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CATEGORY 3&4

UNITED STATES POSTAL SERVICE®

Corporate Flats Strategy

Prepared by Operations Planning and Processing

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INTRODUCTION

The United States Postal Service (USPS) has been very successful in automating the distribution of letters thereby stabilizing postage rates by reducing processing costs. At the beginning of the letter automation process, single-line Optical Character Reader (OCR) equipment replaced less efficient and lower quality mechanized Multi-Position Letter Sorting Machines. With the introduction of Multi-Line OCRs, Bar Code Sorters (BCS), and later the Remote Bar Coding System, most letter mail could be sorted to the carrier route level using automation. This helped to offset rising labor costs that would ordinarily have resulted in higher rate increases. Subsequently, Delivery Point Sequencing (DPS), i.e. preparing mail in the order that the carrier effects delivery, was implemented and dramatically reduced carrier in-office work hours. The result is that, although letter volumes have increased significantly over the past five years, automation and DPS have allowed the Postal Service to keep letter postage increases below the rate of inflation.

Unfortunately, there have not been the same opportunities to improve flats operations. While it's true that the wide range of physical characteristics and preparation requirements (e.g., six-piece minimum packages required for Periodicals) of flats present unique challenges to automation efforts, the fact remains that flats' processing and delivery costs have grown steadily, resulting in price increases that have exceeded the rate of inflation. To meet the pledge of keeping mail service affordable, the Postal Service is committed to achieving the types of breakthrough performance in the handling of flats as it did for letters. This document describes the Postal Service's plans to achieve that overall objective.

Recognizing that there are significant opportunities to improve cost trends by better managing existing operations, the flats strategy begins with a review of the efforts under way and those planned to improve flats operations in the near term (FY 2001 through FY 2003). Following that review, the focus shifts to the longer term with an introductory section on the delivery vision for the future. That vision extends the benefits of automation to carrier in-office activities (i.e., DPS) and ultimately includes combining letters and flats in one Delivery Point Package to significantly improve street efficiency. The decision points and activities necessary to determine the feasibility of achieving that vision are discussed in this section of the document.

As with the letter automation plan, the Postal Service anticipates that changes in strategy and tactics will be necessary as circumstances warrant and options are added or eliminated from consideration. This document will be updated regularly. Comments and/or questions related to a specific topic can be directed to the appropriate functional group. Comments pertaining to the plan in general should be directed to Operations Planning and Processing at Postal Service Headquarters.

NEAR TERM FY 2001 TO FY 2003

IMPROVING CURRENT FLATS OPERATIONS

Recent trends in flats processing and delivery costs have resulted in substantial rate increases for Standard and Periodicals class flat shape mail. Standard Mail is second only to First-Class Mail in total contribution. It is also a product line subject to substantial competition and is therefore price sensitive. Periodicals Mail, while contributing significantly less to the USPS bottom line, is the mailbox "anchor". That is, it is a product that consumers order, look forward to receiving and therefore one that adds to the overall value of the mail.

To ensure that these and other flat-shaped products remain affordable, actions must be immediately taken to mitigate recent cost trends. This section of the flats strategy addresses those activities that will improve operating performance in the near term (FY 2001 – FY 2003). Those actions fall into the following general categories: deploying and utilizing automated equipment, reducing mail preparation costs, standardizing operational processes, improving manual productivity, tracking performance, capturing savings, and adjusting complement.

1. DEPLOY FLAT SORTING EQUIPMENT

The many different characteristics of flat mail mean that more than one type of processing machine is needed for distribution. Deployments of the FSM 775 and FSM 881 were the first attempts to mechanize the distribution of machinable flat mail. Efforts to maximize the volume of flats sorted on automation were hampered by a lack of machine capacity. The FSM 1000 deployment did not achieve the goal of replacing manual flats processing. Faced with the need to process an increasing volume of machinable flats, the processing centers often used the FSM 1000 to sort this mail rather than manual flats. Since there was no alternative in place, manual flat processing continued. In order to increase the distribution capacity and efficiency for flats, the Postal Service began deploying the Automated Flat Sorting Machine (AFSM) 100. These machines have automatic feeders, BCR/OCR capabilities, and on-line video coding. The current AFSM 100 deployments will fully address machine capacity needs throughout the entire system.

Utilization of the AFSM 100 has demonstrated that a large number of FSM 881s can either be relocated or excessed[1] without negatively impacting operational performance. This conclusion has resulted in a continuous review of the criteria and rationale used to deploy the AFSM 100 and to re-deploy the FSM 881 and possibly the FSM 1000. The machine reallocation efforts are based on mail volumes and potential system savings. These efforts also consider space requirements, staffing levels, maintenance support availability, and work practices. At the time this document was prepared, the number of FSM 881s that would be retained, once the second AFSM 100 deployment is completed, was estimated to be less than 120.

[1] Many of the FSM 881s will not be fully depreciated until FY 2007. This factor will be considered in the decision to relocate or excess these machines.

The table below provides information concerning the projected end-of-fiscal year national equipment inventories. It is important to note that even though the total number of FSMs will be reduced during the near term, the overall system processing capacity will increase due to the higher throughput of the AFSM 100.

FLAT SORTING MACHINE INVENTORIES			
	FY 2000	FY 2001[2]	FY 2002[3]
AFSM 100	107	355	534
FSM 881	814	480	114
FSM 1000	353	353	353
Total	1,274	1,188	1,001

2. UTILIZE EQUIPMENT TO MOVE FLAT MAIL UP-THE-LADDER

The Postal Service is taking steps to move all machinable and FSM 1000 compatible flat volumes away from manual distribution to more efficient automated operations. The "up-the-ladder"[4] approach, using tools developed during letter automation, will serve as a measure of operational efficiency. Incoming secondary operations that process flats manually in both the processing centers and customer service units offer the greatest opportunity for reducing costs. Centralizing the distribution of machinable flats from associate offices, stations, and branches into locations that have the AFSM 100 will ensure that its use is maximized and that Function 4 workload is reduced.

The table below lists the Postal Service's "up-the-ladder" targets:

Up-the-Ladder Utilization Targets for Mail Processing Units				
(FY 2001)	AFSM 100	FSM 881	FSM 1000	Manual
Volume Processed	35%	43%	14%	8%
Workhours Used	9%	59%	18%	14%

The additional processing capacity of the AFSM 100 permits increased use of the FSM 1000 to process volumes traditionally sent to the manual distribution operations. Planned improvements to the FSM 1000 include adding an Optical Character Reader (OCR) and an Automatic Flats Feeder (AFF). The OCR will be able to sort over seventy percent of the non-barcoded flats now being keyed. In addition, the AFF modification will increase the overall throughput and productivity of the machines by eliminating manual feed.

[2] Several of these numbers may differ from other published data. This is due mainly to adjustments in the deployment/redeployment schedule. Also, these numbers do not include machines, or machine sections, purchased for training purposes only.

[3] If operationally required, the actual number of FSM 881s may exceed the level shown in the FY 2002 column.

[4] The "up-the-ladder" program focuses on using the FSMs (the most efficient level of distribution) to process flats instead of manual (the most costly and least efficient form of distribution).

The table below lists the national volume processing targets for each type of FSM:

FY 2001 Targeted Performance Volume Processed per AP per Machine	
AFSM 100	6.0 million pcs.
FSM 881	2.0 million pcs.
FSM 1000	1.5 million pcs.

As additional AFSM 100s are deployed, the Postal Service will increase the amount of flat mail finalized to the incoming secondary (carrier route) level on the FSMs. The table below provides the national targets:

FY 2001 Targeted Performance Zones and Routes Sorted on the FSMs	
Zones	8,800
Routes	137,475

The AFSM 100 uses Video Display Terminals (VDTs) to sort non-OCR readable flats, which virtually eliminates scheme keying and related training requirements. The Video Coding System (VCS) provides the functionality required to key mail piece images that could not be finalized or sorted by the BCR/OCR on the AFSM 100. The VCS should not be considered as a replacement or substitution for OCR finalization. Additional information can be obtained from the AFSM 100 Standard Operating Procedures, which is located on the Postal Service's WEB site. To quickly implement technological advancements, the OCR vendor has an incentive clause in the deployment contract contingent on delivering readability improvements.

The table below provides the national AFSM 100 performance and operational targets for FY 2001:

AFSM 100 BCR[3]/OCR/VCS Operations Targeted Performance		**Outgoing & 3 Digit**	**Incoming Secondary**
BCR/OCR Read Rates:	First-Class Mail	80 to 85%	75%
	Periodical & Standard Mail	93 to 97%	93 to 97%
VCS Image Finalization Rate		95%	95%
VCS Console Image Productivity		1,000	750
VCS Keystrokes per Image		3 to 5	8 to 10

[3] The BCR (Bar Code Reader) acronym is interchangeable with the aforementioned BCS (Bar Code Sorter).

3. REDUCE FLAT MAIL PREPARATION COSTS

Unlike letters, the majority of flat mail cannot be taken directly from the opening units and acceptance points to the FSMs, especially the AFSM 100, for processing. Some form of mail preparation (e.g. removing bundle banding, tray banding, or plastic wrap) must occur prior to distribution. Flats must be faced with addresses and bound edges properly oriented. While incoming secondaries are permitted to mix classes of mail during distribution, in most opening units Periodicals are prepared separately from Standard Mail to ensure service expectations are met. Controlling the preparation costs for each mail class will drive down overall costs. The Postal Service is actively working with Mailers Technical Advisory Committee (MTAC) workgroups to study and resolve issues related to reducing mail preparation costs.

In the processing centers, the Postal Service is taking action to control and reduce the number of workhours used in mail preparation opening units. A unique MODS operation number (035) identifies and tracks the time spent preparing mail for the AFSM 100 only. Consideration is being given to using this MODS operation number for all flat mail preparation activities in FY 2002. If this proves successful, a similar approach may be applied to other mail preparation and opening unit operations.

4. STANDARDIZE FLATS PROCESSING OPERATIONS

The Postal Service has issued the AFSM 100 Standard Operating Procedures (SOP) and a separate National Standardization Guide (NSG) for AFSM 100 processing. The intent of these documents is to standardize how flats are processed and distributed throughout the entire system on the AFSM 100. The NSG explains critical processes that a site must implement in order to achieve projected savings. The NSG and SOP provide references to all other documentation that has been published in support of the AFSM 100. Another item used to ensure process standardization is the AFSM 100 checklist[6]. This document is used to certify that a site is following best practices. The Process Management System will be used to identify and distribute best practice tools and standard operating procedures to reduce costs associated with everything from machine utilization to staffing and scheduling. Areas of savings opportunities are prioritized so that the field concentrates on those operations with the greatest payback.

Even though attention is focused primarily on the Function 1 processing centers and facilities, many of the methods used to improve performance and reduce costs can also be applied to Function 4 offices.

The table below lists the Postal Service's FSM productivity goals for the near term:

Targeted Performance: FSM Productivity (Total Piece Handlings/Workhours) All Operations	
AFSM 100	2,600 pcs/hr
Total AFSM 100 Productivity (Preparation/Machine/Video Coding)	1,500 pcs/hr
FSM 881	574 pcs/hr
FSM 1000	603 pcs/hr

[6] Copies of this checklist are available from HQ Processing Operations and each Area In-Plant Support office.

5. TRACK FLATS OPERATIONS PERFORMANCE

To keep focus on the operational performance improvements that were previously described, the Postal Service has developed a set of key indicators against which national and area performance can be measured. These performance indicators were developed with input from the area managers of In-Plant Support, Delivery Programs Support, and Operations Support.

6. CAPTURE SAVINGS

As stated earlier, the Postal Service has committed to reduce the costs associated with flats processing. This will be accomplished using two methods: 1) achieving the budgeted workhour savings associated with programs and machine deployments, and 2) implementing local and national initiatives to increase productivity. These methods proved successful when used during the automation of letter processing and will work equally well with flats. The following table provides the budgeted impact of the flats processing related programs:

Projected Savings/Cost From Flat Mail Automation[7] Expressed as Workhours	FY 2001	FY 2002	FY 2003
AFSM 100 (1st deployment)	4,232,959	1,184,074	0
AFSM 100 (2nd deployment)	951,940	7,247,894	2,269,358
Automated Package Processing System (APPS)	0	0	533,185
FSM 1000 Automated Flat Feeder and OCRs	(1,288)	792,355	780,850
SPBS Feed System (228 buy)	244,455	8,422	0
SPBS Feed System (37 buy)	22,148	0	0
TMS, Phase 3	835,424	603,810	147,537
Universal Transport System	(4,656)	34,986	5,168
Total	6,280,982	9,871,541	3,736,098

[7] Workhour savings are incremental by year and not cumulative. Because of the continually changing operational environment, adjustments are periodically made to the various programs. Therefore, the numbers provided in this table may change during the fiscal year.

7. ADJUST COMPLEMENT

As the Postal Service moves toward a more automated flats environment, each manager must correctly gauge the transition to minimize any negative impacts on employees, service, and costs. The Postal Service cannot afford to deploy flats processing equipment and readability improvements unless the affected complement is appropriately adjusted and reduced. The table below lists the potential Full Time Employee (FTE) equivalent reductions that can be obtained from the flats program:

Potential FTE Reduction From Flat Mail Automation Workhour Savings Programs[6]	**FY 2001**	**FY 2002**	**FY 2003**
AFSM 100 (1st deployment)	2,369	663	0
AFSM 100 (2nd deployment)	533	4,056	1,270
Automated Package Processing System (APPS)	0	0	298
FSM 1000 Automated Flat Feeder and OCRs	-1	443	437
SPBS Feed System (228 buy)	137	5	0
SPBS Feed System (37 buy)	12	0	0
TMS, Phase 3	468	338	83
Universal Transport System	-3	20	3
Total	3,515	5,524	2,091

[6] The numbers contained in this table were calculated by dividing the potential savings/cost of each flats related program by the average hours allocated for a full time equivalent employee. This table should only be used as a comparison point for the program savings. Actual complement impacts/reductions should be obtained using the procedures contained in the collective bargaining agreements. It is important to note that there may also be impacts to non-bargaining unit employees.

8. OTHER RELATED ACTIONS

Additional actions currently underway include:

A. Maintenance and operational practices are closely related and directly influence equipment performance and the resulting processing effectiveness and efficiency. In order to optimize this operational relationship, the Automation Performance Improvement (API) initiative[*] was developed. The API utilizes process management strategies and operations/maintenance teamwork to support continuous improvement in both the operation and maintenance of automated and mechanized equipment. The API provides near real-time feedback of performance metrics that can be used to evaluate system efficiency.

B. The AFSM 100 deployments in conjunction with the relocations of both FSM 881s and FSM 1000s create new possibilities for networking flats. The Postal Service will work toward identifying opportunities to improve mailflow between facilities that will result in reduced costs and improved service. The existing Automated Area Distribution Center (AADC) letter flows will be examined to determine what actions would be required to apply this same concept to flats. While the flats volume may not warrant a full AADC network similar to that used for letters, a partial AADC flats network may be advantageous.

C. All types of flat sorting machines are part of the Postal Service's Information Platform. The Corporate Flats Strategy will leverage proven technologies and knowledge-based information systems to improve productivity in the flats operations. It includes capital investment commitments toward the acquisition of automation equipment, information technology systems, and R&D programs. Productivity gains will be achieved through new technological method(s) that will maximize the use of machines versus manual labor to process flats. Decision support systems will be developed to enable line management to more efficiently manage mail flows and resources. These complementary operational capabilities will enable the organization to achieve its breakthrough productivity goals.

The Postal Service will further leverage its technological capabilities to produce high-tech, high-quality products and processes. Product enhancements and process improvement will add value to existing products and services. These value-added services, such as CONFIRM, future flats bundle tracking, Delivery Confirmation, Change-Of-Address, and Address Management will be continuously integrated into existing product lines to retain and attract customers, as well as expand to new market segments. Under R&D programs, new delivery and hybrid messaging technologies are currently being researched and developed to further improve efficiencies and potentially create new markets to replace those that will be lost.

D. The Postal Service, along with its vendors, will continue to explore ways to enhance the current fleet of flat mail processing equipment and technology. This includes increasing machine throughput as well as OCR readability. For the AFSM 100, improvements being explored include:

1. Adding additional sort bins to increase the depth of sort allowed.
2. An Automatic Tray Handling System that will enable full trays to be swept, labeled, and replaced with an empty tray automatically.
3. A technology study is being conducted to determine how to place an Identification Tag (ID Tag) on flats. This will enable a mail piece to be resolved (either by the BCR, OCR, or VCS) the first time it's worked on postal flat sorting equipment and have that result stay with the piece through all subsequent handlings.

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[*] Additional information on the Automation Performance Improvement Initiative can be obtained from Engineering. This initiative is mentioned here to demonstrate that many programs targeting maintenance related improvements would also improve flats operational performance.

SUMMARY

The operational key to ensuring the affordability of flats in the short term is to focus efforts on managing the base. That is, the Postal Service must ensure that the existing operations are fundamentally sound. It must be sure that equipment is being fully utilized, manually processed volumes are minimized, productivities are increased, performance is monitored, and the complement is adjusted to ensure that associated savings are fully captured.

Recognizing the significant role that mail preparation and worksharing requirements play in controlling the Postal Service's internal operating costs, the near-term strategy includes significant customer involvement. The following section reviews those near-term actions directed toward increasing customer participation in automation and other worksharing programs.

NEAR TERM FY 2001 TO FY 2003

INCREASING CUSTOMER PARTICIPATION IN WORKSHARING PROGRAMS

Historically, a cornerstone of the Postal Service's efforts to hold down operating costs has been an effective worksharing program. Incenting customers to perform work (presorting, barcoding, etc.) which would otherwise have to be accomplished using postal resources has helped the Postal Service to provide customers with stable rates. As mentioned earlier, affordability combined with service that meets customer expectations is the key to growth and customer satisfaction.

Building on the success of the letter automation program, the Postal Service will continue working closely with the mailing industry on initiatives that improve flats processing operations through reduced handlings and improved efficiency. The Postal Service has ongoing efforts to change preparation requirements to reduce the overall number of containers (sacks and pallets) that must be handled and to ensure that flat mail is directed to the most efficient location for processing.

The Postal Service works collaboratively with the industry on a number of key issues. For example, a joint Mailers Technical Advisory Committee (MTAC) workgroup identified the causes of bundle breakage and recommended changes in requirements and training as appropriate to ameliorate this problem. Another MTAC workgroup is looking into the ways mail preparation irregularities are reported to mailers. This workgroup's goal is to employ a process that lets customers know of problems found in mail makeup, readability, etc., so they can react quickly and correct the situation before their next mailing goes out. A third workgroup is conducting an alternative flats preparation test for Periodicals Flats for the AFSM 100. This workgroup's activities focus on collecting data concerning how flat-sized mailpieces could be prepared to facilitate how they are presented for processing on the AFSM 100.

The following section of the document summarizes many of the initiatives being pursued with customers to improve operating efficiency. These initiatives recognize the importance of ensuring that mail makeup requirements are fully compatible with postal processing and delivery operations.

1. COMMUNICATE WITH CUSTOMERS

It is essential that the Postal Service work closely with customers as it looks for opportunities to reduce costs and create win/win situations. Customer involvement needs to occur at all steps in the process. Their ideas and input are invaluable in developing new programs and enhancing existing ones. Mailer groups like MTAC provide avenues to obtain customer input and feedback. Communicating via other methods such as postal publications (e.g., Memo to Mailers, Mailer's Companion, and Postal Bulletin), Federal Register notices, mailer's association newsletters, Postal Forums, Postal Customer Councils, etc. are critical and will continue to be used.

2. STRUCTURE POSTAGE RATES TO SUPPORT SORTATION AND HANDLING GOALS

Recommending changes in the rate structure to better support the Postal Service's operational needs is an important part of the flats strategy. These changes will serve to encourage customer participation in mail preparation sortation levels and handling methods that are most compatible with postal processing. Areas to be examined include:

- Incorporating the level of packaging/palletization more explicitly in the rate structure.
- Examining the effect of weight and shape on costs and machinability.

- Examining the cost and revenue relationships between subclasses and/or rate cells.
- Examining the pass-throughs of cost savings in workshare discounts.
- Assessing the effect of distance on the transportation costs of flats.
- Determining Drop Ship entry locations based on where sorting is performed.
- Evaluating the selection of categories in the rate structure for flats so that each subcategory reflects its actual cost.

3. MATCH MAIL PREPARATION REQUIREMENTS TO PROCESSING NEEDS

Customer make-up and mail preparation directly affect Postal Service processing costs. A continuing effort must be made to find additional opportunities. Listed below are actions that will be taken to ensure mail preparation matches processing needs:

- Review presort requirements to determine if they adequately support the Postal Service's processes for flat mail. This review will include an examination of existing requirements for container presort levels, package piece minimums, and container weight and piece minimums.
- Review the available presort choices. Until we are able to find an effective means of automatically sequencing flats in the order of delivery as we now do for letters, the most desirable flats category is carrier route presort.
- Reduce bundle breakage through improved customer preparation and Postal Service processing techniques. This effort is supported by DMM changes effective July 1, 2001.
- Determine scheme-based preparation requirements based on automation sort plans (e.g., prepare a 3-digit container only when it adds value, otherwise prepare a 3-digit scheme or SCF container). This effort will help to increase the number of mailer prepared containers sorted to the correct location for processing and reduce container handlings that have no value.
- Move from using pressure sensitive labels to requiring the Optional Endorsement Line (OEL) to indicate package presort level. This will ultimately enable automated sortation of flats packages on Small Parcel and Bundle Sorting equipment that will be modified with the capability to read that information. Many of the larger mailers currently use the OEL and this effort will focus on assisting the small to medium sized customers.

4. IMPROVE ENTRY PROFILE INFORMATION

Drop shipping helps customers to control production and transportation costs. The Postal Service will enhance the AMS Drop Ship file to incorporate processing locations (e.g., annexes) based on shape, class, and presort level.

5. DETERMINE MACHINABILITY STANDARDS

Current flat mail flows are based on a wide range of mail characteristics, as well as the different capabilities of postal machinery. With the deployment of the AFSM 100, a change in machinability requirements may be necessary. In order to determine the impact the AFSM 100 will have, a Mail Characteristics Study is being conducted. This study will examine the overall spectrum of mail (factors to include paper weights, plastic wrap, varied flat sizes, etc.) the AFSM 100 can handle without degradation of machine performance (i.e., throughput, readability, quality, mail damage, etc.).

6. INCREASE CUSTOMER-APPLIED POSTNET BARCODED FLAT VOLUMES

Unlike letters, flats automation is entirely dependent upon customer barcoding. While great strides have been made in increasing the volumes of barcoded flats, the Postal Service still has a long way to go toward a fully barcoded mail stream. More aggressive efforts in identifying and removing impediments to customer barcoding are key elements of the flats strategy in the near term.

The table below lists the projected[10] total flat and non-carrier routed volumes and barcoded flat volumes by class:

Flat Mail (Billions)	FY 1999 Actual	FY 2000 Actual	FY 2001 Projected	FY 2002 Projected	FY 2003 Projected
Total Flat Volume	52.6	54.7	55.9	57.3	59.8
Non-CRRT Flats	26.4	26.5	27.3	27.9	29.1
Barcoded First-Class	0.3	0.4	0.4	0.5	0.5
Barcoded Periodicals	3.3	3.8	3.9	4.1	4.3
Barcoded Standard	12.4	13.4	14.0	14.8	16.0
Total Barcoded Flat Mail	16.0	17.6	18.3	19.4	20.8

7. INCREASE ADDRESS AND BARCODE READABILITY

The Postal Service will continue to apply resources toward improving both the address and barcode read rate on USPS flats automation equipment. A joint postal-industry workgroup is focusing on optimizing flats readability. Recommendations on how customers can improve their address format quality, while meeting anticipated location requirements for automation, will be communicated to the mailing industry. The focus of this Postal Service-wide endeavor will be to ensure an increase in the amount of OCR/BCR readable flats that are provided by customers.

SUMMARY

In the short term, increasing customer participation in flats automation is focused on an effective worksharing program. The key components of worksharing are a rate structure that incents desired mailer behavior and make-up requirements that best match USPS processing needs. Specifically we must ensure that flats are entered as deeply into the system as possible, that they are machinable on our most efficient equipment, and that high quality barcoding is maximized.

These initiatives, coupled with the operational activities described earlier, are the essential elements of the overall flats strategy for the near term. The goal of the near-term effort is to achieve significant improvement in the current operating environment. Longer term, the Postal Service will need to take the next step, using letters as the model, which will extend the full benefits of automation to carrier operations.

Actions to improve long-term delivery office and street efficiencies must be consistent with the delivery environment of the future. It is important that the actions supporting the flats strategy are in line with future delivery plans. The information contained in the next section describing the delivery vision provides this context.

[10] These projections are based on FY 2000 and FY 2001 trends.

LONG TERM - FY 2004 AND BEYOND

DELIVERY VISION

The Postal Service's ultimate vision for delivery is a seamless operation that results in one bundle of mixed letters and flats for each delivery point. This vision is based on having high-speed mail sorting and packaging equipment that will efficiently sort and merge the letter and flat mail streams in delivery sequence order for the letter carrier. This equipment should be optimally located so that the operational savings can be maximized. All flat mail addresses and address labels will be standardized as to placement so that the equipment output will result in address orientation that facilitates efficient delivery. The labor-intensive carrier "pull downs" inherent in the existing system would be replaced with state-of-the-art packaging technology. The packaged volume would then be made available at a central carrier point or location, which may or may not be a traditional delivery unit. This new carrier/delivery unit environment would be without delivery unit sortation, case pull down, or fixed casing equipment.

The Postal Service is evaluating the benefits and costs of implementing this delivery vision. As a first step, the Postal Service will evaluate the use of additional firm holdouts and carrier shelf sortation based on the POSTNET barcode or ZIP+4. The next step will be to determine what customer and operational changes will be needed to sort flats in Delivery Point Sequence order. The final steps will be to gradually reduce the number of bundles that a carrier must handle, culminating in the Delivery Point Package. Listed below are the five specific steps that make up the delivery vision along with a flow chart representation for the process:

1. EVALUATE THE USE OF THE ZIP+4 TO ESTABLISH FIRM AND OTHER DIRECTS ON THE FSMS

The use of the ZIP+4 to establish firm holdouts proved very effective during letter automation implementation. Sort plans were modified easily to permit capture of volume that would otherwise be cased by the carrier and in making holdouts for post office box sections. Because a similar process can be implemented immediately in most processing centers, the Postal Service will explore the feasibility of using the ZIP+4 or POSTNET to sort flats to firm holdouts on the AFSM 100. Success will be dependent on whether this can be accomplished using a one-pass process and on the availability of bins. Bin separations can be assigned to a carrier case, shelf, half shelf, or individual delivery. Sort level would be dependent on the number of routes and the amount of casing equipment being utilized. The expected benefit from this process is a reduction in carrier office time.

2. IMPLEMENT FLATS DELIVERY POINT SEQUENCING

Implementing flats DPS will result in an economic benefit for the carrier office function. An overall reduction in the volume of cased flats will result in a comparable reduction in carrier office time. In order to maximize benefits of flats DPS, the Postal Service will continue to examine the rate structure and mailing requirements to maximize the automated mail stream. The most efficient work methods for city and rural carriers for casing and delivery of sequenced flats must be determined.

3. IMPLEMENT TWO BUNDLE DELIVERY METHOD

After flats DPS is implemented, the merging of DPS letters and flats together into one automated mail stream will result in additional economic and service benefits while reducing carrier street costs. At this point, it will be necessary to determine how to incorporate detached address mailings in the DPS mail stream. The result of this step would be two bundles of mail delivered by the city letter carrier: automated and cased residual.

Note: The reduction in letter carrier collation time should result in savings in street operations. Rural carriers currently have the contractual option of two-bundle delivery.

4. IMPLEMENT ONE BUNDLE DELIVERY METHOD

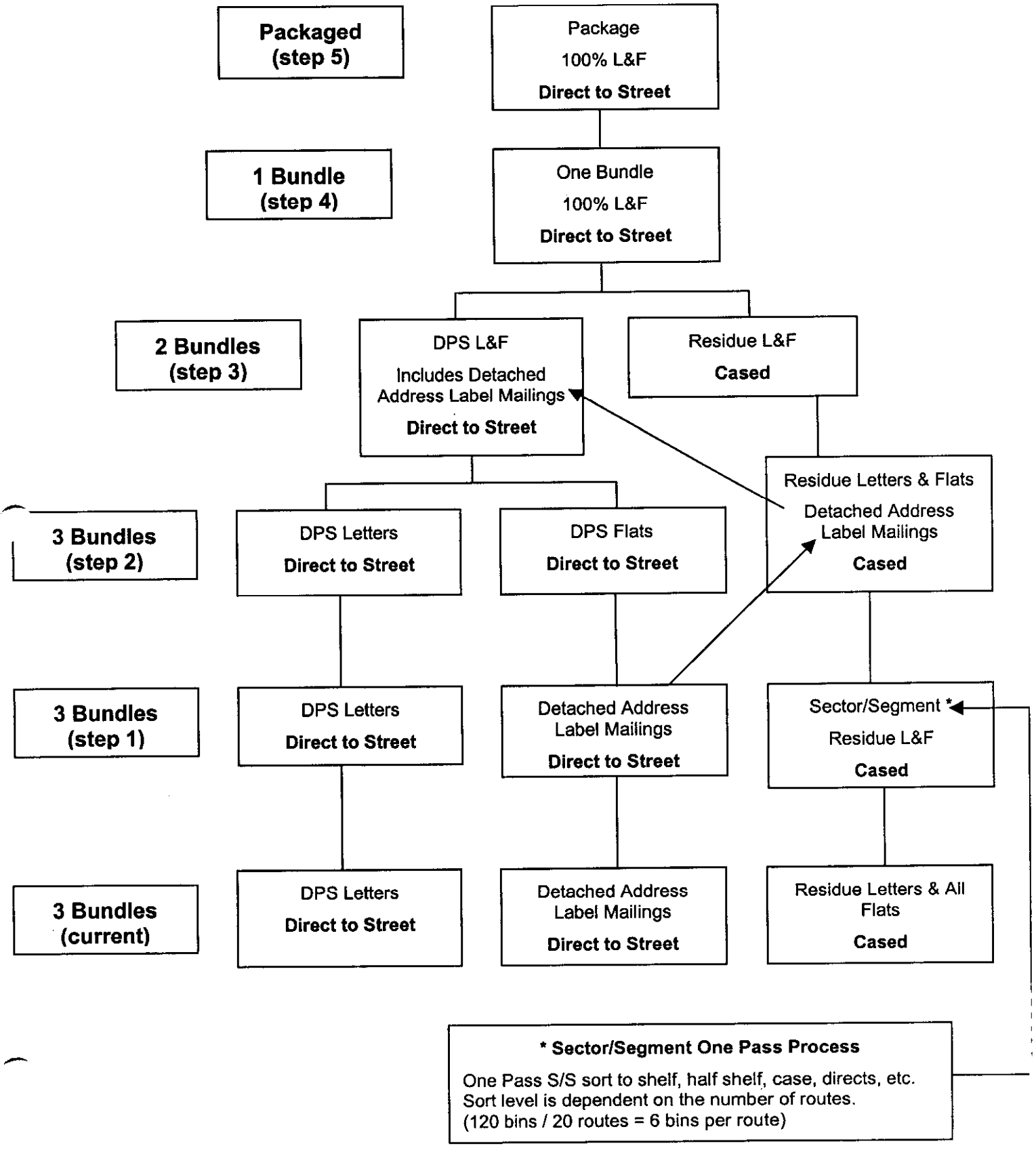
The next step is to combine the automated mail with the cased residual mail to achieve a one bundle delivery method. This is the final step in eliminating bundles as a deterrent to street performance. Economic and service benefits will be realized when this step is implemented.

5. IMPLEMENT DELIVERY POINT PACKAGING

This will be the last step of the delivery vision to achieve a seamless carrier delivery operation. Packaging the mail for each delivery point as a single pre-packaged unit provides savings in street performance due to the elimination of the need to "finger the mail" to find breaks between delivery addresses. For those offices not impacted by Step 4, a fully automated packaging process will reduce any remaining carrier office time. Additional savings include reductions in loading times, improved orientation of mail in the delivery vehicle, reduced satchel loading times, decreased relay points, and the elimination of carrier P.M. office time. Preliminary business and consumer reaction to the added convenience, privacy, security, and weather proofing provided to their mail by having it delivered as a packaged unit has been favorable. Additional research with all stakeholders (including mailers) will be conducted. Ergonomic impacts on street delivery for letter carriers indicate significant improvements over current delivery methods. Packaged mail also provides an opportunity for the Postal Service to explore additional revenue potential for "date certain" advertising.

➢ The flow chart on the next page provides a graphic overview of the delivery vision showing the current process (located at the bottom of the page), the role that Sector Segmenting of directs would play, the movement of detached address label mailings, the merging of DPS letters and flats, and the final one bundle and separate package steps.

The Postal Service's Delivery Vision



LONG TERM - FY 2004 AND BEYOND

IMPLEMENTING FLATS DPS

Consistent with the delivery vision, the Postal Service is exploring the possibility of Delivery Point Sequencing (DPS) flats. However, the Postal Service anticipates that implementation of flats DPS will not occur prior to FY 2004 at the earliest.

Before implementing letter DPS, the Postal Service began sorting letter mail in sector/segment order as an interim step using the 9-digit barcode. Even though most of the mail was in delivery order, the carrier still had to case the mail before leaving the office. As an interim step toward flats DPS, the Postal Service did consider the possibility of "two-pass or Sector/Segment" sortation for flat mail. Two distribution methods were evaluated to determine cost effectiveness. The first method would have the plants sort the flats in carrier shelf order (shelving) and the second would use the FSM to sequence flats in sector/segment order. Both methods required two or more passes to provide the needed depth of sort as a finished product (still requiring carrier casing and therefore providing little or no carrier unit savings); both were found to be less than optimal. This finding was supported further after considering the current operating window and volume arrival profile constraints. However, using either the ZIP+4 or the POSTNET barcode to separate flats into firm directs was considered beneficial.

The amount of space needed to DPS flats will be in large part dependent on the types and number of machine(s) required. The machines required to sequence flats into DPS order need to be designed, developed, and tested. Mail processing operating windows need to be defined along with any necessary mail flow changes, including possible changes to Drop Ship locations. The implementation strategy timeline must include a reasonable transition period for flats mailers to convert from a 9-digit barcode to an 11-digit Delivery Point Bar Code (DPBC).

Because it is still early in the flats DPS planning process, the Postal Service cannot answer all of the questions being asked. A detailed cost/benefit analysis of the most promising scenarios under varying product mix (classes of mail), schedules, operating windows, etc., will be performed to determine optimum systems, equipment, and processing strategies compared to the baseline alternative. Once the Postal Service has identified all viable options, it will pursue development of the associated equipment and technology, systems, and methods. As other flats DPS related issues are resolved, information will be provided.

In order to ensure that all potential flats DPS issues are considered during the planning phase, representatives from various Headquarters functional groups including: Engineering, Delivery Policies and Programs, Finance, Facilities, Gateway Planning and Development, Human Resources, Marketing, Networks, Information Platform, and Operations Planning and Processing have participated in the development of this plan. The flats DPS activities described in this section are integral to the process.

1. EVALUATE FUTURE DPS SCENARIOS

Prior to any decision to implement flats DPS, the Postal Service is evaluating and considering many operating scenarios and options. These scenarios recognize that flats DPS processing operations could be centralized (equipment and operations located in the Plants), decentralized (equipment and operations located at the Delivery Units), or a combination of centralized/ decentralized (shared operational responsibilities with certain types of equipment deployed to both locations). The planning process takes into account the different classes of mail, service level expectations, operating plan windows that affect possible sequencing and delivery options as well as the associated equipment, space, people, and transportation requirements.

2. DESIGN AND DEVELOP DPS EQUIPMENT

The Postal Service is in the process of defining the functional and design requirements for the proposed flats DPS processing equipment. We must be able to process primary and secondary volumes as well as perform DPS. In addition to satisfying throughput and quality issues, other factors that must be considered include identifying potential locations for each type of machine, and the need to merge various classes of mail without negatively impacting service expectations.

Several mail processing equipment and systems suppliers are collaborating with the Postal Service by performing research and development, prototype development, and equipment testing. Specific types of equipment under review support flats sequencing and mixed mail sorting and merging. Investigation into mechanized material handling systems (flats preparation, loading, induction, and sweeping) that could improve the efficiency of flat DPS processing is also underway. In the design requirements for new flats processing, the Postal Service must consider standard column spacing of 50'x50' or 54'x54' as a constraining footprint for new equipment. Multiples for the length of the machine can be used, but the width must be constrained to fit within the existing building standards. This must also accommodate supporting equipment and processes.

The information that follows provides an overview of the progress made to design and develop flats DPS processing equipment beginning with an evaluation of whether the existing AFSM 100 could be used, what mailpiece tagging or barcoding would be needed, and the amount and types of equipment that would be required.

A. DETERMINE IF DPS IS POSSIBLE UTILIZING THE EXISTING AFSM 100

Although the AFSM 100 was originally designed and deployed to sort flats to the carrier route level, computer simulations in conjunction with limited field testing have shown that the AFSM 100 can in theory DPS flats. However, it cannot do so efficiently with its current design configuration of 120 bins. This restriction limits the number of routes that can be sorted on one machine at a given time. While it is certainly possible to expand the AFSM 100 to 240 bins, this requires a large floor space which most mail processing facilities could not accommodate.

Because flat mail comes in so many different shapes and sizes, the computer simulations also revealed that a certain percentage of the DPS flats processed on the AFSM 100 would become misfaced and out of delivery sequence during processing. This situation would be unacceptable in a flats DPS production environment. The concept of how mail is dropped into the AFSM 100 flat trays must be reengineered so that delivery sequence and stacking integrity is better maintained. Other issues include developing a means for handling second pass volume without re-keying OCR rejects and keeping track of trays for second pass via a mechanized tray handling or support system.

B. DETERMINE DPS BARCODING/ID TAG REQUIREMENTS

Every evaluation of flats processing costs has concluded that using barcode readers is the most cost-effective method for sorting flats. OCR recognition and finalization ranks second, with FSM keying and manual distribution much more expensive. The current flat mail stream includes a wide range of allowable variation in size, weight, shape, and thickness that makes processing much more difficult than with letter volumes. The requirement for flat mail to be inserted into automated or mechanized equipment with the bound or folded edge in a certain orientation results in additional facing and handling costs.

Because there is no requirement for a specific address block location or barcode clear zone for flat mail, addresses and barcodes are sometimes difficult to locate. This means that a larger percentage of non-barcoded mail cannot be read by the OCR and therefore has to be keyed manually. Using standard ink jet printer technology, the application of POSTNET barcodes to non-barcoded flats presents a formidable challenge due to the polywrap and other glossy materials involved. A labeling system (where a barcode is applied to a label that is then affixed to individual flats) would most likely have to be used.

However, the Postal Service believes that technological advances in barcoding and mailpiece identification tagging (ID Tag) will eventually make it possible to overcome these obstacles. This alternative mail piece tagging system could provide the benefits of POSTNET barcoding yet be more cost effective. The Identification Code Sorting (ICS) tagging system now used to process letters could be modified to encompass flats processing. The ID Tag would carry the address information that resulted from either BCR or OCR resolution, through subsequent machine handlings. The Postal Service will conduct a study to evaluate the best technology for applying and reading a flat mail ID Tag to identify the most effective ID Tag location.

C. DETERMINE DPS FSM EQUIPMENT REQUIREMENTS

Other types of enhancements could improve DPS flat processing operations efficiency. Flat feeder assist devices that facilitate loading of flat sorting machines are being investigated. Sequencers with automatic flats feeders, OCRs, and sweeping units will undergo testing. Flat bundle sequencing models and equipment from several contractors will be demonstrated in the field to provide proofs of concept. In order to identify additional uses for this equipment, the possibility of sequencing both letters and flats simultaneously will be studied. This equipment will be thoroughly tested in both lab and operating environments to validate performance and to ensure the Postal Service procures state of the art technology.

3. DETERMINE DPS SPACE REQUIREMENTS

The Postal Service will revise space-planning requirements to support the deployment of flats DPS equipment. The resulting process will use overall facility space requirements as detailed in the AS-504 Handbook. Operational and machine requirements are currently determined based upon the objective of processing to the carrier route level only. Changing the objective to DPS flats may dramatically change space and facility requirements depending on the type of DPS equipment deployed, and will require reconsideration of current space-planning assumptions.

Within the next year, the Postal Service will develop an enhanced, process-oriented method to measure the space requirements for changing from a process-to-carrier route, to a flats DPS mail flow system. The steps to define the space requirements will be based on the following elements defining:

- Flat mail service standards existing at implementation time.
- Makeup of flats from mailers incorporating both the eleven-digit barcode and the possibility of increased OCR read rates.
- Processing specification/equipment needs based on equipment location.
- Processing methods to be used (i.e., sequencing).
- Workspace requirements for mail preparation, staging, and dispatch.
- Number and types of machines needed at each facility.
- Internal and external transportation methods (including customers).
- Processing windows/service expectations.
- Delivery methods and windows.

4. IDENTIFY NON-TECHNOLOGICAL FLATS DPS ISSUES

To successfully implement flats DPS, the Postal Service must consider all issues, not just those involving equipment, barcoding/tagging, and space planning possibilities. Of equal importance are how it will be presented to the carrier, which operations must change in the plants, what impact implementation will have on the workforce, and how best to prepare and involve customers.

A. RESOLVE DPS FLAT MAIL ORIENTATION ISSUES

Flats that are received at the delivery unit are generally presented to the carrier with the address side up and properly oriented for easier casing. In order for the potential flats DPS savings to be realized, there must be some comparable form of orientation so as to eliminate in-office casing without increasing street time. The Postal Service will work closely with the mailing industry to determine the optimum address and address label locations for optimum efficiency in office and street handling.

B. IDENTIFY OPERATIONAL CHANGES NEEDED FOR DPS

Planning to resolve operational issues associated with DPS of flats will focus on capturing DPS candidate volumes, determining transportation requirements, locating equipment, and resolving delivery unit problems.

During the planning process for letter DPS, it became evident that implementing procedures to capture all possible DPS volumes would be difficult. Determining where the most efficient location is to "trap" DPS candidate flat mail, either at the plant or delivery unit, means examining various scenarios, each presenting unique cost considerations.

As currently envisioned, most of the work of sequencing flats will be performed in the processing centers. This may require expansion of the mail processing operational windows for incoming secondary distribution and subsequent adjustments to transportation. The extent of the adjustment will be determined by which of the flats DPS scenarios is used as well as the decision to: 1) combine all or a portion of First-Class Mail, Periodicals, and Standard mail, or 2) sort only Periodicals and Standard flats in DPS order. If all three classes of mail must be sorted together to meet DPS objectives, then the processing window may need to be extended or adjusted somewhat similar to that for letters. Should the choice be to sequence only Periodicals and Standard mail, then this could be done during either Tour 2 or Tour 3, depending on machine availability.

The location of equipment deployed to perform the DPS sequencing will be of major importance. While the equipment needed to perform each function will be determined by Engineering, the location of that equipment will be identified collaboratively by Engineering, Processing Operations, Gateway, and Delivery.

Likely customer impacts will be associated with:

- Mailpiece design and/or characteristics.
- Presort level.
- Mail verification and acceptance.
- Mail preparation and presentation requirements.
- Entry point and time of entry.
- 11-digit barcode.
- Carrier route presort.
- USPS ID Tag application.

C. IDENTIFY HUMAN RESOURCES RELATED ISSUES

The Postal Service will identify and resolve all flats DPS human resources related issues that may impact the workforce. The following areas of concern have been identified:

- Update workforce planning processes to meet flats DPS changes, e.g., internal recruitment and retraining, changes in testing procedures, redeployment of affected employees.
- Identify carrier work methods changes, including case layout and design; modify training programs to incorporate new or changed work methods.
- Determine how flats DPS will affect the number of bundles.

D. DEVELOP MARKETING SUPPORT STRATEGY

Carrier route presort's value will be evaluated for multiple scenarios. Depending on the outcome, carrier route presort may need to be barcoded to delivery point or may prove to be less valuable if zone based sequencing is found to be the best processing alternative. Marketing will play a major role in supporting the implementation of flats DPS by working closely with the mailing industry. Marketing will focus on how product affordability, resulting from driving down Postal Service operating costs and thereby keeping postage rates stable, leads to product growth. All issues surrounding the manner in which customers prepare their mail in a DPS environment will be explored, investigated, and resolved. Mailer deposit times and corresponding service commitments will be examined. Mail makeup will be aligned with USPS DPS processes. Marketing will be responsible for communicating this information to customers through the appropriate channels.

We will need to increase the number of 11-digit barcodes and ensure that proper addressing formats, which enable high quality readability rates, are employed. Depending on the DPS solution reached, mailer makeup requirements, especially those associated with Carrier Route Presort will be affected. Changes to the rate structure will need to be examined as well.

CONCLUSION

The Postal Service is committed to addressing the cost and service issues related to the flats mail stream. In the near term, the focus of the flats strategy is to deploy and fully utilize equipment, minimize manually distributed volumes and to work with mailers to identify preparation alternatives that not only produce USPS operating efficiencies, but also reduce mailers' production costs.

Longer term, the focus is on extending the benefits of automation to the carrier operation. Initially, the emphasis is on reducing carrier in-office time through delivery point sequencing. Ultimately, we expect to be able to maximize street efficiency by combining letters and flats into a Delivery Point Package.