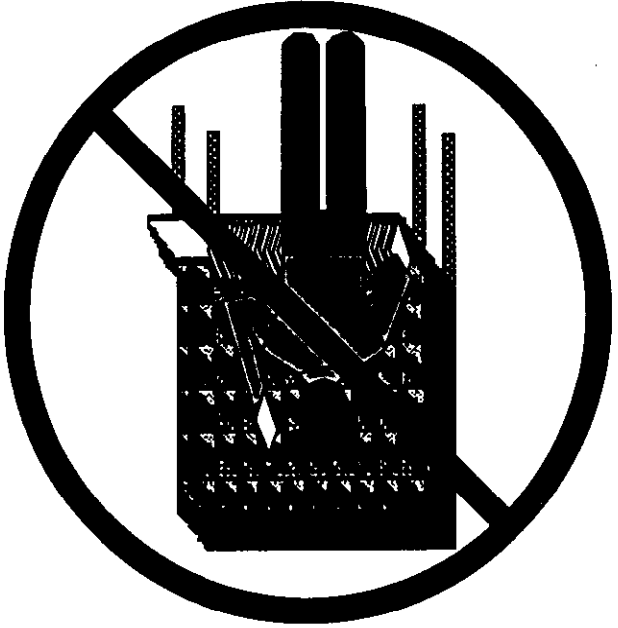
**30,000 + Pieces Per Hour vs. 859 Pieces Per Hour**



**2 Passes For DPS**



**3 Passes For DPS**



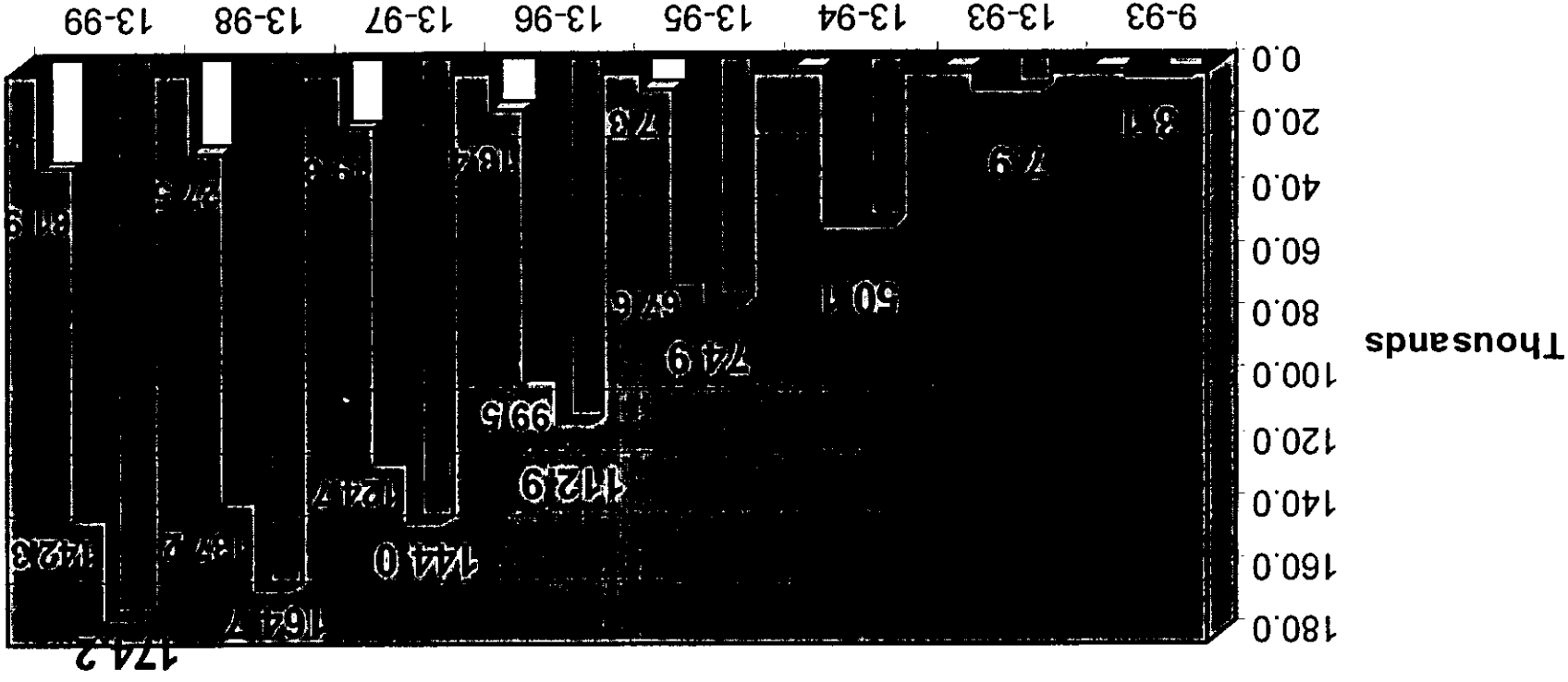
# "CHALLENGE 2000" PLANNING TO SUCCEED



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## DPS Routes

■ Total DPS Rts. ■ DPS City Routes □ DPS Rural Routes

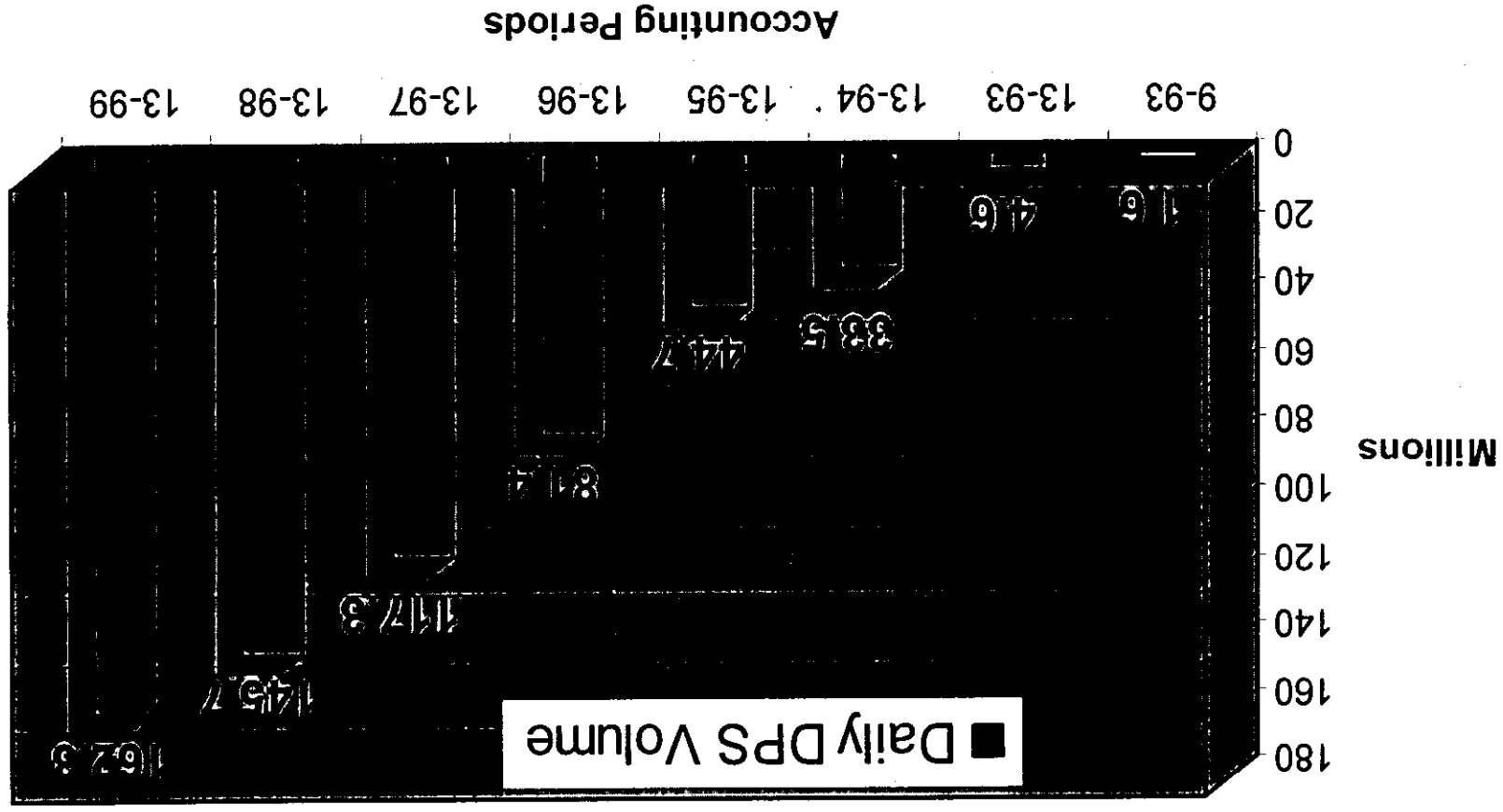


Accounting Periods  
Did Not Start Counting Rural Routes Until A/P 1-95

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**Daily DPS Volume (City Routes Only)**

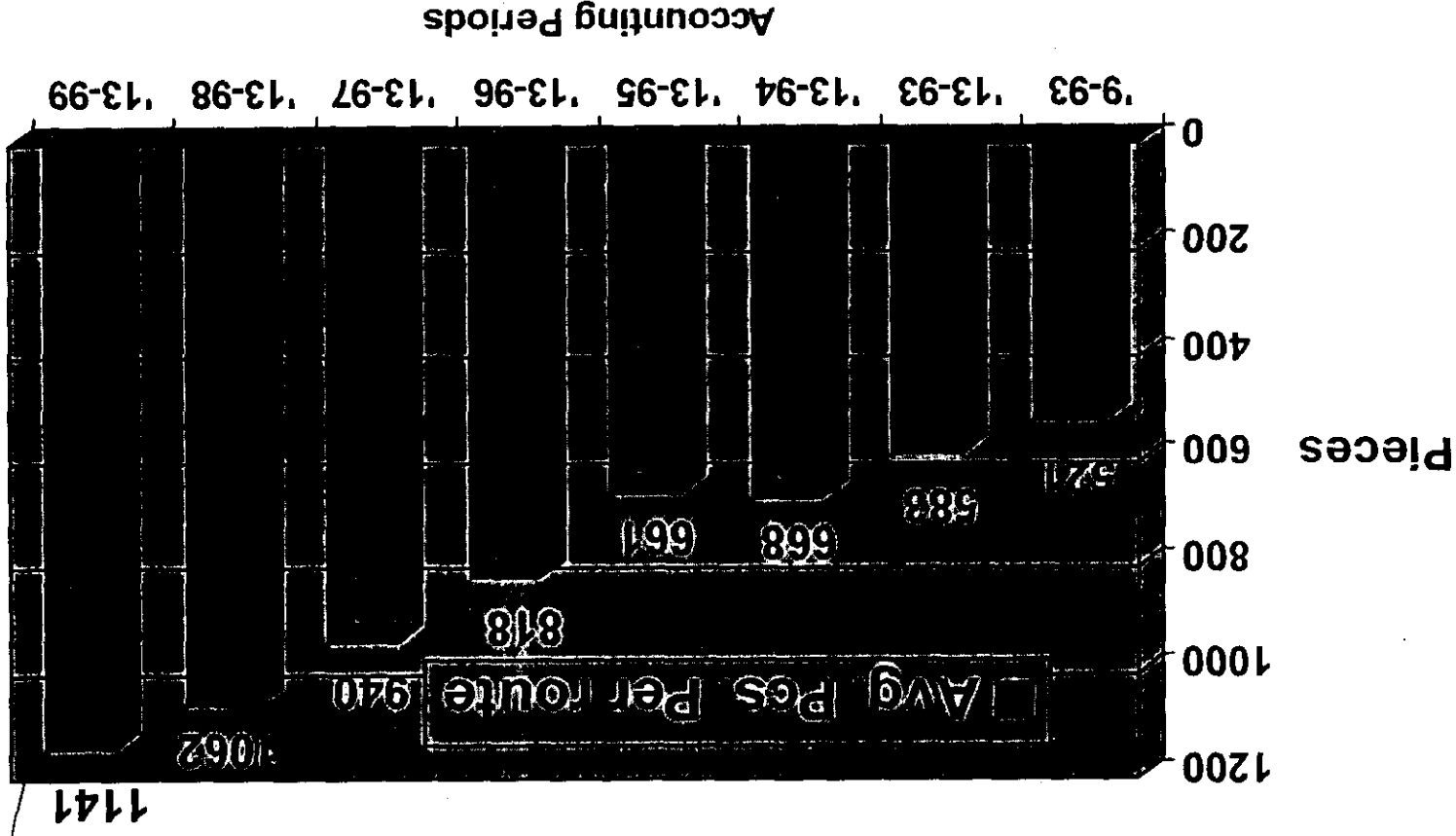


# "CHALLENGE 2000" PLANNING TO SUCCEED

## Average Daily DPS Pieces Per City Route



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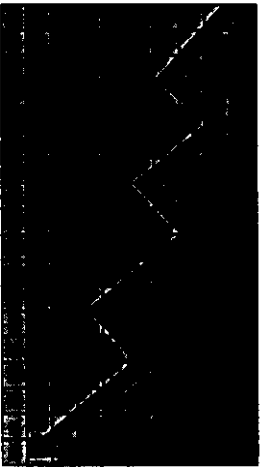




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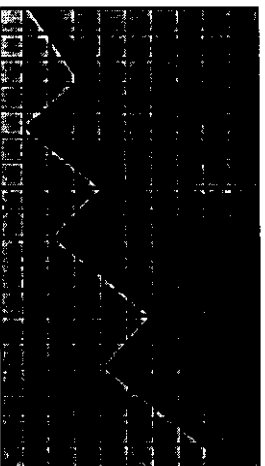
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***Workhour Reduction***



***Planning For Success  
“The Benefits”***

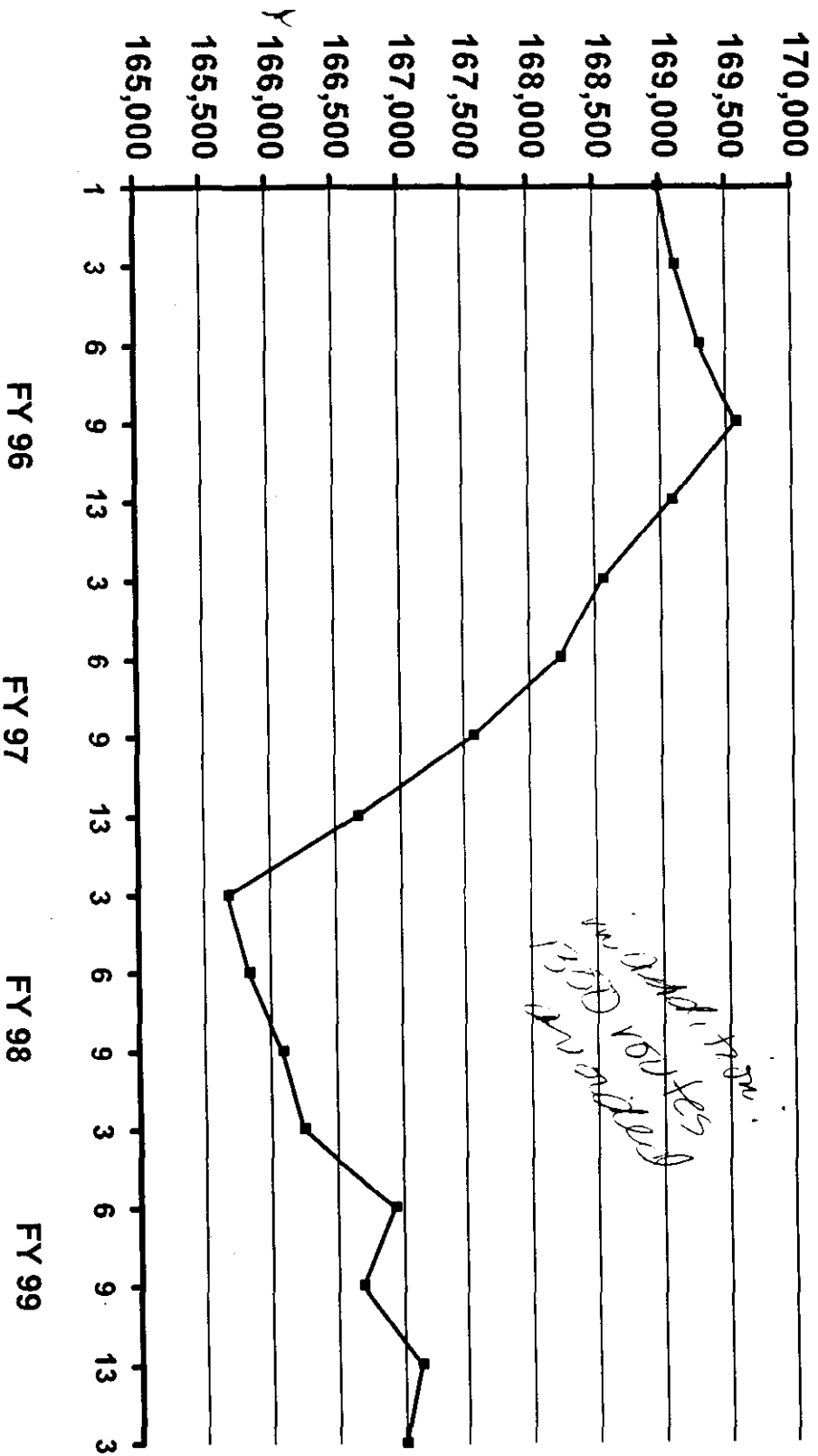
***Service Improvements***





# "CHALLENGE 2000" PLANNING TO SUCCEED

## City Carrier Route Trend



**"CHALLENGE 2000" PLANNING TO SUCCEED**

**The Automation Arena**



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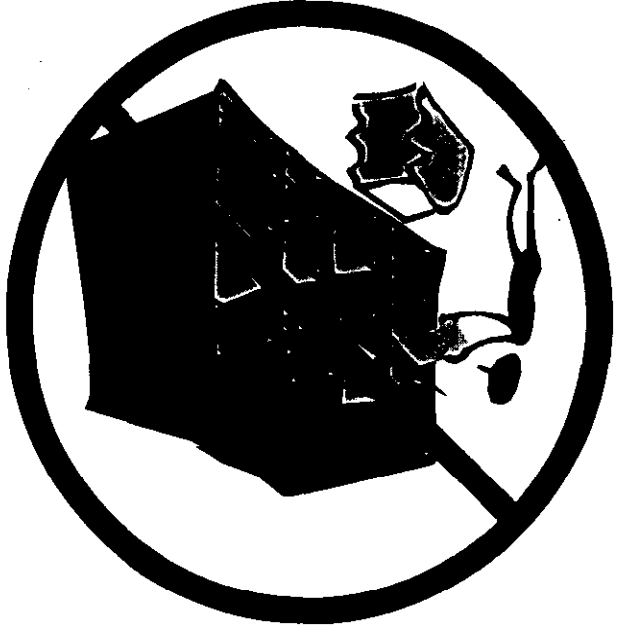
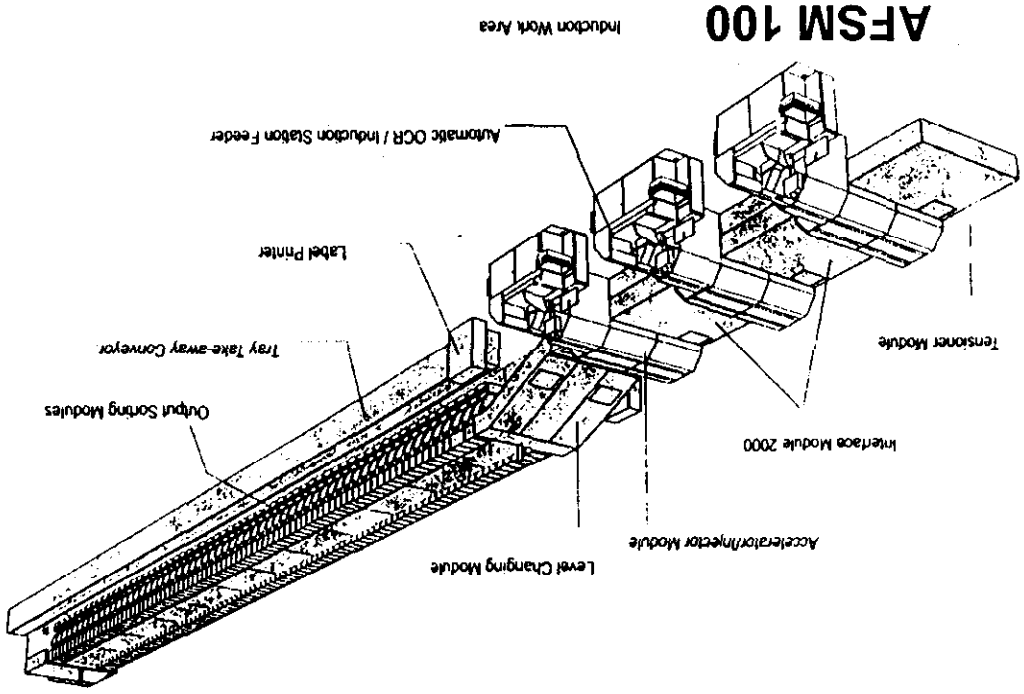


# "CHALLENGE 2000" PLANNING TO SUCCEED

## Automated Flat Sorting Machine



17,000 + Pieces Per Hour VS. 500 Pieces Per Hour





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# **“CHALLENGE 2000” PLANNING TO SUCCEED**

## **Implementing DPS (Similar Requirements)**

### **DPS Letters**



- ✓ Provide Training
- ✓ Capture DPS Candidate Mail
- ✓ Return Non-Committed Mail to Plant
- ✓ Maximize Processing Windows
- ✓ Increase the Number of Routes Receiving DPS
- ✓ Increase the Amount of DPS Mail Per Route
- ✓ Capture the Savings

### **DPS Flats**



- ✓ Provide Training
- ✓ Capture DPS Candidate Mail
- ✓ Return Non-Committed Mail to Plant
- ✓ Maximize Processing Windows
- ✓ Increase the Number of Routes Receiving DPS
- ✓ Increase the Amount of DPS Mail Per Route
- ✓ Capture the Savings



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# "CHALLENGE 2000" PLANNING TO SUCCEED

## DPS Letters vs. DPS Flats (Differences)

### DPS Letters

- ✓ Fairly Standard Size, Shape & Material
- ✓ Address/Label Near The Same Location
- ✓ Address Normally Parallel To Bottom Of Letter
- ✓ Large Percent Have Customer Applied 11 Digit Bar Code
- ✓ Capability To Apply 11 Digit Bar Code/ ID Code
- ✓ Most Letter Mail Can Be DPS
- ✓ Equipment Available To DPS

### DPS Flats

- X Large Variance In Size, Shape, & Material
- X Minimal Standards For Label Location
- X Minimal Standards For Label Orientation
- X Minimal Number Of Flats Have 11 Digit Bar Code
- X Presently Have No Capability To Apply Code
- X ? Flats Can Be DPS *Handwritten note: -Handwritten note: 02/20/00*
- X No Proven Equipment (DPS)



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# "CHALLENGE 2000" PLANNING TO SUCCEED

## DPS Letters vs. DPS Flats

### DPS Letters

✓ Functioning Program



### DPS Flats

X Lots Of Unknowns

- \* Delivery/Plant Impacts Based On S/S and/or DPS Flats
- \* Impact On The Carrier Ease/Difficulties In Handling Office and Street
- \* Transportation
- \* Presentation
- \* Bundle Issues
- \* Need To Modify Carriers Satchel / Equipment ?
- \* % Of Mail Captured
- \* Savings Opportunities vs. Cost



**Flats Day** February 8, 2000

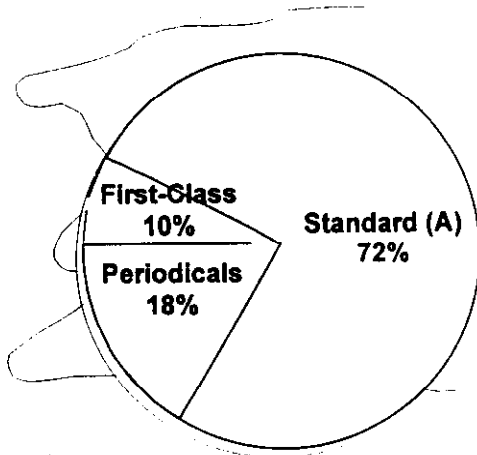
## Flat Volume Characteristics and Pending Make-up Changes

**Flats Day**  
February 8, 2000  
Operational Requirements



**Flats Day** February 8, 2000

## Flat Volume by Class

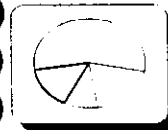


**52.491 billion pieces of flat mail in FY 1998 (RPW)**



**Flats Day** February 8, 2000

- **Carrier Route Presort - 50 % (26.144 B)**
  - 41% in Walk Sequence
  - 44% in Line of Travel
  - 15% Carrier Route
  
- **Non-Carrier Route Presort - 50 % (26.347 B)**
  - Barcoded - 56 % (14.624 B)
  - Non-Barcoded - 44 % (11.723 B)
    - First Class - 44 % (5.109 B)
    - Periodicals - 22 % (2.578 B)
    - Standard A - 34 % (4.036 B)



**Flats Day** February 8, 2000

**Pending Mail Preparation Changes for Flats**

- Offshore mail to ride-along on DBMC pallet
- Prepare ASF pallets for non-DBMC entry
- Package Reallocation option to protect BMC pallet
- Option to combine barcode and presort (non-barcode) packages in containers
- Require carrier route to be separate from all 5-digit
- 5-Digit AMS exception list option



**Flats Day** February 8, 2000

### **Offshore Proposal**

**Two DMM lists currently for Std (A) on BMC pallets**

■ **L601**

- Std (A) Letter Trays & Flats entered at origin
- Service area ranges include offshore ZIPs
- ASFs are not listed (listed under the parent BMC)

■ **L602**

- Defines makeup & rate eligibility for DBMC mail
- Service area ranges do not include offshore ZIPs
- ASFs are listed



**Flats Day** February 8, 2000

### **Offshore Proposal**

■ **Result of two DMM Labeling Lists:**

- Presort software uses L601 for mailings entered at origin and L602 for mailings that are drop shipped
- Offshore mail relegated to origin entry with L602
- ASF pallets created only when L602 is used

■ **Proposing one list to address current problems**

- DBMC eligibility moves to section E

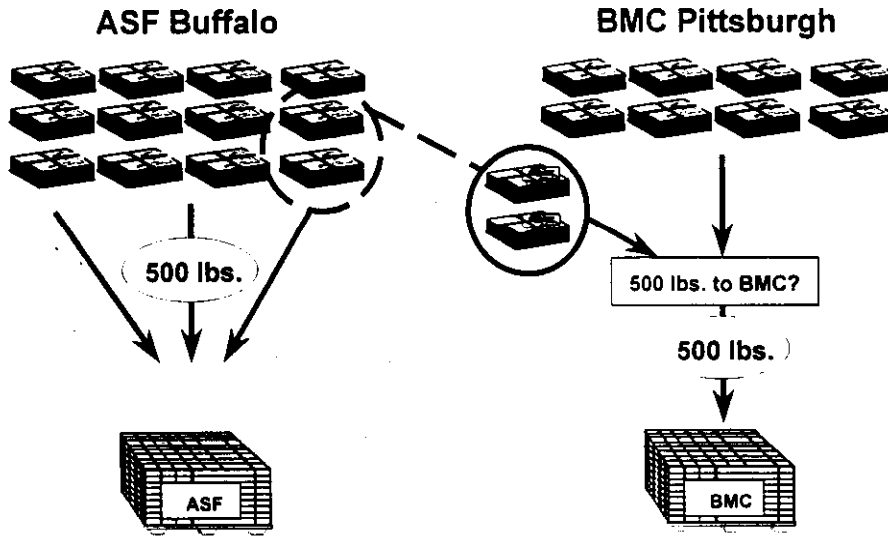
■ **Adding package reallocation option to protect BMC pallet when ASF pallet is made**

- To minimize sacks



Flats Day February 8, 2000

**Package Reallocation to Protect the BMC Pallet**



Flats Day February 8, 2000

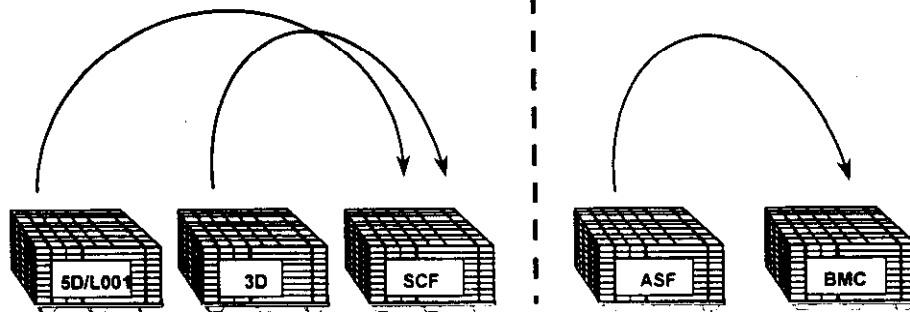
**SCF & BMC Protection are mutually exclusive**

**SCF Protection**

- Extensive Scope
  - Target = All SCFs
  - Source = 5D/L001 & 3D Pallets

**BMC Protection**

- Limited Scope
  - Target = 5 BMCs
  - Source = 8 ASFs







Flats Day February 8, 2000

**Summary of components**

COMPONENT	OPT/REQ	PAVE Software
L605 - prep for STD A fts/ltrs	Required	No
PR to protect the BMC pallet	Optional	Yes
DBMC Eligibility in section E	Required	No
L605 for STD B @ DBMC rates	Required	No
Elimination of L602	Required	No



Flats Day February 8, 2000

**Auto / Presort - Three components**

- Allow packages of barcoded and non-barcoded flats to be combined in the same container
  - Allowed today on 3D, SCF, ADC, BMC pallets only
- Require segregation of 5-Digit packages of flats from CR-RT packages at 5D level
- Establish an exception table in the AMS City/State product that can be used as a new option
  - Identify 5-digits where segregation is not required
  - Allow 5D & CR-RT flats to be placed in one 5-digit container for those ZIPs identified as exceptions

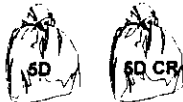


Flats Day February 8, 2000

**Flats Makeup for All Levels Of Sacks**

**CURRENT**

Non-Barcoded Flats



Barcoded Flats



**PROPOSED**

Non-Barcoded/Barcoded



CR-RT



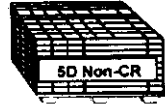
Flats Day February 8, 2000

**Required Makeup for 5-Digit Pallets**

**CURRENT**



**PROPOSED**





**Flats Day** February 8, 2000

**Exceptions to the CR-RT Segregation Requirement**

- **Segregation is only needed for some ZIPs**
  - 5-digit flats are worked in a different location from where the CR-RT flats are worked (majority of vol.)
- **Will establish an exception field in the AMS City/State Product for optional use**
  - Allow mailers to forego segregation of CR-RT flats for certain 5-digit ZIP Codes if exception table allows
  - File to reflect 2001 environment with phase I AFSM deployment
  - Dynamic similar to 5D scheme for auto letters



**Flats Day** February 8, 2000

**Exception Table in the AMS City/State Product**

**Sample Table**

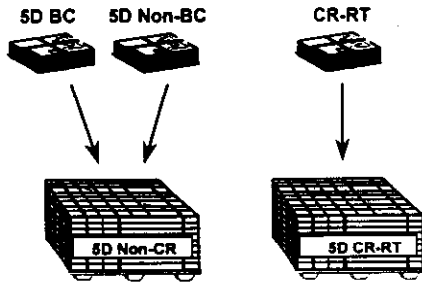
<b>ZIP Code</b>	<b>COMBINE 5D &amp; CR-RT? (Carrier Route Indicators)</b>
28601	N
28602	N
28603	N
28604	Y
28605	Y
28606	Y
28607	Y



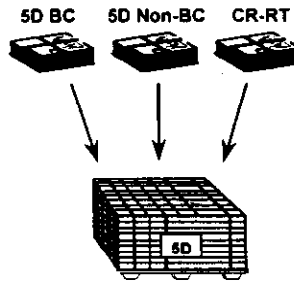
Flats Day February 8, 2000

Combine 5-Digit & CR-RT Flats in Same Container?

No



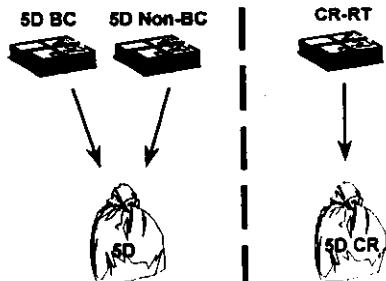
Yes



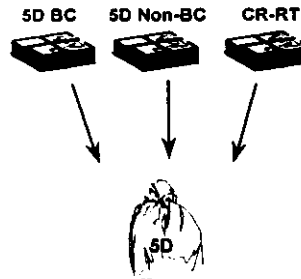
Flats Day February 8, 2000

Combine 5-Digit & CR-RT Flats in same container?

No



Yes





Flats Day February 8, 2000

### Combining of Auto / Presort - Key Points

- Sacks
  - Package based rates for barcoded flats
  - Container based rates for non-barcoded flats (result may be packages in finer level container)
- Must use PAVE-certified software to utilize the option to combine barcoded/non-barcoded in the same container and AMS 5D exception list
- Reduce sacks
- Place the 5D working mail where incoming secondary processing occurs



Flats Day February 8, 2000

### Current Makeup of Flats (including L001)

	CR-RT	5D Non-BC	5D BC
28201		→	→
28202		→	→
28203		→	→
28204		→	→

↓



Flats Day February 8, 2000

**Proposed Makeup (including L001 & AMS Table)**

	CR-RT	5D Non-BC	5D BC	AMS
28201				Y
28202				Y
28203				N
28204				N

Diagram showing arrows from the CR-RT column pointing to an L001 sack, and arrows from the 5D BC column pointing to 5D sacks.



Flats Day February 8, 2000

**L001 and the AMS Exception Table - Key Points**

- **L001 remains applicable for only 5-Digit CR-RTs sacks**
  - L001 will not be extended to all 5-digit sacks
- **Use of the exception table provides mailer with the option to place 5-digit packages in the 5-Digit/L001 CR-RTs sack**
  - For mailings prepared in sacks, the mailing must contain CR-RT mail in order to utilize L001 and/or the exception table
- **Must use PAVE-certified software to utilize the AMS exception table**



Flats Day February 8, 2000

No CR-RT mail for a given L001 combination?

	CR-RT	5D Non-BC	5D BC	AMS
28201				Y
28202				Y
28203				N
28204				N

Diagram showing L001 bags and 5D bags with arrows pointing to the corresponding rows in the table above.



Flats Day February 8, 2000

Summary of components

COMPONENT	OPT/REQ	PAVE Software
BC/Non-BC in same container	Optional	Yes
Segregate CR-RT from 5D flats	Required	No
Makeup using exception table	Optional	Yes