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1989
CORPORATE AUTOMATION PLAN

INTRODUCTION

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CORPORATE AUTOMATION PLAN

Senior Management Committee

UNITED STATES POSTAL SERVICE
Prepared by the Office of Automation Integration
April 1989

Restricted Information

The Corporate Automation Plan is managed by the members of the Senior Management Committee (SMC). The Plan has been designed for use by the SMC as a *dynamic* management tool. As such, the Plan serves to ensure that the Postal Service addresses the necessary decisions in the right time frames to meet the 1995 goal of an automated, barcoded mail distribution system. The Plan will facilitate understanding of the complex interdependencies between the various strategies. It is designed to be an internal, working tool (a "public" version of the Plan will be distributed in 1989).

The Corporate Automation Plan should be viewed as a road map to decisions to be made; *not* as a historical report of conclusions and events that have already been determined.

CORPORATE AUTOMATION PLAN

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THE POSTMASTER GENERAL
Washington, DC 20260-0010

October 28, 1988

MEMORANDUM FOR ALL OFFICERS

In 1987, the Senior Management Committee initiated the automation integration process to develop a long-range mail distribution plan through 1995. I have monitored the development of the Corporate Automation Plan over the last several months, and I believe its importance is of the highest significance for the future of the Postal Service and our customers.

On September 26, 1988, I announced at the National Postal Forum that our automation goal is to improve the value of service by reducing combined customer and Postal Service cost for preparing and sorting mail for delivery. We will achieve this goal by using automated barcode technology to sort virtually all letters and non-carrier route sorted flats by the end of 1995. Recognizing our cost trends, I believe we can attempt nothing less than the extraordinary effort and hard decisions necessary to manage the Plan and meet our goals.

This aggressive but achievable Plan will require enthusiastic cooperation by the mailing community and a disciplined focus of energy and intelligence by both the Postal Service management and employees.

We cannot afford to be anything but bold in our effort to meet our 1995 goal.

Anthony M. Frank

Anthony M. Frank

SECTION 1 EXECUTIVE SUMMARY

1.1 Introduction

This edition of the Corporate Automation Plan (CAP) reflects the progress and changes made to date since the edition published in October 1988. Because the Plan is dynamic, the Office of Automation Integration (OAI) publishes quarterly updates and a complete semi-annual revision of the Plan. The quantitative modeling to support the plan has been updated to include the most recent volume, equipment projections, and productivity data available. Successful implementation of the CAP is expected to result in the savings of 100,000 workyears by 1995 and save $5 billion in that year alone. These savings are expected to be achieved through an investment of approximately $3 billion in automation (1989 dollars) during the 1989-95 timeframe and by effective corporate management of the automation effort.

This edition of the CAP also includes revisions to the Strengthen System Integrity/Quality Strategy to include the Automation Quality Model and renames a strategy, "Optimize Customer Participation". The next edition of the Plan will be a quarterly update, to be issued in July 1989.

1.2 Goal

On September 26, 1988, at the National Postal Forum, the Postmaster General (PMG) announced that virtually all letter and non-carrier route presort flat mail will be barcoded by the end of 1995. The Corporate Automation Plan is a "road map" for reaching that goal — aiming for a path that results in the lowest combined mailer and Postal Service cost. The Plan has been designed as a *dynamic* guide to ensure that the Postal Service is making the necessary decisions, within the right timeframes, to meet the 1995 goal. The CAP is managed by the Senior Management Committee (SMC) members and the departments they represent.

In 1995, the USPS expects to have mailers apply bar codes to a substantial portion of letters and flats (non-carrier route); the remainder of flat mail will be coded and processed by the thousands of pieces of USPS equipment, including Multiline Optical Character Readers (MLOCRs), Remote Video Encoders, and bar

code sorters (BCSs). This combined effort to barcode virtually all letters and flats should result in approximately $5 billion in savings in 1995 alone.

With increased pressure from competitors and growing support for privatization of Postal Service functions, the forecasted gains from automation are a significant incentive for effective and successful management of the CAP.

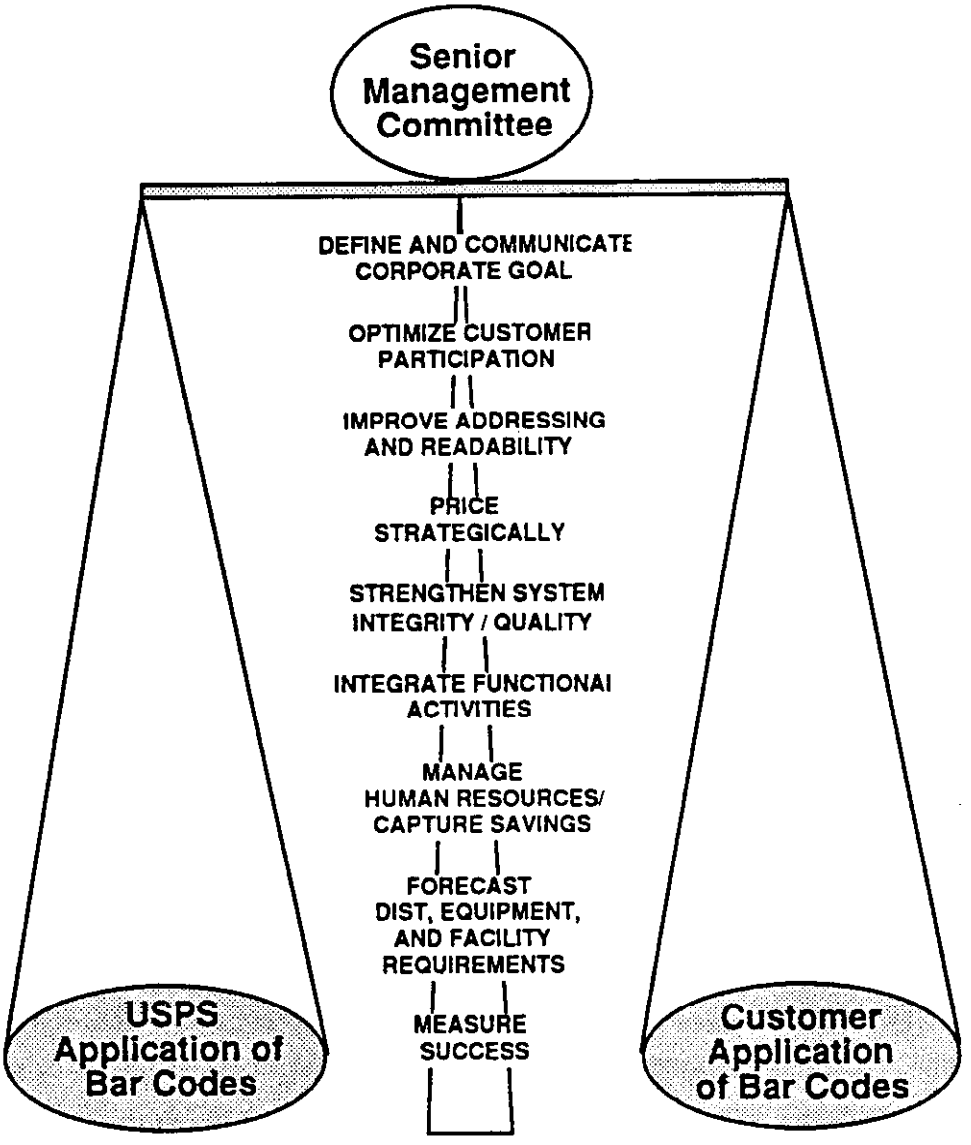
1.3 Means to Achieving the Goal

The CAP includes two means to barcode all mail by 1995 by either the mailer or the Postal Service.

The cooperation between mailers and the USPS is different for letters than it is for flats. With letters, the Postal Service has the MLOCRs and is also developing Remote Video Encoding (RVE) to apply bar codes to mail that is currently rejected by OCRs. However, mailers are being encouraged to barcode their own mail to the greatest extent possible. With flats, the Postal Service is still formulating distribution, equipment, and pricing strategies. Sufficient rate incentives for customer application of bar codes on flat mail could result in a lower combined cost by allowing the Postal Service to avoid developing flat OCRs.

The following figure depicts the relationship between the Postal Service and postal customers. It shows the two methods of achieving an automated, barcoded mail stream — Postal Service and mailer applied bar codes. In order to achieve the optimum mix of bar codes, the SMC will decide the trade-offs to be made in allocating resources between the nine corporate strategies. These strategies are listed on the fulcrum of the balance. They are described in detail in Section 1.5.

BALANCING STRATEGIC DECISIONS TO MEET 1995 GOAL



The SMC concluded that day-to-day management of the strategies should be the responsibility of the functional groups or departments. Recognizing the importance and interdependence of the various strategies, the SMC has assigned coordinating responsibility for each of the nine strategies to the Program Area Committees (PACs). The PACs primary responsibility is monitoring progress and coordinating inter-departmental issues. The PACs, in turn, report to the SMC.

The PAC Chairmen are Senior Assistant Postmasters General (SAPMGs) who review the current progress on each decision point, evaluate the major issues,

and then recommend final approval for the CAP strategies. The assignments are as follows:

John Mulligan Operations PAC	Forecast Distribution, Equipment, & Facility Requirements Strengthen System Integrity/Quality
David Charters Human Resources PAC	Manage Human Resources/Capture Savings
Mitchell Gordon Technology PAC	Improve Addressing and Readability
Peter Eichorn Services and Prices PAC	Define and Communicate Corporate Goals Optimize Customer Participation Price Strategically
Robert Edwards Office of Automation Integration	Integrate Functional Activities Measure Success

The optimum achievement of the goal requires that the SMC and PAC Chairs decide the adjustments to be made between the nine corporate strategies. Changes in decision points are *expected* as technology, work sharing and other conditions warrant.

1.4 Background

The SMC, comprised of the Postmaster General (PMG), Deputy PMG, Associate PMGs, Senior Assistant Postmasters General (SAPMG), General Counsel, and Chief Postal Inspector, commissioned a study in 1986 to clarify corporate automation goals, develop a common understanding of major automation issues, and resolve rate strategies. The SMC formed OAI in April 1987 to serve as a focal point in setting corporate automation policy. The OAI was staffed in June 1987 and tasked to: (1) Provide the SMC information to help establish a uniform, consistent approach to mail distribution automation; (2) Identify key issues and track their management and coordination; and (3) Serve as a primary source of information for automation throughout the Postal Service through maintenance and tracking of the CAP.

In early 1988, the OAI convened five focus groups to develop a corporate plan for automation activities. The focus groups included a broad cross section of postal management.

The Draft CAP report issued in March 1988 was further refined and approved by the SMC in October 1988.

The OAI presents CAP activities to the SMC on a quarterly basis. After review and approval by the SMC and Program Area Committee (PAC) chairmen, the activities are incorporated into the quarterly updates and semi-annual publications of the CAP.

The first quarterly update to the October 1988 CAP was published in January 1989. The OAI conducted focus groups in February and March of 1989 on the Improve Addressing and Readability, and Manage Human Resources/Capture Savings strategies. The SMC approved two major changes in April 1989. The Strengthen System Integrity/Quality strategy was completely rewritten, and the "Gain Customer Support" strategy was renamed, "Optimize Customer Participation".

1.5 CAP Strategy Descriptions and Progress

The nine CAP strategies are aimed toward a common goal of barcoding virtually all mail by the end of 1995 and capturing the potential savings this achievement will allow. Each strategy is interrelated. Decisions made in one area have significant influence and impact on other strategies. The functions, purpose, and brief status of each of the nine strategies are discussed below:

Define and Communicate Corporate Goal (See Chapter 4.1) — Describes the plans for clearly defining the automation goal to customers and employees. The Communications Department prepared a comprehensive communications plan to support the CAP through 1995. Headquarters conducted briefings with regional, divisional, and MSC Marketing and Communications Directors on automation communication plans. Several articles concerning our changeover to automation have appeared in newspapers and trade journals. There

have also been many articles in-house to inform employees what automation is, why we are going to automation, and how they fit into automation.

Optimize Customer Participation (See Chapter 4.2) — Formerly entitled, Gain Customer Support, this strategy was renamed in late 1988 in order to convey the importance of customer participation and worksharing. This strategy aims at providing customers means to ensure their mail is automation compatible. It includes worksharing options, technical support, and compatible market research efforts to support customer needs. The following progress, as of PQ4/88, has been made:

- Completion of Market Plan, Automaton Promotion Plan, and Marketing Activity Calendar FY89-90.
- Development of Marketing and Communications strategy for corporate automation.
- Established policy to integrate operations, rates, and marketing strategies.
- Site reviews were conducted to examine technical automation support provided to customers.
- Flat mail bar code specifications were presented to ABC Flat Mail Subcommittee.
- Efforts to develop a Wide Area Bar Code Reader (WABCR) are underway.
- Forecasts of customer applied bar codes were determined and presented to the DPMG's Pricing Strategy Group.

Improve Addressing and Readability (See Chapter 4.3) — Focuses on ensuring that the addresses and bar codes on mail are correct and readable. The Improve Addressing and Readability strategy is a critical part of the overall Corporate Automation Plan. Since PQ4/88, significant decision points were completed and/or implemented.

- The Postmaster General issued a policy statement ensuring that Postal Service generated mail must be automation compatible.
- The SMC approved a Headquarters Readability Focal Point to facilitate resolution of field readability-related issues.

- The RPMGs agreed to Regional and Divisional readability improvement goals to be incorporated into PCES objectives in mid FY89.

Price Strategically (See Chapter 4.4) — Reflects the efforts to integrate operations and marketing with the rate making process including development of rate case/classification requirements for automation compatible mail. Under the guidance of an SMC sub-committee chaired by Mr. Coughlin, the Rates & Classification Department studied alternative automation compatible rates. On April 10, 1989, the SMC gave the Rates & Classification Department approval to further develop automation compatible proposals for the next general rate case. The key elements of their *draft* proposal include:

- A multi-tiered shape-based rate structure for bulk third class mail. The first tier receiving the largest discount would consist of automation compatible letters. A second tier would consist of other letters, and a final tier of flats.
- Automation compatible discounts which may eventually replace presort (*non*-automation compatible) as the predominant First-Class Mail discount.
- Establishing a pre-barcode discount for flat mail.

Strengthen System Integrity/Quality (See Chapter 4.5) — This strategy will ensure sufficient internal and external controls to monitor the quality of automated mail processing and delivery as we transition from a mechanized/manual system. This strategy was completely rewritten in March 1989 to focus more closely on the Corporate Policy Statement for Quality. Four major objectives to meet customer expectations have been identified: (1) Quality to Customers; (2) Quality to Delivery; (3) Distribution Quality; and (4) Mail Base Quality.

Integrate Functional Activities (See Chapter 4.6) — This strategy is the means of implementing the decision points in all nine strategies and achieving the goal of mutually beneficial lower operating costs. Integration accomplishments include: (1) development, implementation and enhancement of decision support systems and tracking systems; (2) the Model for Evaluating Technology Alternatives (META); (3) the Corporate Automation Plan Tracking and Inventory

(CAPTAIN) system; (4) support and involvement in automation related meetings; (5) CAP quarterly updates; (6) SMC briefings; and (7) semi-annual publications.

Manage Human Resources/Capture Savings (See Chapter 4.7) — This strategy is aimed at ensuring that the potential savings from implementing a fully automated distribution system are realized. This strategy includes plans for measuring and tracking savings, complement management, surveying potential effects of automation on the workforce, and establishing labor negotiation objectives to achieve the workforce required in 1995. In March 1989, the Human Resources Group sponsored a multi-functional meeting in Phoenix, which expanded the focus of this strategy. The areas of concern resulting from this meeting included:

- Contract negotiation issues pertaining to flexibility, standards, productivity incentives, and work rules;
- Operation assumptions related to:
  - equipment performance,
  - thruput,
  - readability,
  - reliability,
  - savings, and
  - cost of implementation;
- An implementation plan (Playbook) and complement planning that includes an analysis of workload shifts, skills assessments, placement of unassigned regulars, hiring plans and savings timeframes;
- A reward/merit system plan that encompasses a long term orientation, includes first-line managers and establishes specific automation savings/goals;
- A measurement and tracking system that establishes a baseline, identifies and segregates automation savings, and implements follow-up procedures;
- Site-specific communication and training to supervisors and managers at the local level which involves crafts.

Follow-up work in April 1989 suggested an action plan for addressing these concerns at a divisional level. These suggestions are currently under Human Resources PAC review.

Forecast Distribution, Equipment and Facility Requirements (See Chapter 4.8) — This strategy includes plans for the development and procurement of equipment to support the delivery concept; investment of building and/or lease of space to accommodate increasing volumes, and changing equipment technologies. Progress in this area includes:

Distribution

- Operations has expanded the delivery distribution concepts, which were tested at Baltimore and Lutherville, Maryland, to eight additional sites.
- An immediate expansion of AADCs has been recommended by a regional task group and total AADCs is expected to reach approximately 200.
- The Integrated Mail Handling System (IMHS), which addresses the barcoding of trays, containers, parcels, and flats has been added to the Plan on the Distribution timeline.

Equipment

- RVE concepts have been concluded, and the Human Resources and Operations Departments continue to analyze the issue.
- CFS II is being explored as an alternative to apply bar codes with current equipment during available time.
- The Board of Governors approved the Part B MLOCR and BCS requirements of 346 and 421, respectively. An option of an additional 300 MLOCRs is also available.
- Four companies have been awarded contracts to develop a test model Delivery BCS.
- A contract has been awarded for the production of 622 Advanced Facer Cancellers.
- At the request of the SMC, the flats automation program will be examined by TRD. TRDs analysis will consist of reviewing current development programs, categorizing flat volumes, defining and evaluating flats options, and developing a new flats R&D program aimed at the 1995 CAP.

Facility

- Independent facility space tests were conducted by the Operations and Facilities Departments and both indicate an opportunity to save space with automation.

Measure Success (See Chapter 4.9) — This strategy is aimed at developing measurement systems to track and evaluate the performance and success of each strategy. Measurement criteria for each of the other eight strategies have been defined and are reported in this edition of the CAP. A series of measures have been defined that pertain not to the Plan as a whole. These measures are as follows:

- Volume Measures
  - Number of bar codes applied,
  - "Depth" (ZIP+4) of the bar codes,
  - Accuracy of the bar code, and
  - Number of bar codes successfully processed to carrier and sector segment.

- System-wide Measures
  - Effect of the automation program on workhours,
  - Effect on budget, and
  - Effect on service performance.

Chapters 4.1 - 4.9 explain the strategies in detail and list corresponding decision points, activities and timelines.

1.6 Summary of Major Future Corporate Decisions

Several of the decision points comprising the Corporate Automation Plan are noteworthy by virtue of requiring corporate-level decisions. They are:

- Develop plans to design a 1995 workforce mix of skills and levels to meet forecasted operational needs (project labor savings) - PQ3/89.
- Complete recommendations on rates and classification filings to support automation goal - PQ2/89.

- Select distribution alternatives for national implementation - PQ4/89.
- Develop a marketing strategy which gives customers a role in mail preparation, to respond to the selected delivery distribution concept - PQ4/89.
- Select type and quantity of encoding equipment - PQ1/90.
- Select strategy to merge carrier route presort (CRP) flats with automated flats - PQ1/92.

In July, 1989, the Delivery, Distribution, and Transportation Department will present to the SMC the concept of carrier walk sequencing, which requires introducing the Advanced Bar Code (ABC). This goes beyond the current CAP underpinning which is sorting to sector segment level via the nine-digit bar code. The ABC decision will potentially impact: (1) the currently developing rate case; (2) marketing; (3) equipment procurement; (4) technology development; and (5) labor negotiations. The challenge to the SMC will be to make the best decision in the face of these inter-relationships.

Regardless of the chosen distribution concept, the Postal Service must be aggressive in realizing the projected savings. The various modeling activities that have been done in support of automation demonstrate the savings available.

Management of the CAP presents significant risk and will require difficult decisions, but the potential 100,000 workyear and $5 billion cost savings justify the extraordinary effort needed to meet the 1995 goal.

1.7 Senior Management Committee Timelines

The Senior Management Committee timeline, which follows, contains the most important strategic decisions and activities from the detailed timelines of the nine major strategies. The timelines graphically illustrate the activities within the strategies to ensure the goal of a barcoded mail stream by the end of 1995. Each of the PQ4/88-1/89 SMC timeline activities are complete.

Corporate Automation Plan

MEANS	STRATEGIES	Fiscal Year 1988 Quarter 4	Fiscal Year 1989 Quarter 1
√ indicates item has been completed.	Define & Communicate Corporate Goal	Agree on Automation Goal. (SMC)√ Develop plan to communicate corporate automation goals to internal and external public (present outline of plan 8/30/88). (CD)√	(G.1)Postmaster General announces corporate auto- mation goals at the National Postal Forum. (PMG) √ (G.2)Launch internal and external communications campaign. (CD) √
Customer Application of Bar Codes	Optimize Customer Participation	(C.100) Develop/implement marketing plans and goals to increase customer barcoding of letters. (MK) √ (C.105) Initiate development of wide band (address block) bar code reading for letter mail. (ES) √ (C.110)Complete comprehensive communication plan — related to internal and external communication of corporate goal. (MCG) √	(C.10)Establish policy to integrate operations, rates, and marketing strategies. (SMC) √ (C.115)Develop long-term communications plan. (SMC) √
	Price Strategically	(P.18)Initiate development of a Rates and Classification action plan to support automated distribution concepts. (RC) √	(P.30)Determine feasibility of establishing "Showcase" facilities equipped with latest in technology and management systems that demonstrate operational costs to support PRC filing. (S&P PAC) √
USPS Application of Bar Codes	Improve Addressing & Readability	(R.100)Initiate development of a Rates and Classification action plan to support automated distribution concepts. (RC) √	(R.10) Establish responsibility and allocate resources for Headquarter's management of readability program. (OSG)√ (R.220) Establish divisional baseline measures and improvement objectives for automation readability. (MP)√
	Distribution		
	Equipment • MLOCR • BCS	(E.900)Determine five-year capital needs for automation. (ES) √ (E.910) Approve five-year capital budget. (CIC) √ (E.500) Develop plans for flats automation program including new BCS or OCR/Remote Video Encoding. (ES/TR) √	
	• Encoding		
	Facilities		(F.10)Develop methodology to determine facility impact of automation (Westchester Study) (MP) √
Support	Manage HR/ Capture Savings		
	Strengthen Sys. Integrity/ Quality		
	Integrate Func. Activities		(I.27)OAI briefings for SMC on CAP.(OAI) √ (I.10)Review PAC role in managing CAP.(SMC) √ (I.26(Quarterly reports by PAC Chairpersons to SMC on assigned strategies.(SMC) √
	Measure Success		

CRITICAL TIME

4.

— SMC Decision Timeline

Quarter 2	Quarter 3	Quarter 4
		(G.50) Provide end of the year automation progress report materials. (CD) (G.155) Implement communications plan to introduce "wide-band" bar code reader. (CD & MK)
(C.330)Forecast volume of customer-applied bar codes based on various marketing, pricing, and technology assumptions.(MK) ✓	(C.25) Incorporate readability goals in the scorecard. (ER) (C.210)Complete review to strengthen technical guidance. (S&P PAC) (C.325)Study the consistency of delivery for automation compatible mail. (OS)	(C.30)Incorporate consistency into service definition for automation compatible mail. (MK) (C.33)Select distribution concept & type of bar code for national implementation (DT) (C.130)Achieve 2 billion customer barcoded letters — (non-reply mail). (MK) (C.135)Develop marketing strategy to respond to selected delivery distribution concept which gives customers a role in mail prep. (MK)
(P.65)Review and approve rates and classification action plan. (Deputy/SMC) ✓ (P.250)Complete recommendations on rates and classi- fication filings to support automation goal and present to SMC. (S&P PAC) ✓		
(R.120)Recommend to SMC if rate and classification filings to support the corporate automation goal are possible. (RC) ✓	(R.40)Tie automation goals into division manager's FY 89 scorecard and PCES objectives. (ER)	(R.340)Fund development and testing of device to automate checking of address accuracy and readability. (ES or TR)
(D.50)Select network concepts(s). (DT) ✓		(D.40)Select distribution alternatives for national implementation. (DT)
		(E.18) Award Part B MLOCR Contract. (ES)
		(E.205)Begin testing of Remote Video Encoding equipment. (ES)
(F.15) Develop model to determine impacts of automation on facilities. (DT) ✓	(F.30)Select strategies to meet space requirements. (SMC)	
	(H.1)Develop plans to match employees with forecasted operational needs (project labor savings). (LR)	
(Q.5) Develop a corporate policy statement on quality for automation. (OSP) ✓	(Q.220)Develop plan to improve make-up quality in incentive mail by modifying BMAU/DMU tasks, implementing quality control checks, or other alternatives.(RC/MK)	(Q.165)Evaluate feasibility of early video ID tag retrofit on OCR, BCS and F/C to promptly redirect improperly coded mail. Compare to other alternatives.(ES)
(M.1)SMC determines method(s) of measuring overall success for CAP. (SMC) ✓ (M.2)SMC determines method(s) of measuring success for Define and Communicate Corporate Goals strategy. (SMC) ✓ (M.10) Implement automated CAP tracking system. (OAI) ✓	(M.12) Begin tracking 9-digit bar code volume. (FD)	

CRITICAL TIME

Corporate Automation Plan

MEANS	STRATEGIES	Fiscal Year 1990 Quarter 1	Quarter 2
	Define & Communicate Corporate Goal	(G.70) Include automation message in speech at annual management organizations state/national conventions. (CD)	
Customer Application of Bar Codes	Optimize Customer Participation	(C.140) Modify marketing plan and goals to include flats pre-barcoding. (S&P PAC)	(C.150) Deploy wide band bar code reader modifications. (ES)
	Price Strategically	(P.70) Review, modify as necessary, and implement strategic pricing plan. (RC) (P.265) Complete ZIP+4 and pre-barcode cost studies. (RC) (P.270) Complete nationwide presort and shape based cost studies. (RC)	(P.276)Finalize rate proposal for next rate case. (RC)
USPS Application of Bar Codes	Improve Addressing & Readability		(R.370) Deploy Part B multiline OCRs. (ES) (R.380) Automate process to check readability and address accuracy at bulk mail acceptance units. (ES or TR)
	Distribution		
	Equipment • MLOCR • BCS	(E.107) Determine delivery BCS requirements. (ES) (E.210) Select type and quantity of encoding equipment. (ES)	(E.720)Develop RFP for flats OCR capability. (ES)
	• Encoding	(E.210) Select type and quantity of encoding equipment. (ES)	
	Facilities		
Support	Manage HR/ Capture Savings	(H.303) Modify Human Resources plan and labor negotiations objectives based on multiline, encoding, and distribution concepts. (LR)	
	Strengthen Sys. Integrity/ Quality	(Q.145) Eliminate misdelivery of miscoded missorts in firm and box mail through an interim system of quality control checks and mandatory corrective action. Establish policy on unacceptable quality levels that require complete riffle of a firm or bos section. (OSP)	
	Integrate Func. Activities		
	Measure Success	(M.20) Monitor CAP savings. (DC)	

— SMC Decision Timeline

Quarter 3	Quarter 4	Fiscal Year 1991
		(C.40) Evaluate role of worksharing by customers to provide sequencing of letters and flats for the carrier. (PQ1, S&P PAC)
		(P.70) Review, modify as necessary, and implement strategic plan. (PQ3, RC)
	(D.62) Review delivery distribution concept (e.g., sector-segment, carrier walk seqeuence). (DT)	(D.913) Obtain BOG approval for IMHS first class mail nationwide deployment.(ES)
	(E.115) Deploy Mail Processing BCS. (ES) (E.21) Begin Part B deliveries. (ES)	
		(E.222) Begin Remote Video Encoder national deployment. (ES)
		(F.80) Review strategies to meet space requirements. (PQ1) (FD)
(M.30)Validate FY savings for CAP. (DC)		

Corporate Automation Plan

MEANS	STRATEGIES	Fiscal Year 1992	Fiscal Year 1993
	Define & Communicate Corporate Goal	(G.190) Provide update materials for Postmaster General National Postal Forum addresses on automation 1995 goal progress. (CD)	
Customer Application of Bar Codes	Optimize Customer Particpation		
	Price Strategically		
USPS Application of Bar Codes	Improve Addressing & Readability		
	Distribution	(D.68) Review delivery distribution (sector-segment, carrier-walk sequence). (PQ1, DT)	
	Equipment • MLOCR • BCS	(E.540)Select strategy to merge CRP flats with Automated Flats. (OS)	
	• Encoding	(E.230) Review encoding needs and determine need for additional deployment. (PQ1, ES)	
	Facilities	(F.80)Review strategies to meet space requirements. (PQ1, FD)	
Support	Manage HR/ Capture Savings		
	Strengthen Sys. Integrity/ Quality		
	Integrate Func. Activities		
	Measure Success	(M.30)Validate FY savings for CAP. (DC) Ongoing	

— SMC Decision Timeline

Fiscal Year 1994	Fiscal Year 1995
	(H.305) Modify Human Resources plan and labor negotiations objectives based on new distribution concepts. (PQ1) (LR)

SECTION 2 INTRODUCTION

2.1 Corporate Automation Goal

As stated by Postmaster General Anthony Frank, "Our goal is the lowest *combined* mailer and Postal Service costs in preparing, sorting, and delivering mail. To achieve this goal, we plan to have a bar code on all letter mail and all non-carrier route presort flat mail by the end of 1995..."

The Postmaster General (PMG) has committed the organization to accomplishing this goal by 1995. Postal resources are focused on management decisions and activities to make the goal a reality. The most critical element in reaching this goal is the placement of bar codes on letters and flats. A bar code may be placed on the mail by either the mailer or by the Postal Service. This combined effort is designed to benefit the Postal Service and mailers. The Postal Service believes that by working together with mailers, it can achieve the 1995 goal.

This document, the Corporate Automation Plan (CAP), contains the planned management decisions and activities to make this goal a reality. The Plan includes specific objectives and aggressive timetables to guide and focus management decisions. This document is designed as a working management tool to implement a dynamic Corporate Automation Plan.

2.2 Benefits of Automation

Over the past year, the Postal Service conducted an internal review of postal automation and confirmed that the increased use of bar code technology can save approximately 100,000 work years and $5 billion in 1995 alone. Significant work in pursuing the appropriate bar code technology has been accomplished through a cooperative effort of the Automation Bar Coding (ABC) Committee and the Postal Services' Senior Management Committee (SMC). One result of this effort is the initiative to develop the capability of reading bar codes placed in the address block of letter mail. This capability is expected to increase customer pre-barcoding.

For that portion of the mail that is not barcoded by customers, our focus will be on increasing the readability and accuracy of the address and applying bar codes with high

speed Multiline Optical Character Readers (MLOCRs). Development of Remote Video Encoding (RVE) will be aimed at barcoding mail that cannot be initially read by the MLOCRs. The important emphasis is to have each piece of mail be capable of being handled by the Bar Code Sorters (BCSs).

Each of the different type of mail may have a different automation objective:

1. **Letter Mail** automation will require a readable bar code on each piece by 1995. This will be achieved by relying on customer pre-barcoding, with the remainder being applied by the Postal Service.
2. **Flat Mail** automation is being developed. The issues under consideration are the type of bar code, and the overall automated solution. If greater reliance is placed on customer application of the bar code, we will decrease the emphasis on the development of a flat OCR and focus on a flat BCS.

Strategies for other categories of mail are under consideration. In cooperation with interested customers, parcel sorting using bar codes is being tested at a bulk mail center. In addition, a prototype Integrated Mail Handling System is being developed which will process trays, sacks, pallets, and other containers using bar code technology.

The Postal Service automation challenges have several dimensions. The degree of customer barcoding has a significant affect on equipment acquisition. Tied to bar code worksharing is the challenge to formulate creative appropriate rate structures and classification guidelines. Progress on rates and classification will require further cooperation between mailers and the Postal Service in demonstrating to the Postal Rate Commission that innovative, automation-related rates are the most promising direction to take for the future. The Postal Service is relying on attracting a significant level of worksharing to achieve the lowest combined costs.

The benefits of automation are an increased ability to handle growing mail volumes, improvements in productivity, and containment of costs – for the USPS *and* customers. Automation will result in a higher capital to labor ratio which should have a stabilizing effect on rate structures. Additionally, while holding down the combined costs of preparing, distributing, and delivering the mail, automation will provide more consistent and reliable service.

2.3 Background

In mid-1986, a study was commissioned to clarify corporate automation goals, develop a common understanding of major automation issues, and resolve rate strategies. A report on this study was submitted to the Senior Management Committee in January 1987. The report recommended establishment of a management position to serve as a corporate focal point in support of the SMC's efforts to set and guide corporate automation policy. Acting on this recommendation, the SMC formed the Office of Automation Integration (OAI) in April 1987.

The OAI mandate is to: (1) collect, analyze, and provide information regarding mail distribution automation programs; (2) identify key issues and ensure coordination throughout the USPS management structure; and (3) act as the primary source of information for automation throughout the Postal Service. Their duties include maintenance of the overall Postal Service automation plan under direction of the SMC.

An OAI task force was established in August 1987 to identify and analyze automation related activities, surface concerns of Postal Service managers, and provide the SMC with a report to guide the automation program at the corporate level. The initial report was presented to the SMC in October 1987 and updated in January 1988 to include formal comments received from SMC members.

In January and February 1988, OAI convened five focus groups to develop a corporate plan for automation activities. The focus groups included a broad cross section of postal management, including members from Marketing and Communications, Rates, Facilities, Operations Support, Human Resources, Delivery Services, etc.

The basic approach required each working group to build upon the preceding group's work. The first focus group created the initial plan or blueprint for a given strategy. The second focus group worked to enhance it. This process continued through the fifth focus group, which consisted mainly of senior managers who reviewed the work of the preceding four. This process resulted in the plan being created and reviewed by 110 USPS managers representing varied functions, geographic areas and managerial levels.

An overall timeline encompassing ten corporate strategies was developed for the Senior Management Committee. The timeline provided graphic representations of key

decision points and actions necessary to achieve long-range corporate automation goals. The ten corporate strategies are listed below:

- Define and Communicate Corporate Goal
- Gain Customer Support
- Improve Readability
- Price Strategically
- Strengthen System Integrity/Quality
- Integrate Functional Activities
- Manage Human Resources/Capture Savings
- Manage Field Innovation
- Forecast Equipment, Facilities and Distribution Requirements
- Measure Success

In March 1988, the corporate automation strategies were issued to the appropriate Program Area Committee (PAC) for review. (See Appendix C for the PAC assignments). These plans were then formally presented to the SMC by the respective Senior Assistant Postmaster General (SAPMG)/PAC Chairs in June 1988. During the period of mid-July to mid-September, the PACs functions further refined the strategic timelines. A review of the strategies by the PACs and functional groups resulted in two changes to the original ten strategies. "Manage Field Innovation" was deleted as a major corporate strategy and the "Improve Readability" strategy was modified to "Improve Addressing and Readability".

The SMC approved the CAP in October 1988. In January 1989, the PAC Chairs presented the first quarterly update which focused on the status of PQ4/88-1/89 decision points. The OAI then conducted focus groups on the Improve Addressing and Readability and Manage Human Resources/Capture Savings strategies. The input from these groups further refined the timelines and strategies.

A review of the strategies by the PACs and functional groups resulted in two modifications to this edition of the CAP. The Strengthen System Integrity/Quality strategy and timelines are completely revised and the "Gain Customer Support" strategy was renamed "Optimize Customer Participation". After approval by the SMC and PACs, OAI published this version of the CAP in April 1989. The April 1989 CAP contains the following nine strategies:

- Define and Communicate Corporate Goal
- Optimize Customer Participation
- Improve Addressing and Readability
- Price Strategically
- Strengthen System Integrity/Quality
- Integrate Functional Activities
- Manage Human Resources/Capture Savings
- Forecast Distribution, Equipment and Facility Requirements
- Measure Success

These strategies and timeline activities are described in detail in Sections 4.1 through 4.9. Decision points which are also on the SMC timeline are illustrated in this format:

> **(H.4) LR/DDD/Planning to develop "Model Work Force/Right Mix" seven year outlook – what we will have and/or want to have in '95 work force - PQ3/89. SMC ITEM**

The OAI presents CAP activities to the SMC on a quarterly basis. After review by the SMC and PAC, activities are reported in quarterly updates and semi-annual publications of the Corporate Automation Plan.

2.4 Summary

It is primarily through automation, as presented in the CAP, that ever increasing volumes of mail can be handled efficiently and at a reasonable cost. To keep costs down and maintain an efficient level of service as the volume of mail increases each year, the Postal Service plans to barcode all letter mail and non-carrier route presort flat mail and pursue strategies to barcode parcels, containers, and pallets.

Customer participation or worksharing is a major factor in the success of reaching the goal of placing bar codes on all of the mail by 1995. The Postal Service recognizes this and is committed to increasing customer participation. The SMC changed the name of one of the CAP strategies to "Optimize Customer Participation" from "Gain Customer Support", the previous name of the strategy, to emphasize the critical role of customer participation in achieving the lowest costs.

The Corporate Automation Plan is a *dynamic* guide to ensure that the Postal Service is making the necessary decisions, within the right timeframes, to meet the 1995 goal. This Plan requires significant risk and investment. However, the potential for savings justifies the effort necessary for successful implementation.

Note: Copies of this Plan are available by contacting the Office of Automation Integration at PEN 268-5767 or by writing:

PROJECT DIRECTOR
OFFICE OF AUTOMATION INTEGRATION
475 LENFANT PLAZA SW ROOM 6671
WASHINGTON DC 20260-7030

The Corporate Automation Plan is updated on a quarterly basis and a new publication is issued semi-annually.

For assistance in using this document, a Glossary is included in Appendix D.

SECTION 3 QUARTERLY LIST OF ACTIVITIES AND DECISIONS

3.1 STATUS OF TIMELINE ACTIVITIES AND DECISION POINTS AS OF APRIL 28, 1989 — ALL NINE STRATEGIES

Time	Scheduled Items	Items Completed	Items To Be Completed
FY88 PQ IV	31	31	0
FY89 PQ I	50	49	1
PQ II	47	34	13
PQ III	40	0	40
PQ IV	45	0	45
FY90 PQ I	28	0	28
PQ II	12	0	12
PQ III	6	0	6
PQ IV	4	0	4
FY91	24	0	24
FY92-95	19	0	19
Total	306	114	258

3.2 ACTIVITIES AND DECISION POINTS

The alpha and numeric codes assigned to each decision point and activity denote tracking numbers. The alpha code indicates the strategy, and the numeric code is the number OAI assigned for tracking purposes within the strategy. The chart below explains the codes:

C	Optimize Customer Participation
D	Distribution
E	Equipment
F	Facilities
G	Define and Communicate Corporate Goal
H	Manage Human Resources
I	Integrate Functional Activities
M	Measure Success
P	Price Strategically
Q	Strengthen System Integrity/Quality
R	Improve Addressing and Readability

Outline text indicates an item which is included on the Senior Management Committee (SMC) Timeline.

√ indicates an item has been completed

3.2.1 Quarter IV 1988

Optimize Customer Participation

(C.5) Prepare definition of Corporate Automation Strategy. (MCG) √

(C.100) Develop/implement marketing plans and goals to increase customer barcoding of letters. (MK) √ SMC ITEM

(C.105) Initiate the development of wide band (address-block) bar code reading for letter mail. (ES) √ SMC ITEM

(C.110) Complete comprehensive communications plan — related to internal and external communication of corporate goal. (MCG) √ SMC ITEM

(C.200) Initiate action plan to strengthen technical guidance to customers producing mail that should be automation-compatible. (MP & MK) √

(C.300) Complete market study among cash managers on ARM concept. (MK) √

(C.305) Initiate mail characteristics data collection. (TRD) √

(C.310) Publish automation promotion effectiveness study. (MK) √

(C.315) Receive initial Market Analysis Information System (MAIS) Automation Study data. (MK) √

Improve Addressing and Readability

(R.5) Change name of strategy from "Improve Readability" to "Improve Addressing and Readability". (ASG) √

(R.100) Initiate development of Rates and Classification Action Plan to support automated distribution concepts. (RC) √ SMC ITEM

(R.200) Review internal/external technical support for automation at field divisions. (MP) √

(R.205) Propose annual readability goals to RPMGs. (DPMG) √

(R.300) Expand efforts to refine existing OCR & BCS components. (ES) √

Price Strategically

(P.18) Initiate the development of Rates and Classification Action Plan to support automated distribution concepts. (RC) √ SMC ITEM

(P.20) Synchronize Operations and Marketing with Rates. (DPMG) √

(P.200) Initiate a study to examine the possibility of a barcoding incentive for flats. (RC) √

(P.235) Examine ways the general public can participate in automation. (RC & MK) √

(P.245) Initiate search for possible additional services that could be provided for automated mail. Seek input from other departments. (RC) √

Manage Human Resources/Capture Savings

(H.105) Establish steering committees with management and craft with primary goal of communicating plan {HQ, Region, Division, MSC, Management Association, business agents (e.g., Northeast Region), etc.}. (LR) √

Distribution, Equipment, and Facilities

(D.10) Begin Area Distribution Center (ADC) analysis. (MP) √

(D.15) Approve study for carrier walk sequencing. (DS/ES) √

(D.30) Begin delivery distribution tests at selected sites (i.e., Baltimore). (ES) √

(E.100) Review proposals for Part B BCS test contract. (ES) √

(E.101) Award test model contract for delivery BCS. (ES) √

(E.300) Begin MPLSM extraction tests. (ES) √

(E.400) Determine AFCS Requirements. (ES) √

(E.500) Develop plans for flats automation program including new BCS or OCR/Remote Video Encoding. (ES/TR) √ SMC ITEM

(E.700) Solicit proposals for flats OCRs. (ES) √

(E.900) Determine five-year capital needs for automation. (ES) √ SMC ITEM

(E.910) Approve five-year capital budget. (CIC) √ SMC ITEM

3.2.2 Quarter I 1989

Define and Communicate Corporate Goal

(G.1) PMG announced automation goal at National Postal Forum, Washington, D.C. (PMG) √ SMC ITEM

(G.2) Launch external/internal communications campaign. (CD) √ SMC ITEM

(G.5) Distribute through Postal News Service divisional publications material on impact of new jobs, training plans. (CD) √

(G.10) Produce postal video network feature on cause/effect between USPS and automation goal. (CD) √

(G.15) Postal publications: publish articles announcing goals, defining objectives, exploring work force impact. (CD) √

(G.110) Weave addressing message into holiday shop early/mail early publicity opportunities. (CD) √

Optimize Customer Participation

(C.10) Establish policy to integrate operations, rates and marketing strategies. (SMC) √ SMC ITEM

(C.115) Develop long-term communications plan. (SMC) √ SMC ITEM

(C.120) Begin execution of automation advertising, promotion and communications plan. (MCG) √

(C.320) Publish ZIP+4 barcoding study. (MK) √

Improve Addressing and Readability

(R.10) Establish policy that USPS must generate mail that OCRs and BCSs can read. (SMC) √ SMC ITEM

(R.15) Establish responsibility and allocate resources for headquarter's management of the readability program. (OSG) √ SMC ITEM

(R.110) Analyze readable/nonreadable (dual) rate structures and decide on readability discounts. (RC) √

(R.210) Establish group to develop concepts for technical support teams. (MP & MK) √

(R.215) Recommend management approach for readability program at headquarters. (OAI) √

(R.220) Establish divisional baseline measures and improvement objectives for automation readability. (MP) √ SMC ITEM

(R.305) Define requirements and application of automated device or system to check address accuracy and readability (front-end quality). (ES or TR)

(R.310) Continue OCR algorithm research. (TR) √

(R.315) Fund OCR and BCS performance improvement projects (e.g., RFPs to fix reject causes). (ES)√

(R.320) Analyze undeliverable bulk business mail test results. (AIS)√

(R..325) Implement Coding Accuracy Support System (CASS) for five-digit presort and carrier route presort. (AIS)√

(R.330) Review status of National Change of Address (NCOA). (AIS)√

Price Strategically

(P.30) Determine feasibility of establishing "showcase" facilities equipped with latest in technology and management systems that demonstrate operational costs to support PRC filing. (S&P PAC) √ SMC ITEM

(P.207) Analyze time of entry and place of entry incentives to mailers to increase the automation of mail; workshare group assessment. (RC) √

(P.226) Develop Office of Rates position regarding shape-based rates. Seek input from other departments. (RC) √

(P.228) SMC concurrence regarding shape-based rates. (RC) √

(P.242) Conduct MLOCR upgrade rate study, consolidate data and assess effect on ZIP+4 discounts. (RC) √

(P.247) Solicit input and comments from mailers concerning candidate additional automated related services and evaluate their feasibility. (Extension of P.245). (RC) √

(P.254) Circulate proposal to relax five-digit bar code and double window prohibitions for commingled pieces in pre-barcode mailings. (RC) √

(P.256) Establish working group to review regulations on mailers. (RC) √

(P.258) Assess simplified three-digit presorting for automation-compatible mail. (RC) √

Integrate Functional Activities

(I.5) Evaluate PAC decisions and determine costs, savings and timelines for CAP strategies. (OAI) √

(I.10) Review PAC role in managing CAP. (SMC) √ SMC ITEM

(I.20) Use rapid scenario decision support systems (i.e., META) to analyze SMC/PAC suggested scenarios for Corporate Automation Plan. (OAI) √

(I.26) Quarterly reports by PAC chairpersons to SMC on assigned strategies. (SMC) √ SMC ITEM

(I.27) OAI briefings to SMC on CAP status. (OAI) √ SMC ITEM

(I.28) Develop prototype Corporate Automation Plan Tracking and Inventory System (CAPTAIN) including Information Storage and Retrieval System. (OAI) √

(I.29) Develop a simple logic flow diagram showing inter-relationships among strategies and key decision points (Mr. Mulligan). (OAI) √

(I.30) Implement CAPTAIN and information storage and retrieval system. (OAI) √

(I.31) OAI support of PAC implementing strategies. (OAI) √

(I.32) OAI involvement in headquarters, field and customer automation meetings including Field Division General Managers meeting and Regional meetings of division functional directors. (OAI) √

(I.45) Prepare and present quarterly update of CAP to SMC. (OAI) √

(I.50) Enhance CAP decision support systems such as META to include additional needs for long-range planning (e.g., facility cost by distribution concept, etc). (OAI) √

Manage Human Resources/Capture Savings

(H.110) Consider Automation Mail Flow Coordinator interim position. (ER) √

(H.115) Examine existing jobs to determine the feasibility of adding additional responsibility for quality and/or maintenance — and at what cost. (APMG, ER)√

Distribution, Equipment, and Facilities

(D.12) Develop decision model with field participation. (DS) √

(E.15) Determine Part B MLOCR requirement. (ES) √

(E.16) Begin Phase I redeployment assessment. (MP) √

(E.710) Award developmental contract for flats OCRs/BCSs.(ES) √

(F.10) Develop methodology to determine facility impact of automation (Westchester Study). (MP) √ SMC ITEM

3.2.3 Quarter II 1989

Define and Communicate Corporate Goal

(G.20) Implement internal addressing campaign for official mail. (CD) √

(G.115) Produce video news release on proper addressing/readability to coincide with Creative Services campaign. (CD)

(G.120) Publicize facility plans to keep pace with automation needs. (CD) √

(G.130) Target article on training today's employees for tomorrow's workplace. (CD)

(G.135) Generate publicity from official mail addressing campaign. (CD) √

Optimize Customer Participation

(C.20) Establish standards for customer applied bar codes for flats. (ES) √

(C.330) Forecast volume of customer-applied bar codes based on various marketing, pricing, and technology assumptions. (MK) √
SMC ITEM

Improve Addressing and Readability

(R.17) Determine if ZIP+4 Codes should be included in the definition of a complete address. (PD & MK)

(R.20) Develop addressing policy with standards for assignment of street addresses and notify local government. (AIS & MK)

(R.25) Develop and deliver training for proper techniques in developing address lists. (AIS)

(R.30) Develop and disseminate basic rules of address standardization. (AIS) √

(R.35) Develop and implement an automated system to convert rural route to city style addresses. (AIS)

(R.120) Recommend to SMC if rate and classification filings to support automation goal are possible. (RC) √ SMC ITEM

(R.225) Develop a system to measure barcoded reply mail with ODIS-collected data. (MK & RC)

(R.230) Promote the use of existing Address Information Systems (AIS) products. (AIS & MK) √

(R.240) Develop and recommend system to measure accuracy and level of barcoding. (MP)

(R.335) Initiate market study to determine optimum addressing characteristics for readability. (ES & MK) √

(R.345) Explore feasibility of standardizing existing OCR & BCS operating specifications. (ES) √

(R.350) Deploy system to standardize and manage walk sequence address list. (AIS)

(R.355) Develop and implement third-class address change service. (AIS & MK) √

Price Strategically

(P.65) Review and approve rates classification action plan. (Deputy/SMC) √ SMC ITEM

(P.215) Analyze readable/nonreadable (dual) rate structures and assess a readability discount. (RC) √

(P.250) Complete recommendations on possible rate and classification filings to support automation goal - present to SMC. (S&P PAC) √ **SMC ITEM**

Strengthen System Integrity/Quality

(Q.5) Develop Corporate policy statement on quality for automation. (ES) √ **SMC ITEM**

Integrate Functional Activities

(I.60) Update, publish and distribute Corporate Automation Plan (see reference in I.45). (OAI) √

(I.61) Publish a public version of the Corporate Automation Plan (MK & OAI)

Manage Human Resources/Capture Savings

(H.125) Explore work force flexibility options for automated environment. (LR)

(H.130) Devise and implement a system of training incentives and rewards for postmasters and AO managers with innovations in cost savings measures in support of automation. (ER)

(H.200) Design surveys to determine effects of automation on clerks/mail handlers/carriers/supervisors. (ER)

Distribution, Equipment, and Facilities

(D.35) Expand delivery distribution tests to additional sites. (DS) √

(D.50) Select network concept. (MP) √ SMC ITEM

(E.200) Develop remote video and encoding operating concept. (HR) √

(E.410) Award AFCS Contract. (ES) √

(E.510) Agree on industry standard flat barcode. (ES) √

(F.15) Develop model to determine impact of automation on facilities. (DT) √ SMC ITEM

Measure Success

(M.1) SMC determines method(s) of measuring overall success for CAP. (SMC) √ SMC ITEM

(M.2) SMC determines method(s) of measuring success for Define and Communicate Corporate Goal strategy. (OAI) √ SMC ITEM

(M.3) Services and Prices PAC determines method(s) of measuring success for Gain Customer Support strategy. (S&P PAC) √

(M.4) Technology PAC determines method(s) of measuring success for Improve Addressing and Readability strategy. (TPAC) √

(M.5) Services and Prices PAC determines method(s) of measuring success for Price Strategically strategy. (S&P PAC) √

(M.6) Operation PAC determines method(s) of measuring success for Strengthen System Integrity/Quality strategy. (OP PAC) √

(M.7) Advice and consent of SMC regarding OAI plans for measurement of success for Integrate Functional Activities strategy. (SMC) √

*(M.8) Operation PAC determines method(s) of measuring success for Forecast Distribution, Equipment, and Facility Requirements strategy. (**OP PAC**)* √

*(M.9) Human Resources PAC determines method(s) of measuring success for Manage Human Resources/Capture Savings strategy. (**HR PAC**)* √

(M.10) Implement automated CAP tracking system. (OAI) √ SMC ITEM

*(M.11) OAI will track the development of the measurement system for each strategy (PQ2/89-FY95). (**OAI**)* √

3.2.4 Quarter III 1989

Define and Communicate Corporate Goal

(G.25) Conduct regional communications training for field managers on how communications can support marketing objectives. (CD)

(G.30) Postal publications: features on "showcase" facilities, discuss training for new equipment, job opportunities. (CD)

(G.35) Produce field Open House kit for completion of multiline deployment. (CD)

(G.40) Begin workfloor automation poster series. (CD)

(G.45) Postal publications: SAPMG Human Resources interview. (CD)

(G.140) Develop Communications Plan to introduce "wide-band" bar code reader modification. (CD & MK)

(G.145) Coordinate support strategies regarding automation goals and upcoming labor negotiations. (CD)

(G.150) Prepare plan with Government Relations to update field briefing materials for elected officials. (CD)

Optimize Customer Participation

(C.25) Incorporate readability goals in the scorecard. (ER) SMC ITEM

(C.210) Complete review to strengthen technical guidance. (OP & MK) SMC ITEM

(C.325) Study the consistency of delivery for automation-compatible mail. (OP) SMC ITEM

(C.335) Publish interim analysis and tabulation of MAIS data. (MK)

Improve Addressing and Readability

(R.40) Tie automation goals into division manager's FY89 scorecard and PCES objectives. (ER) SMC ITEM

(R.45) Incorporate automation goals into FY90 budget call. (OSG & MCG)

(R.50) Determine scope of problem with unreadable and incorrectly addressed BRM and CRM. (DT)

(R.105) Recommend rate and classification changes to promote automation compatibility among presort mailers. (RC)

(R.235) Test concepts for technical support team . (S&P PAC)

(R.245) Recommend concept(s) to organize and staff field technical support teams. (S&P PAC)

(R.360) Complete study to quantify non-read and error causes for each type of automated equipment. (DT)

Price Strategically

(P.240) Re-examine ZIP+4 and barcoding incentives. (RC)

Strengthen System Integrity/Quality

(Q.55) Strengthen the quality control function for automation by selecting national quality control steering committee recommendations for priority implementation. (ES)

(Q.160) Ensure visibility of key intra-facility operations by selecting current distribution quality tests for FY-90 emphasis. (OP)

(Q.220) Develop plan to improve make-up quality in incentive mail by modifying BMAU/DMU tasks, implementing quality control checks, or other alternatives. (RC/MK) SMC ITEM

Manage Human Resources/Capture Savings

(H.1) HR/Operations/Inspection Service/Controller to develop planning process for building standard format for use by field HR managers to ensure thoroughness and consistency in implementation and effective communication. Plan is to match employees to forecasted operational situation so projected savings can be calculated. Serves as a baseline for H.5 process. (LR) SMC ITEM

(H.2) Inventory training available and examine adequacy for automation needs. Build design for supplemental training determined to be needed for both craft and management. (TD)

(H.4) LR/DDD/Planning to develop "Model Work Force/Right Mix" seven year outlook - what we will have and/or want to have in '95 work force. (LR)

(H.5) Charge Controller/Inspection Service with responsibility of monitoring savings goal achieved against the plan; test at pilot sites. (LR)

(H.10) Tie automation goals into division manager "scorecards" and PCES objectives. Date contingent on getting goals from Operations Support and Marketing. (ER)

(H.300) Establish overall labor negotiations through 1996 (Include results of labor force survey). (LR)

Distribution, Equipment, and Facilities

(D.52) Make decision regarding undefined small sites. (DT)

(D.55) Test MLOCR with compressed national directory. (ES)

(D.56) Establish criteria for RVE and BCS field simulation package. (ES)

(D.890) Complete development and evaluation of the IMHS FCM Concept for trays, containers, material handling and barcoding of these units for routing by the process control system. (ES)

(E.202) Select operating concept for remote video encoding. (SMC)

(E.600) FSM five-digit barcode print/read test. (ES)

(E.610) Begin field testing of model FSMs 788. (ES)

(F.30) Select strategies to meet space requirements. (SMC) SMC ITEM

Measure Success

(M.12) Begin tracking nine-digit bar code volume. (FD) SMC ITEM

(M.14) Implement automation readability measurement system. (DT)

3.2.5 Quarter IV 1989

Define and Communicate Corporate Goal

(G.50) Provide end of the year automation progress report materials. (CD) SMC ITEM

(G.55) Initiate direct contact plan sending automation-related mailings, payroll stuffers, etc. to employees. (CD)

(G.60) Postal publications: articles on delivery distribution concept selection explaining plans, method of selection. (CD)

(G.105) Develop postmaster's publicity kit on proper addressing/readability. (CD)

(G.155) Implement Communications Plan to introduce "wide band" BCS. (CD & MK) SMC ITEM

(G.160) Place feature articles as remote video encoding tests begin. (CD)

(G.165) Produce field materials for introduction of Phase III barcode sorters (CD)

Optimize Customer Participation

(C.30) Incorporate consistency into service definition for automation-compatible mail. (MK) SMC ITEM

(C.33) Select distribution concept & type of bar code (ZIP+4 or ABC) for national implementation. (DT) SMC ITEM

(C.125) Launch public service advertising aimed at the general public. (MK)

(C.130) Achieve two billion customer barcoded letters (non-reply mail). (MK) SMC ITEM

(C.135) Develop marketing strategy to respond to selected delivery distribution concept which gives customers a role in mail preparation. (MK) SMC ITEM

(C.337) Assess impact of the ABC concept on customer's potential to workshare. (MK)

(C.340) Publish MAIS automation study report. (MK)

Improve Addressing and Readability

(R. 55) Review status of CASS, ZIP+4, carrier route presort, and five-digit carrier route presort. (AIS)

(R.115) Conduct pre-barcode readability study and assess affect on pre-barcode discounts. (RC)

(R.250) Develop and implement Address Correction System (ACS) Nixie Feedback System. (AIS)

(R.340) Fund development and testing of device to automate checking of address accuracy and readability. (ES or TR) SMC ITEM

(R.365) Develop readability improvement strategies based on non-read and error causes and targeted customer segments. (MP & MK)

Price Strategically

(P.205) Estimate flats pre-barcoded related cost savings once operating concepts are finalized; decide on discounts. (RC & ES)

(P.243) Conduct pre-barcode readability study and assess affect on pre-barcode letter discounts. (RC)

(P.260) Evaluate effect of selecting delivery distribution concept on pricing plan. (RC)

Strengthen System Integrity/Quality

(Q.60) Communicate corporate policy on quality for automation & develop a wide understanding of the required supporting activities. (OP)

(Q.140) Add improperly forwarded and return to sender "loop" mail to the delivery unit secondary quality (DUSQ) visibility and corrective feedback system. (OP)

(Q.150) Improve depth-of-sort provided to carriers by implementing the depth of record measurement and improvement system. (OP)

(Q.165) Evaluate feasibility of early video ID tag retrofit on OCR, BCS and F/C to promptly redirect improperly coded mail. Compare to other alternatives. (ES) SMC ITEM

(Q.170) Evaluate application methods and effectiveness of marking automation mail with a MLOCR machine number to diagnose coding problems. (ES)

(Q.225) Support 9-digit barcode verification at acceptance units and mailer plants by pilot testing the acceptance unit verification system (POSTNET reader with national directory on CD-ROM). (ES)

Manage Human Resources/Capture Savings

(H.7) HR to notify and assist operations when automation plan is not being accomplished. (LR)

Distribution, Equipment, and Facilities

(D.40) Select distribution alternatives for national implementation. (DS) SMC ITEM

(D.57) Define option for expanding 2-pass BCS processing window. (DT)

(D.58) Define equipment option and transition plan for carrier walk sequence. (ES)

(D.59) Determine potential customer participation in ABC program. (MK)

(D.60) Perform Carrier Walk Sequencing, Carrier In-Office Test. (OP)

(D.891) Complete procurement and installation of Integrated Mail Handling System (IMHS) prototype equipment for 2nd, 3rd, and 4th class mail. (ES)

(D.894) Award contract for IMHS FCM prototype test and evaluation. (ES)

(E.5) Deploy CRIS Sort (Postal Soft) on Burroughs OCR. (ES)

(E.18) Award Part B MLOCR Contract. (ES)

(E.19) Award contract to OCR vendor to integrate compressed ZIP+4 directory. (ES)

(E.102) Field Test new Delivery and Mail Processing BCSs. (ES)

(E.160) Deploy MPLSM barcode reader modification. (ES)

(E.170) Engineering Support Center (ESC) to continue development of double decker BCS. (ES)

(E.204) Perform cost/benefit analysis on extent of video encoding. (ES)

(E.205) Begin remote video encoding MTAs. (ES) SMC ITEM

(E.515) Estimate flats pre-barcode related cost savings. (MK & ES)

*(E.800) TRD completes compressed ZIP+4 file development. (**TRD**)*

*(F.20) Apply Westchester Study Methodology to 75 Divisions. (**DT**)*

3.2.6 Quarter I 1990

Define and Communicate Corporate Goal

(G.65) Produce "turn-key" career awareness conference presentation on automation - PQ1-4 (CD)

(G.70) Include automation message in speech at annual management organizations state/national conventions - PQ1-4. (CD) SMC ITEM

(G.75) Postal publications: stories on new generation MLOCR, RVE, and "wide-band" bar code reader deployments - PQ1-4 (CD)

(G.170) Plan, develop and execute remote video encoding deployment promotion plan - PQ1-4 (CD & MK)

(G.173) Announce "wide-band" bar code reader plans and highlight automation progress during National Postal Forum address - PQ1-4(CD & MK)

(G.175) Support strategic pricing plans with business media publicity - PQ1-4 (CD)

Optimize Customer Participation

(C.35) Develop specifications for the address-block bar code that offer flexibility for customers. (ES & MK)

(C.140) Modify marketing plan and goals to include flats pre-barcoding. (S&P PAC) SMC ITEM

(C.145) Modify marketing plans to reflect changes in: strategic pricing plan; ability to read bar codes in address block; mail make-up requirements, and new presort programs resulting from selected delivery distribution concept. (MK)

(C.345) Update/Refine MAIS automation data collection. (MK)

Price Strategically

(P.70) Review, modify as necessary and implement strategic pricing plan - PQ1/90 and PQ3/91. (RC) SMC ITEM

(P.265) Complete ZIP+4 and pre-barcode cost studies. (RC) SMC ITEM

(P.270) Complete nationwide presort and shape-based cost studies. (RC) SMC ITEM

(P.271) Complete special rate case studies to support USPS proposals to PRC (RC)

(P.272) Define "automation compatibility" for rates and classification proposes. (EDC)

(P.274) Complete study of current third-class mail characteristics. (RC)

(P.275) Evaluate 3-digit presort and determine how and when to allow 3-digit presorting for automation compatible mail.(RC)

Strengthen System Integrity/Quality

(Q.145) Eliminate misdelivery of miscoded missorts in firm and box mail through an interim system of quality control checks and mandatory corrective action. Establish policy on acceptable quality levels that require complete riffle of a firm or box section. (OP) SMC ITEM

(Q.155) Measure and improve accuracy of distribution to delivery unit by completing implementation of the delivery unit secondary quality program. (OP)

(Q.175) Develop inter-facility visibility and corrective feedback system for missent and stale mail received by other facilities. (OP)

(Q.180) Evaluate real-time quality system in mail processing, demonstrated as part of pilot test of the real-time production management system (RPMS). (OP)

(Q.230) Ensure emphasis on mailer preparation of more readable mail by including presort in the letter mail readability index mailbase and tracking against established goals. (OP)

Manage Human Resources/Capture Savings

(H.303) Modify Human Resources plan and labor negotiations objectives based on multiline, encoding and new distribution concepts. (LR) SMC ITEM

Distribution, Equipment, and Facilities

(D.901) Complete test and analysis IMHS 2nd, 3rd, & 4th class prototype test (ES)

(E.107) Determine delivery BCS benefits. (ES) SMC ITEM

(E.210) Select type and quantity of encoding equipment. (ES) SMC ITEM

Measure Success

(M.15) Assess progress using measurement systems. (OAI)

(M.20) Monitor CAP savings. (DC) SMC ITEM

3.2.7 Quarter II 1990

Optimize Customer Participation

(C.150) Deploy wide-band bar code reader modifications. (ES) SMC ITEM

(C.155) Conduct national campaign to announce ability to read bar codes in the address block. (MK & CD)

(C.205) Deploy acceptance unit decoder equipment for barcoded mail. (ES)

Improve Addressing and Readability

(R.370) Deploy Part B multiline OCRs. (ES) SMC ITEM

(R.375) Deploy local area based NCOA. (AIS)

(R.380) Automate process to check readability and address accuracy at bulk mail acceptance units. (ES or TR) SMC ITEM

Price Strategically

(P.276) Finalize rate proposal for next rate case. (RC) SMC ITEM

Distribution, Equipment, and Facilities

(D.902) Obtain Board approval for IMHS 2nd, 3rd, & 4th class deployment. (ES)

(E.22) Finalize Phase I redeployment plans. (ES)

(E.108) Begin Mail Processing BCS process; award contract. (ES)

(E.215) Award RVE production unit contracts. (ES)

Measure Success

(M.25) Adjust measurement systems for continuing use. (SMC & PACs)

3.2.8 Quarter III 1990

Price Strategically

(P.280) Evaluate effect of Remote Video Encoding (RVE) on Price Strategy. (RC)

Distribution, Equipment, and Facilities

(D.63) Perform Carrier Walk Sequencing equipment test.(ES)

(D.903) Start IMHS 2nd, 3rd, & 4th class nationwide deployment. (ES)

(E.109) Award production contract for Delivery BCS. (ES)

(E.420) Begin AFCS Deliveries. (ES)

Measure Success

(M.30) Validate FY Savings for CAP. (DC) SMC ITEM

3.2.9 Quarter IV 1990

Optimize Customer Participation

(C.350) Forecast volume of customer barcoded letters. (MK)

Distribution, Equipment, and Facilities

(D.62) Review delivery distribution concept (e.g. sector/segment, carrier walk sequence). (DS) SMC ITEM

(E.21) Begin Part B deliveries. (ES) SMC ITEM

(E.115) Deploy Mail Processing BCS. (ES) SMC ITEM

3.2.10 Fiscal Year 1991

Define and Communicate Corporate Goal

(G.80) Develop internal communications strategies relating to automation/work force/job security - PQ1-4. (CD)

(G.85) Update EI/QWL automation briefing materials - PQ1-4. (CD)

(G.90) Postal publications: facility requirements strategies - PQ1-4. (CD)

(G.180) Publicize joint labor/management successes regarding automation goals - PQ1-4. (CD)

(G.185) Coordinate regional/national postal forum automation progress publicity efforts - PQ1-4. (CD)

Optimize Customer Participation

(C.40) Evaluate role of worksharing by customers to provide sequencing of letters and flats for the carrier - PQ1. (S&P PAC) SMC ITEM

(C.160) Review, modify as necessary, and implement marketing plans to reflect changes in pricing, technology, changes to delivery distribution concept - PQ1. (MK)

Price Strategically

(P.70) Review, modify as necessary and implement strategic plan- PQ3. (RC) SMC ITEM

(P.273) Determine eligibility requirements for nonpresort automation compatible discount- PQ2. (RC)

(P.277) Devise method of administering new third-class mail rate categories and determine eligibility requirements for new rate categories. PQ2. (RC)

Distribution, Equipment, and Facilities

(D.65) Develop carrier walk sequence equipment requirements - PQ1. (ES)

(D.911) Complete installation of IMHS FCM prototype equipment. (ES)

(D.912) Complete test and analysis of IMHS FCM prototype test - PQ2. (ES)

(D.913) Obtain Board approval for IMHS FCM nationwide deployment (ES) SMC ITEM

(E.125) Determine equipment requirements for next-generation BCS to perform CWS - PQ1. (ES)

(F.60) Review strategies to meet space requirements - PQ1. (FD) SMC ITEM

(E.131) Deploy Delivery BCS - PQ2. (ES)

(E.222) Begin RVE national deployment - PQ2. (ES) SMC ITEM

(E.225) Evaluate relative merits of one-stage vs. two-stage encoding - PQ3. (ES)

(E.520) Select Flats encoding method - PQ1. (ES)

(E.530) Procure desired FSM encoding system - PQ3. (ES)

(E.620) Deploy FSMs 788 - PQ1. (ES)

(E.630) Determine flats BCS requirements - PQ3. (ES)

(E.730) Complete demonstration system of flats OCR/BCS - PQ3. (ES)

3.2.11 Fiscal Years 1992-95

Define and Communicate Corporate Goal

(G.95) Update postmaster automation publicity kits - FY92-95. (CD)

(G.99) Postal publications: articles on MLOCR requirements to support delivery distribution; flats BCS deployment, usage, benefits - FY92-95. (CD)

(G.190) Provide updated materials for Postmaster General National Postal Forum addresses on automation 1995 goal progress - FY92-95. (CD) SMC ITEM

(G.195) Initiate automation "on-track" media campaign - FY92-95. (CD)

Optimize Customer Participation

(C.165) Review, modify as necessary and implement marketing plans which reflect changes in pricing and technology - PQ1/92. (MK)

Manage Human Resources/Capture Savings

(H.305) Modify Human Resources plans and labor negotiations objectives based on new distribution concepts - PQ1/95. (LR) SMC ITEM

Distribution, Equipment, and Facilities

(D.68) Review delivery distribution concept (e.g., sector/segment, carrier walk sequence) - PQ1/92. (DS) SMC ITEM

(D.70) Prepare/approve DAR for CWS equipment production. - PQ 2/92. (ES)

(D.80) Begin production delivery - PQ 2/93. (ES)

(D.920) Start IMHS FCM nationwide deployment. - FY92. (ES)

(D.950) Complete IMHS FCM and 2nd, 3rd, & 4th class nationwide development - FY95. (ES)

(E.230) Review encoding needs and determine need for additional deployment - PQ1/92. (ES) SMC ITEM

(E.540) Select strategy to merge Carrier Route Presorted (CRP) Flats with Automated Flats - PQ1/92 (OS)

(E.640) Add automatic induction station and barcode reader to FSM 788 - PQ3/92. (ES)

(E.650) Add barcode printer/applicators to FSM -PQ3/92. (ES)

(E.740) Prepare DAR for flats OCR/BCS - PQ4/92. (ES)

(E.750) Award contract for flats OCR/BCS - PQ3/93. (ES)

(E.760) Begin production of flats OCR/BCS - PQ1/94. (ES)

(F.80) Select strategies to meet space requirements - PQ1/92. (ES) SMC ITEM

Measure Success

(M.30) Validate FY savings for CAP - Ongoing. (DC)

CHAPTER 4.1 DEFINE AND COMMUNICATE CORPORATE GOAL

4.1.1 Background

The corporate goal statement for the automated distribution program was developed by a process that involved the highest levels of postal management. The Program Area Committee (PAC) Chairmen, customers, customer focus groups, postal focus groups (consisting of 110 high level managers from field divisions, regions and headquarters), and functional staff members repeatedly reviewed and rewrote until agreement was reached.

Simply stated the Corporate Automation Goal is:

> **"To improve the value of service by achieving the lowest combined customer and Postal Service cost of preparing and sorting mail for delivery."**

On September 26, 1988, the Postmaster General (PMG) publicly announced the Corporate Automation Goal to the National Postal Forum in Washington, DC. The resources of the Postal Service are focused on having all letters and non-carrier route flats (catalogs, magazines and larger envelopes) barcoded by the end of 1995. Achieving this goal will require working with customers to maximize their in-house barcoding of mail and taking the necessary steps to ensure that within the Postal Service, we are prepared to barcode all remaining mail.

Communicating this goal to people ranging from the senior executive of a large mail customer to an employee operating an Optical Character Reader (OCR) or Bar Code Sorter (BCS) is necessary if we are to receive the broad range of support necessary for the automation plan to work.

To this end a plan has been developed to reach postal employees, business customers (by size), the general public, and government officials. Each message is designed for a particular segment of the target audience or group of audiences. A

public version of the Corporate Automation Plan (CAP) will be distributed in 1989. The public version will be directed to major mailers and customers.

4.1.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- The Communications Department prepared a comprehensive communications plan to support the CAP through 1995. The major decision points on the Senior Management Committee (SMC) timeline are complete. Included in the completed activities is the effort to improve the readability of official USPS mail.

- Information briefings have been conducted with regional, divisional, and MSC Marketing and Communications Directors on automation communication plans.

- Several articles concerning our changeover to automation have appeared in newspapers and trade journals. There have also been many articles in-house to inform employees what automation is, why we are going to automation, and how they are impacted by automation. A major story discussing opportunities for employees in an automated environment was included in the spring issue of Postal Life.

4.1.3 Measure Success of Define and Communicate Corporate Goal

Reference is made to Chapter 4.9, Measure Success.

4.1.4 Program Area Committee Timeline

The PAC timeline of decision points for this strategy follows. A detailed description of each decision point is found in this section. The decision points and timelines in this section represent the major points in the Communications Support Plan between now and 1995.

For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

Indicates item is on SMC Timeline

Indicates item has been completed

Define and Communicate

	Fiscal Year 1989 Quarter 1	Quarter 2	Quarter 3
External	*(G.1)PMG announces automation goal at National Postal Forum, Washington, DC. **Responsibility: PMG** √ *(G.2)Launch external communications campaign. **Responsibility: CD** √ (G.110)Weave addressing message into holiday shop early/mail early publicity opportunities. **Responsibility: CD** √	(G.115)Produce video news release on proper addressing/readability to coincide with Creative Service campaign. **Responsibility: CD** (G.120)Publicize facility plans to keep pace with automation needs. **Responsibility: CD** √ (G.130)Target article on training today's employees for tomorrow's workplace. **Responsibility: CD** (G.135) Generate publicity from official mail addressing campaign. **Responsibility: CD** √	(G.140)Develop Communication Plan to introduce "wide-band" BCS modification. **Responsibility: CD & MK** (G.145)Coordinate support strategies regarding automation goals and upcoming labor negotiations. **Responsibility: CD** (G.150)Prepare plan with Government Relations to update field briefing materials for elected officials. **Responsibility: CD**
Internal	*(G.2)Launch internal communications campaign. **Responsibility: CD** √ (G.5)Distribute through Postal News Service divisional publications material on impact of new jobs and training plans. **Responsibility: CD** √ (G.10)Produce postal video network feature on cause/effect between USPS and automation goal. **Responsibility: CD** √ (G.15)Postal publications: Publish articles announcing goals, defining objectives, exploring workforce impact. **Responsibility: CD** √	(G.20)Implement internal addressing campaign for official mail. **Responsibility: CD** √	(G.25)Conduct regional communications training for field managers on how communications can support marketing objectives. **Responsibility: CD** (G.30)Postal publications: features "showcase" facilities, discuss training for new equipment, job opportunities. **Responsibility: CD** (G.35)Produce field Open House Kit for completion of multiline deployment. **Responsibility: CD** (G.40)Begin workfloor automation poster series. **Responsibility: CD** (G.45)Postal publications: SAPMG Human Resources interview. **Responsibility: CD**

Corporate Goal Timeline

Quarter 4	Fiscal Year 1990	Fiscal Year 1991	Fiscal Years 1992-1995
(G.105)Develop postmasters publicity kit on proper addressing/readability. **Responsibility: CD** *(G.155)Implement Communications Plan to introduce"wide-band" BCS. **Responsibility: CD & MK** (G.160)Place feature articles as remote video encoding tests begin. **Responsibility: CD** (G.165)Produce field materials for introduction of Phase III barcode sorters. **Responsibility: CD**	(G.170)Plan, develop, and execute remote video encoding deployment promotion plan. **Responsibility: CD & MK** (G.173)Announce "wide-band" BCS plans and highlight automation progress during National Postal Forum address. **Responsibility: CD & MK** (G.175)Support strategic pricing plans with business media publicity. **Responsibility: CD**	(G.180)Publicize joint labor/management successes regarding automation goals. **Responsibility: CD** (G.185)Coordinate regional/National Postal Forum progress publicity efforts. **Responsibility: CD**	(G.190)Provide update materials for Postmaster General National Postal Forum addresses on automation 1995 goal progress (FY 92). **Responsibility: CD** (G.195) Initiate "on-track" media campaign (FY 92). **Responsibility: MK**
*(G.50)Provide end of the year automation progress report materials. **Responsibility: CD** (G.55)Initiate direct contact plan sending automation-related mailings, payroll stuffers, etc. to employees. **Responsibility: CD** (G.60)Postal publications: Articles on delivery distribution concept selection explaining plans, method of selection. **Responsibility: CD**	(G.65)Produce "turn-key" career awareness conference presentation on automation (PQ-2). **Responsibility: CD** *(G.70)Include automation message in speech at annual management organizations state/national conventions. **Responsibility: CD** (G.75)Postal publication: Stories on new generation MLOCR, RVE, and "wide-band" deployment. **Responsibility: CD**	(G.80)Develop internal communication strategies relating to automation/workforce/ job security. **Responsibility: CD** (G.85)Update EI/QWL automation briefing materials. **Responsibility: CD** (G.90)Postal publications: facility requirements strategies. **Responsibility: CD**	(G.95) Update postmaster automation publicity kits (FY 92). **Responsibility: CD** (G.99)Postal publications: Articles on MLOCR requirements to support delivery distribution; flats BCS deployment, usage, benefits. **Responsibility: CD**

4.1.5 Decision Point Descriptions

Major Internal Efforts

(G.20) Implement internal addressing campaign for official mail - PQ 2/89.

The internal addressing campaign for official mail began at Headquarters December 1988 and expanded to the field January 1989. Two letters, one from Mr. Hunter to Headquarters personnel and the other from Mr. Coughlin to field divisions, announced the campaign and described its intent.

In February 1989, a test was conducted on a total of 10% of the official mail from Headquarters. Test mail did not include pouched mail, and all non-official mail was culled. Overall, 26.25% of all official mail was rejected.

Based upon the results of this survey, all secretaries were given copies of Publication 25 and Notice 221. Thirty secretaries have been trained to date with additional training and surveys being planned for the future.

Marketing has developed a training video to be used throughout the Postal Service. It will be distributed to all PEDCs and a letter of instruction sent to all regional, divisional and MSC managers.

G.25 Conduct regional communications training for field managers on how communications can support marketing objectives - PQ3/89.

No formal training sessions are scheduled. Information briefings have been conducted with regional, divisional, and MSC Marketing and Communications Directors on Automation Communications Plan.

G.30 Postal publications: features on "showcase" facilities, discuss training for new equipment, job opportunities - PQ3/89.

"Showcase" facility(s) as currently envisioned, would serve as test sites for state-of-the-art equipment, management practices and processing concepts. The

showcase facility idea is still under discussion within the Operations Support Group.

(G.35) Produce field Open House kit for completion of multiline deployment - PQ3/89.

The Communications Department will prepare and distribute an Open House kit to assist field installations in conducting Open House events that demonstrate multiline automation.

(G.40) Begin workfloor automation poster series - PQ3/89.

(G.45) Postal publications: SAPMG Human Resources interview - PQ3/89.

An interview will explore the views and perspective of the SAPMG, Human Resources, on the automation program and be published in the Postal Leader.

(G.50) Provide end of the year automation progress report materials - PQ4/89.

Material will be developed and distributed to field divisions to assist in the preparation of FY automation progress reports.

(G.55) Initiate direct contact plan sending automation-related mailings, payroll stuffers, etc. to employees - PQ4/89.

Distribute information related to the 1995 barcoding/automation goal to employees by direct mail, stuffers with paychecks, and other available means.

(G.60) Postal publications: articles on delivery distribution concept selection explaining plans, method of selection - PQ4/89.

Articles will be published in the Postal Leader, Postal Life and other in-house publications explaining development and selection of automation concepts, new equipment, and impact on employees.

(G.65) Produce "turn-key" career awareness conference presentation on automation - PQ1-4/FY90.

(G.70) Include automation message in speech at annual management organizations state/national conventions - PQ1-4/FY90.

(G.75) Postal publications: stories on new generation MLOCR, RVE, and "wide-band" bar code reader deployments - PQ1-4/FY90.

(G.80) Develop internal communications strategies relating to automation/work force/job security - PQ1-4/FY91.

(G.85) Update EI/QWL automation briefing materials - PQ1-4/FY91.

(G.90) Postal publications: facility requirements strategies - PQ1-4/FY91.

(G.95) Update postmaster automation publicity kits - FY92-95.

(G.99) Postal publications: articles on MLOCR requirements to support delivery distribution; flats BCS deployment, usage, benefits - FY92-95.

Major External Efforts

(G.105) Develop postmaster's publicity kit on proper addressing/readability - PQ4/89.

An extension was necessary to ensure the kits were properly made up. Dissemination will be to: Level 1 & 2 Divisions; Level 1, 2 & 3 MSC's; Marketing Directors; Communication Managers; and Merchandising & Promotion Departments. The information kits will include the basic release, speech material, visual aids for group presentations and suggestions to extend the life of the automation message through open houses, civic organizations, etc.

(G.115) Produce video news release on proper addressing/readability to coincide with Creative Services campaign - PQ2/89.

The video news release idea was scrapped in favor of an idea to feature the Engineering and Development Center in a 20 - 30 minute video tour for potential use at PCC, local cable channels, etc.

(G.120) Publicize facility plans to keep pace with automation needs - PQ 2/89.

Facility publicity plans have, thus far, centered on Kit-of-Parts program. Internal publications and several external media placements have detailed USPS Kit-of-Parts project plans.

(G.130) Target article on training today's employees for tomorrow's workplace - PQ 2/89.

A story in the spring issue of Postal Life discussed opportunities for employees in an automated environment.

(G.135) Generate publicity from official mail addressing campaign - PQ 2/89.

Industry media and internal publicity pick-ups on USPS National Account story.

The internal addressing campaign was publicized internally to managers via Postal Leader and externally to customers through Memo to Mailers. Several industry trade publications also mentioned the campaign and gave it the kind of coverage expected by most observers – it is a logical change but one with no impact on the mailing industry.

A follow-up article is planned for a late Spring, early Summer issue of Postal Leader. There are no plans for follow-up in Memo to Mailers.

(G.140) Develop Communications Plan to introduce "wide-band" bar code reader modification - PQ3/89.

This decision point refers to the plan to develop BCS capability to read bar codes adjacent to the address block.

(G.145) Coordinate support strategies regarding automation goals and upcoming labor negotiations - PQ3/89.

Develop and coordinate with Human Resources and other departments, communications to support strategies regarding automation and labor negotiations.

(G.150) Prepare plan with Government Relations to update field briefing materials for elected officials - PQ3/89.

Coordinate with Government Relations Department in development of materials and information necessary to assist field management in briefing elected officials regarding automation.

(G.155) Implement Communications Plan for promoting "wide-band" bar code reader - PQ3/89.

See G.140.

(G.160) Place feature articles as remote video encoding tests begin - PQ4/89.

(G.165) Produce field materials for introduction of Phase III bar code sorters - PQ4/89.

Develop and provide field management with materials for conducting press briefings/open houses with introduction of Phase III bar code sorting equipment.

(G.170) Plan, develop and execute remote video encoding deployment promotion plan - PQ1-4/FY90.

(G.173) Announce "wide-band" bar code reader plans and highlight automation progress during National Postal Forum address - PQ1-4/FY90.

(G.175) Support strategic pricing plans with business media publicity - PQ1-4/FY90.

(G.180) Publicize joint labor/management successes regarding automation goals - PQ1-4/FY91.

(G.185) Coordinate regional/national postal forum automation progress publicity efforts - PQ1-4/FY91.

(G.190) Provide updated materials for Postmaster General National Postal Forum addresses on automation 1995 goal progress - FY92-95.

(G.195) Initiate automation "on-track" media campaign - FY92-95.

4.1.6 Summary

The Communications Department has developed a comprehensive communications plan in support of the Corporate Automation Plan. The Communications Support Plan identifies internal and external audiences, their needs, appropriate messages and proposed communications vehicles.

Customer and market segments with a wide-range of mailing needs and capabilities are addressed to inform them and gain their assistance in moving mail up the "automation ladder". Likewise, our internal audience, postal employees at all levels, will have their informational needs met.

CHAPTER 4.2 OPTIMIZE CUSTOMER PARTICIPATION

4.2.1 Background

Customers will play a major role in the automation process through worksharing and participation in pre-barcoding. The "buy-in" of over one million business customers in the small to large category is needed for the full success of automation. Consequently, the USPS needs to increase its communication efforts and broaden its marketing effort to develop customer awareness and optimize participation.

In order to gain customer support, attention will be focused in four major areas:

- Policy
- Product and Promotion Support
- Field Support
- Market Research/Data Collection

The Automation Integration Status Report of October 1987 and subsequent focus groups of postal managers recommended that specific actions be undertaken in each area toward the goal of improving customer participation in long-term automation plans.

Policy decisions will be sought to clarify our customer relationships with collateral agents, determine what technologies and strategies will be most effective in reducing Postal Service and customer costs, and determine proper levels of regulation and pricing.

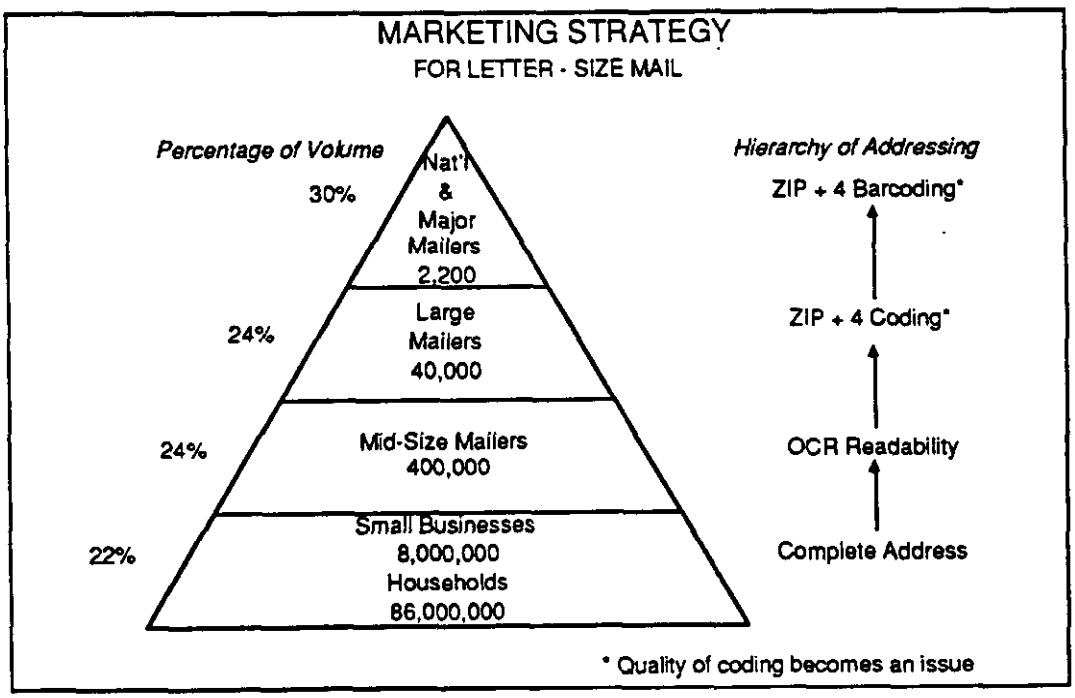
Product and Promotion Support provides the incentives and options for expansion of potential markets for automation compatible mail. The issue of how to communicate long-term automation plans to customers and postal employees is an integral step to reaching the markets.

Field Support means and levels of technical support for our customers will be determined.

Market research using tools such as customer profiles, mail stream, and volumes will provide the necessary data to update automation strategies. Identification of the customers in each mail segment will serve to further enhance marketing efforts and strategies.

A key to customer participation is the ability to define and communicate automation goals and provide rate incentives. Sound policy decisions, promotion, field support, and effective market research will enhance and increase the level of customer participation in the program.

The following illustration, Marketing Strategy for Letter Size Mail, demonstrates the overall goals and priorities. Moving up the "pyramid" brings the target segment into the barcoded mail stream at a more advanced level of automation readiness. For instance, strategies aimed at national and major mailers could be designed to bring them into barcoding while strategies aimed at households would emphasize, at a minimum, complete addressing.



The "pyramid" is an indicator of the need for well developed strategies for each customer segment and the need to allocate available resources accordingly.

4.2.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- To specify marketing plans for customer barcoding, the Market Plan, Automaton Promotion Plan, and Marketing Activity Calendar FY89-90 were completed.

- A Marketing and Communications strategy for corporate automation has been developed. This strategy will be utilized for communicating with both internal and external audiences about the USPS automation plans.

- The SMC established a policy to integrate operations, rates, and marketing strategies through the development and issuance of the CAP.

- The USPS in-house program and the University of Arkansas effort to develop a Wide Area Bar Code Reader (WABCR) are proceeding on schedule. The Stanford effort is somewhat behind. Testing of engineering models should take place in the summer of 1989. Expectations are that deployment of production engineered WABCRs can start in late 1991, if acceptable performance criteria is met.

- To examine the technical automation support being provided to customers and to review the automation management being employed in the field, a review of several field sites was conducted. A draft report was prepared and presented to the S&P PAC on January 31, 1989.

- In October 1988, a draft flat mail bar code specification was issued. The draft was shared with mailers and equipment vendors for their input. The revision included input from customer and equipment manufacturers and was presented to the ABC Flat Mail Subcommittee on March 9, 1989.

- Forecasts of customer applied bar codes through 1995 were presented to the DPMGs Pricing Strategy Group on January 12, 1989. The forecasts were based on various pricing, technology, and make-up assumptions.

4.2.3 Measure Success of Optimize Customer Participation

The Optimize Customer Participation strategy is critical to the overall success of the Corporate Automation Plan. Through worksharing efforts, during PQ2/89, the following measurements are noted:

- Mailer applied nine-digit bar codes were applied to 85 million outgoing First- and third-class letter mail pieces. This accounts for approximately .3 percent of the total letter mail base.

- Pre-printed nine-digit bar codes were applied to 1.26 million Courtesy Reply Mail (CRM) pieces by the mailer. This accounts for approximately 4.9 percent of the total letter mail base.

- Pre-printed nine-digit bar codes were applied to 212 million Business Reply Mail (BRM) pieces by the mailer. This accounts for approximately .8 percent of the total letter mail base.

To increase the amount of mailer applied nine-digit bar codes, efforts are underway to develop a "Wide Area Bar Code Reader" (WABCR). This will allow customers to print the bar code and address at the same time and in the same place.

4.2.4 Program Area Committee Timeline

The Program Area Committee (PAC) timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.2.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

* Indicates item is on the SMC Timeline

√ Indicates item has been completed

Optimize Customer

	Fiscal Year 1988 Quarter 4	Fiscal Year 1989 Quarter 1	Quarter 2
Policy	(C.5) Prepare definition of Corporate Automation Strategy. **Responsibility:MCG** √	*(C.10) Establish policy to integrate operations, rates, and marketing strategies. **Responsibility: SMC** √	(C.20) Establish standards for customer applied bar codes for flats. **Responsibility: ES** √
Product and Promotion Support	*(C.100) Develop/implement marketing plans and goals to increase customer barcoding of letters. **Responsiblity: MK** √ *(C.105) Initiate development of wide band (address block) bar code reading for letter mail. **Responsibility: ES** √ *(C.110) Complete comprehensive communications plan — related to internal and external communication of corporate goal. **Responsibility: MCG** √	*(C.115) Develop long-term communications plans. **Responsibility: SMC** √ (C.120) Begin execution of automation advertising, promotion, and communications plan. **Responsibility: MCG** √	
Field Support	(C.200) Initiate action plan to strengthen technical guidance to customers producing mail that should be automation compatible. **Responsibility: MP&MK** √		
Market Research/ Data Collection	(C.300) Complete market study among cash managers on ARM concept. **Responsibility: MK** √ (C.305) Initiate mail characteristics data collection. **Responsibility: TRD** √ (C.310) Publish automation promotion effectiveness study. **Responsibility: MK** √ (C.315) Receive initial Market Analysis Information System (MAIS) Automation Study data. **Responsibility: MK** √	(C.320) Publish ZIP+4 Barcoding Study. **Responsibility: MK** √	*(C.330) Forecast volume of customer-applied bar codes based on various marketing, pricing, and technology assumptions. **Responsibility: MK** √

Participation Timeline

Quarter 3	Quarter 4	Fiscal Year 1990	Fiscal Years 1991-1995
*(C.25) Incorporate readability goals in the scorecard. **Responsibility: ER**	*(C.30) Incorporate consistency into service definition for automation compatible mail. **Responsibility: MK** *(C.33)Select distribution concep & type of bar code (ZIP+4 or ABC) for nat'l implementation. **Responsibility: DT**	(C.35) Develop specifications for the address block bar code that offer flexibility for customers. (PQ1) **Responsibility: ES & MK**	*(C.40) Evaluate role of work- sharing by customers to provide sequencing of letters and flats for the carrier. (PQ1, FY91) **Responsibility: S&P PAC**
	(C.125) Launch public service advertising aimed at the general public. **Responsibility: MK** *(C.130) Achieve 2 billion customer barcoded letters (non-reply mail). **Responsibility: MK** *(C.135) Develop marketing strategy to respond to a selected delivery distribution concept which gives customers a role in mail preparation. **Responsibility: MK**	*(C.140) Modify marketing plan and goals to include flats pre-barcoding. (PQ1) **Responsibility: S&P PAC** (C.145) Modify marketing plans to reflect changes in: strategic pricing plan, ability to read bar codes in address block, mail make-up require-ments, and new presort programs resulting from selected delivery distribution concept. (PQ1) **Responsibility:MK** *(C.150) Deploy wide-band bar code reader modifications. (PQ2) **Responsibility: ES** (C.155) Conduct national campaign to announce ability to read bar codes in the address block. (PQ2) **Responsibility: MK&CD**	(C.160) Review, modify as necessary, and implement marketing plans to reflect changes in pricing, technology, changes to delivery distribution concept. (PQ1 FY91) **Responsibility: MK** (C.165) Review, modify as necessary, and implement marketing plans to reflect changes in pricing and technology. (PQ1 FY92) **Responsibility: MK**
*(C.210) Complete review to strengthen technical guidance. **Responsibility: OP & MK**		(C.205) Deploy acceptance unit decoder equipment for barcoded mail. (PQ 2) **Responsibility: ES**	
*(C.325) Study the consistency of delivery for automation compatible mail. **Responsibility: OP** (C.335) Publish interim analysis and tabulation of MAIS data. **Responsibility: MK**	(C.337) Assess impact of the ABC concept on customer's potential to workshare. **Responsibility: MK** (C.340) Publish MAIS Automation Study Report. **Responsibility: MK**	(C.345) Update/Refine MAIS Automation data collection. (PQ1) **Responsibility: MK** (C.350) Forecast volume of customer barcoded letters - (non-reply). (PQ4) **Responsibility: MK**	

4.2.5 Decision Point Descriptions

Policy

(C.20) Establish standards for customer applied bar codes for flats- PQ2/89.

As part of the efforts for the Automation and Bar Code (ABC) Group, the bar code selection for flats will include input from the customers.

A draft Flat Mail Bar Code specification was issued in October 1988. It has been shared with mailers and equipment vendors since then through channels such as ABC, ABC Support Group, MTAC, and personal contacts. Customer and equipment manufacturer input was included in the revision which was presented to the ABC Flat Mail Subcommittee on March 9. Samples similar to the attached were printed for customers, with their name, address, etc., at the Southern Region Postal Forum.

(C.25) Incorporate readability goals in the scorecard - PQ3/89. SMC ITEM

Baseline readability information will have been established by PQ2/89 for each automated site through the letter mail readability measurement system. Beginning with PQ3/89, readability improvement goals will become a part of the Field Division General Manager's scorecard.

(C.30) Incorporate consistency into service definition for automation compatible mail - PQ4/89. SMC ITEM

As part of the achievement of "improved value of service", automation compatibility needs to be linked with consistency and reliability.

(C.33) Select distribution concept and type of bar code (ZIP+4 or ABC) for national implementation - PQ4/89. SMC ITEM

The CAP, approved by the SMC in October 1988, based its savings on full sector segment distribution with consideration of a carrier walk sequence distribution concept occurring in PQ4/90 (see D.62). Since that time, an innovative concept was proposed. An Advanced Bar Code (ABC) could be used to prepare the carriers' mail in delivery walk sequence. Due to the impact that a new bar code could have on worksharing incentives, the SMC requested the SAPMG for Marketing & Communications to prepare a timeline for the distribution concept decision. The decision was originally scheduled to be made in October 1989. During a distribution and equipment concept meeting in April, the APMG for the DD&T Department advanced the decision to July 1989.

(C.35) Develop specifications for the address-block bar code that offer flexibility for customers - PQ1/90.

Specifications for address-block bar code placement will include input from customers, such as members of the Automation and Bar Code Group.

(C.40) Evaluate role of worksharing by customers to provide sequencing of letters and flats for the carrier - PQ1/91. SMC ITEM

There may be a role for customers or their agents in the sequencing and merging of letters and flats for the carrier. These alternatives will be examined under the "lowest combined cost" umbrella.

Product and Promotion Support

(C.125) Launch public service advertising aimed at the general public - PQ4/89.

A series of public service television advertisements will be produced that are aimed primarily at the general public. These advertisements will focus on the benefits to the general public for placing a complete address on the mail pieces.

Public service advertising creation and production has been delayed to reevaluate what the "complete address" message should include and how it fits into the total address hierarchy advertising strategy. Recommendation of USPS definition of "complete address" (R.17) was also completed in PQ2/89. This item has been rescheduled to PQ4/89.

(C.130) Achieve two billion customer barcoded letters (non-reply mail) - PQ4/89.

The marketing goals for customer barcoding of non-reply letters is two billion pieces for FY89.

(C.135) Develop marketing strategy to respond to selected delivery distribution concept which gives customers a role in mail preparation - PQ4/89. SMC ITEM

When the delivery distribution concept is selected by Operations, the role of customer preparation of mail must be defined.

(C.140) Modify marketing plan and goals to include flats pre-barcoding - PQ1/90. SMC ITEM

Upon selection of a bar code for flats, marketing efforts will be directed toward customer use of bar codes for non-carrier route presort flats.

(C.145) Modify marketing plans to reflect changes in: strategic pricing plan; ability to read bar codes in address block; mail make-up requirements;

and new presort programs resulting from selected delivery distribution concept - PQ1/90.

(C.150) Deploy wide-band bar code reader modifications - PQ2/90. SMC ITEM

(C.155) Conduct national campaign to announce ability to read bar codes in the address block - PQ2/90.

Marketing plans will include promotion efforts to let customers know about the alternate location for placing bar codes.

(C.160) Review, modify as necessary, and implement marketing plans to reflect changes in pricing, technology, changes to delivery distribution concept - PQ1/91.

(C.165) Review, modify as necessary and implement marketing plans which reflect changes in pricing and technology - PQ1/92.

Field Support

(C.205) Deploy acceptance unit decoder equipment for barcoded mail - PQ2/90.

Two test units will be deployed in field sites in PQ3/89 after implementation of software revisions to include firms and BRM codes in the directory. Assuming satisfactory test results, national deployment of the computer systems could begin in late 1989. This will allow verification of ZIP+4 mailings. POSTNET decoders to integrate with the computer systems for barcoded mailings will be available in early 1990.

(C.210) Complete review to strengthen technical guidance - PQ3/89. SMC ITEM

The review of the technical support team in the field will include a final recommendation for organization and staffing for the field technical support team.

Market Research/Data Collection

(C.325) Study the consistency of delivery for automation-compatible mail - PQ3/89. SMC ITEM

A study will be conducted to determine service performance of automated versus non-automated mail. Service improvements for automation-compatible mail will be of considerable importance to business mailers. Rescheduled to PQ3/89.

(C.330) Forecast volume of customer-applied bar codes based on various marketing, pricing, and technology assumptions - PQ2/89. SMC ITEM

Forecasts of customer applied bar codes through 1995 based on various pricing, technology, and make-up assumptions were presented to the DPMG's Pricing Strategy Group on January 12, 1989.

(C.335) Publish interim analysis and tabulation of MAIS data - PQ3/89.

Interim analyses and tabulations will be available from the automation portion of the MAIS study.

(C.337) Assess the impact of the ABC concept on customer's potential to workshare - PQ4/89.

Marketing will conduct focus groups in July to assess the impact of the ABC concept on customer worksharing. The information gathered will be factored into the distribution concept decision (C.33).

(C.340) Publish MAIS automation study report - PQ4/89.

Final tabulations, analyses, and a written report will be available in PQ4/89.

(C.345) Update/refine MAIS automation data collection - PQ1/90.

Based on some of the findings in the Automation MAIS study, refinements and additional research may be necessary to clarify and further define issues with various segments of the customer base. Follow-up research is planned.

(C.350) Forecast volume of customer barcoded letters - PQ4/90.

Marketing goals for customer barcoded non-reply letters will reflect changes in bar code location and any changes in pricing and make-up requirements.

4.2.6 Summary

An effort was made to link the decision points in this strategy to the national marketing and communications plans and to the existing plans in the Rates and Classifications Department for future rate cases.

Some of the major efforts in the S&P PAC plan submitted for the Optimize Customer Participation strategy include:

- Data Requirements/Market Research
  - Automation study/MAIS national survey
  - Mail characteristics study
  - Special studies
  - Additional requirements from other functional areas
- Advertising/Promotion/Communications
  - Marketing Plans with specific goals
  - Commercial Customers
  - Paid media and direct mail
  - Personal selling - national, key, and major accounts
  - General public communications plan
  - Postal employee awareness plan
- Field Support
  - Examine technical support team positions/functions
  - Build stronger teams

The Postmaster General has stated, "We'd like to make pre-barcoding a very attractive worksharing opportunity — so mailers would do a great deal more." Increasing customer participation is critical to the success of the strategies for improving addressing and readability and forecasting equipment and space requirements. In the next two to three years, customers will need to make decisions about their level of participation in the automation program. Based on the level of customer "buy-in" to the automation program, the USPS will make remaining equipment investment decisions necessary to meet the 1995 goal which, in turn, will have some impact on the relative value of customer applied bar codes. It is imperative that we obtain the customers' cooperation and participation as soon as possible in the automation program.

CHAPTER 4.3 IMPROVE ADDRESSING AND READABILITY

4.3.1 Background

The Improve Addressing and Readability strategy has the most potential to realize immediate savings and service improvements. The strategy focuses on the Corporate Automation Plan (CAP) Goal for barcoded mail with attention focused in five areas: address quality improvement, technology to improve existing equipment, customer barcoding, field technical support to customers, and Remote Video Encoding (RVE).

Simulation modeling estimates that Multiline Optical Character Readers (MLOCRs) and Bar Code Sorters (BCSs) will reject over 18 billion letters in 1989. To reduce these volumes and achieve the 1995 goal of an automated barcoded letter mail stream, improving addressing and readability is critical. Increasing the BCS accept rates by two points (net) and the MLOCR nine-digit encode rates by three points (net) could save the Postal Service approximately $115 million in FY90.

Due to expanding the Single Line Optical Character Reader (SLOCR) to MLOCR-like coding capabilities, the Delivery, Distribution and Transportation Department has redefined what is meant by a readable mail piece:

- Readable/Legible
- Barcoded to Nine digits
- Accurate
- Finest Depth of Code

An "automation-readable" mail piece is read and coded with more than five digits and has a bar code that can be read by the BCS. The definition updates the term "readable" as it pertains to the MLOCR environment and places significance on increasing the nine-digit encode rate, as well as increasing acceptance rates.

Some portion of the mail will remain uncoded even after aggressive efforts to improve readability. RVE will be necessary for this volume of non-barcoded mail, which requires human intervention in the application of barcodes.

Improvements in addressing and readability based on pricing, marketing, and technology will dictate the percentage of mail that must be coded using RVE.

Readability encompasses a wide range of issues including mail piece characteristics, address block format and content, print quality, machine performance – both hardware and software – as well as operational procedures. These issues require a wide range of functional involvement and must be closely coordinated to achieve success.

An integrated, multi-functional approach to improving addressing and readability is supported by field technical positions. The technical support team consists of the following personnel:

- Automation Readability Specialists and Directory Analysis Specialists
- Account Representatives and Technical Service Representatives
- Address Information and Operation MAIL personnel
- Machine Maintenance, Engineering Technical Unit and Quality Control personnel

The "TEAM" approach to resolving readability-related issues ensures consistent technical support to customers and coordinates automation programs within a facility. The team approach allows for greater communication between all functional areas.

The cross functional mix of personnel is vital since the Improve Addressing and Readability strategy is interdependent with the Strengthen System Integrity/Quality, Optimize Customer Participation, and Price Strategically strategies. The Strengthen System Integrity/Quality strategy addresses improving the accuracy of customer address lists, and the Optimize Customer Participation strategy relates to increasing the support and participation of customer barcoding and worksharing (allowing the Postal Service to increase the amount of correctly read mail). Pricing can be used to encourage customers to provide automation compatible mail.

The following section, 4.3.2, describes the progress made to date in this strategy.

4.3.2 Summary of Strategy Progress

The Improve Addressing and Readability strategy is a critical part of the overall Corporate Automation Plan. Since PQ4/88, the following progress has been made:

- The Postmaster General issued a policy statement ensuring that Postal Service generated mail be automation compatible. This policy demonstrates to field management and the mailing industry the critical nature of readability to corporate automation goals. The policy demands that the USPS generates readable mail and takes part in worksharing efforts such as barcoding.

- The SMC approved a headquarters readability focal point in the Operations Systems and Performance Department to facilitate resolution of field readability-related issues. The focal point serves as a "clearinghouse" function to centralize internal addressing and readability-related inquiries and to disseminate information.

- The former Mail Processing Department and the Office of Industrial Engineering established a Letter Mail Readability Index (LMRI) baseline at each division. The index tracks facility read rates by source type by accounting period (currently for originating, non-presort letter mail only). LMRI is a quantitative measurement of the entire letter mail base readability.

- The Regional Postmasters General (RPMGs) agreed to Regional and Divisional readability improvement goals to be incorporated into PCES objectives in mid FY89.

- The Engineering and Technical Support Department formed a Headquarter's Automation Improvement Focus Committee to review and consolidate all automation improvement efforts currently under way. The primary objective is to examine modifications to existing equipment as well as the impact of future modifications and equipment.

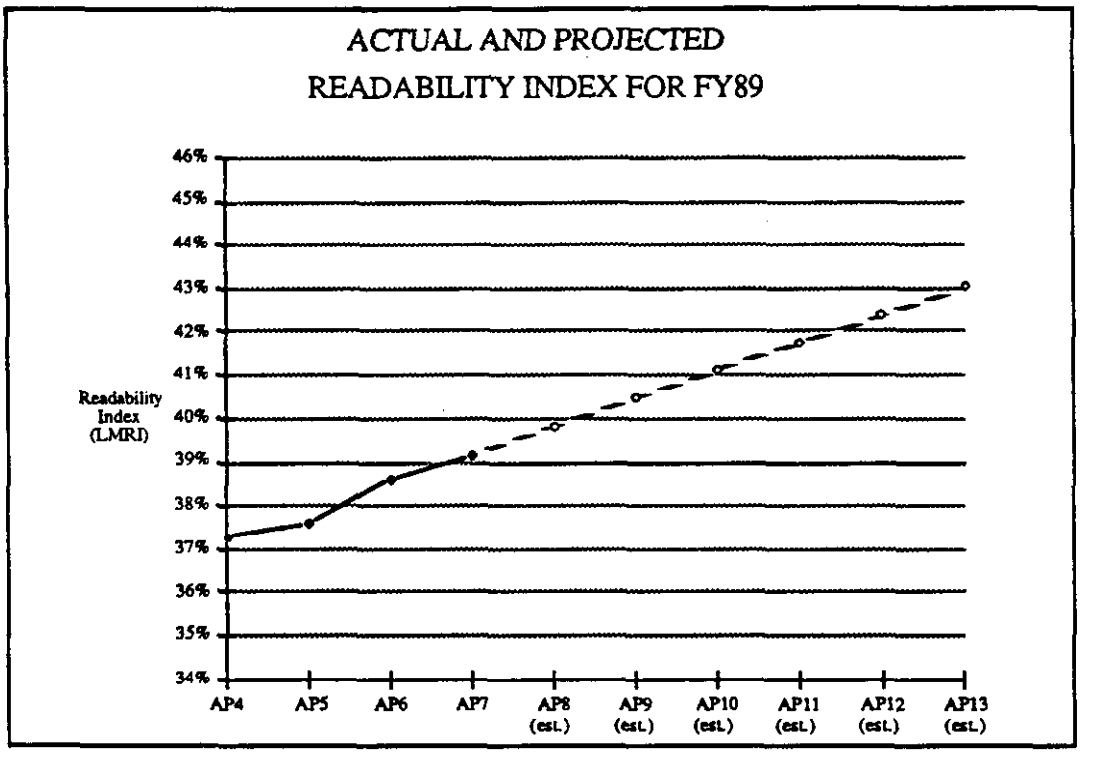
- The Office of Maintenance Management has identified ten evaluation sites and met with representatives from several of those sites to identify non-read problems on bar code sorters. The Bar Code Readability Improvement Focus Group is addressing nationwide improvement of bar code readability, and the impact of MLOCR operations on ElectroCom (ECA) and Bell & Howell Bar Code Sorter performance.

- The Office of Automation Integration, in support of the Technology Program Area Committee (TPAC) objectives, sponsored a meeting of field Operations and Marketing personnel in February. The meeting focused on the field potential for improving addressing and readability. The group estimated that by using a more aggressive, fully supported approach, they could improve letter mail readability by 20 points through 1995 without technology improvements. The participants also formulated strategies for improvement and identified issues that should be addressed to ensure the success of the Improve Addressing and Readability strategy.

4.3.3 Measure Success of Improve Addressing and Readability

Due to the deployment of MLOCRs, new indicators have been implemented to discern improvement trends in automation performance. These measurement systems described in this section track both quantity and quality of bar codes as well as accept rates.

- LMRI – The Letter Mail Readability Index tracks improvements in addressing and readability. LMRI employs a statistical sampling by source type and uses a weighted factor of First Handling Pieces (FHP) percentage to determine facility read rate. During PQ2/89, the national LMRI has shown a two point increase, and an FY89 straight line projection follows:



- DCMP – The Depth of Code Measurement Program assesses the quality of the nine-digit bar codes being produced by each site's MLOCR complement, as well as for mailer applied bar codes. Data is collected on whether the bar code applied is correct and is the *best* choice of codes available for the mail piece address. The program was tested at six pilot sites. The table below shows frequency counts of the indicated observed record type of the bar code and the indicated finest record type available, according to a look-up of the address in the National Directory Support System (NDSS).

DEPTH TABLE
NATIONAL SUMMARY

Facility =All Mail type = All

Finest Available Record Type

Bar Code Record Type	S	R	H	P	F	TOTAL
5D	498	27	134	239	143	1041
5	164	5	15	48	46	278
S	2509		22	5	207	2743
R		64				64
HD			84		20	104
H			471		58	529
P				1122	1	1123
F					756	756
TOTAL	3171	96	726	1414	1231	6638

Finest bar code: 4922
Finest code rate (%): 74.1

The DCMP national baseline test will be expanded to all MLOCR sites in AP 9, FY89. Regional training sessions for Multiline Directory Analysis Specialists and Address Programs Support/Address Information Systems Managers have been scheduled.

- DUSQ – The Delivery Unit Secondary Quality (DUSQ) is a comprehensive quality control data collection and reporting program that is specifically designed to develop diagnostic information about a facility's secondary mail sorting activities. DUSQ can be used to identify MLOCR directory errors as well as BCS sort scheme errors. DUSQ will also identify mailers who are using incorrect/incomplete address information.

These reports are barometers for measuring the improvement rates in readability of the mail base.

4.3.4 Program Area Committee Timeline

The Program Area Committee (PAC) timeline of decision points for this strategy follows. A detailed description of each decision point is provided in 4.3.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

& Readability

Quarter 2 (continued)	Quarter 3	Quarter 4	Fiscal Years 1990-95
(R.30) Develop and disseminate basic rules of address standardization. **Responsibility: AIS** ✓ (R.35) Develop and implement an automated system to convert rural route to city style addresses. **Responsibility: AIS**	*(R.40) Tie automation goals into division manger's FY 89 scorecard and PCES objectives. **Responsibility: ER** (R.45) Establish 1993 target read rates for each division and incorporate into division manager's scorecard as annual quantitative goals **Responsibility: OSP** (R.50) Determine scope of problem with unreadable and incorrectly addressed BRM and CRM. **Responsibility: DDT**	(R.55) Review status of CASS, ZIP+4, Carrier-Route Presort, and five-digit carrier route presort. **Responsibility: AIS**	
	(R.105) Recommend rate and classification changes to promote automation compatibility among presort mailers. **Responsibility: RC**	(R.115) Conduct pre-barcode readability study and assess affect on pre-barcode discounts. **Responsibility: RC**	
	(R.235) Test concepts for technical support teams. **Responsibility: S&P PAC** (R.245) Recommend concept(s) to organize & staff field technical support teams. **Responsibility: S&P PAC**	(R.250) Develop and implement Address Correction System (ACS) Nixie Feedback System. **Responsibility: AIS**	
(R.350) Deploy system to standardize and manage walk-sequence address lists. **Responsibility: AIS** (R.355) Develop and implement third-class address change service. **Responsibility: AIS & MK** ✓	(R.360) Complete study to quantify non-read and error causes for each type of automated equipment. **Responsibility: DDT**	*(R.340) Fund development and testing of device to automate checking of address accuracy and readability. **Responsibility: ES or TR** (R.365) Develop readability improvement strategies based on non-read and error causes and customer segments. **Responsibility: DDT & MH**	*(R.370) Deploy Part B multiline OCRs. (PQ2/90) **Responsibility: ES** (R.375) Deploy local-area based NCOA. (PQ2/90) **Responsibility: AIS** *(R.380) Automate process to check readability and address accuracy at bulk mail acceptance units. (PQ2/90) **Responsibility: ES or TR**

4.3.5 Decision Point Descriptions

Policy

(R.15) Establish responsibility and allocate resources for Headquarters management of the readability program - PQ1/89. SMC ITEM

Subject to SMC approval of the Technology Program Area Committee (TPAC) proposal, authority and funding may be required to establish a headquarter's focal point for managing the readability program.

The SMC approved a headquarters readability focal point, in the Operations Systems and Performance Department (OSPD), to facilitate resolution of field readability-related issues. The focal point serves as a "clearinghouse" to centralize inquiries and disseminate information.

(R.17) Determine if Zip+4 Codes should be included in the definition of a complete address (PD & MK) - PQ2/89.

The final recommendation to the TPAC chairman included the ZIP+4 Code in the definition of a "complete address". The recommendation concluded that the USPS would not specifically promote use of the ZIP+4 numeric codes to the general public nor require their use of ZIP+4. However, the general public and small volume mailers should be encouraged to use ZIP+4 Codes in their return address and when filling out address information forms .

(R.20) Develop addressing policy with standards for assignment of street addresses and notify local government - PQ2/89.

The addressing requirements which are developed should be communicated to city, county, and other governmental bodies to guide them in assigning street names and numbers.

The Office of Address Information Systems (AIS) has developed recommended address standards that will be further evaluated, refined and

incorporated into AIS products for use by various municipalities to guide them in assigning street names and numbers.

A management instruction on standard address conventions has been developed. It describes the involvement by the divisions and MSCs with municipal address planning authorities as it relates to addressing in newly developing delivery areas and in the conversion of rural route and box addresses to city-style addresses. This management instruction is in the formal clearance process at Headquarters. With the exception of Labor Relations, all departments and offices have signed off. Through Labor Relations, we have sent the management instruction to the rural and city letter carrier unions for pre-clearance review. When clearance is received from all parties, the management instruction will be given to Document Control for publication. This management instruction also describes the process by which the field is to develop and collect the information to be used in the Locatable Address Conversion System (LACS).

(R.25) Develop and deliver training for proper techniques in developing address lists - PQ2/89.

A program is needed that includes a list of benefits of coding services and the most accurate sources for address lists. The candidates for these include voter registrations, tax rolls, telephone companies, state vehicle, and driver's license bureaus.

An extensive AMA-type course has been developed, and we are currently proofing it prior to its publication. The course is structured to be used in part, or in its entirety, to train audiences on AIS products and services used to improve address quality or address list quality. We plan to begin using it for training in May/June 1989.

(R.30) Develop and disseminate basic rules of address standardization - PQ2/89.

The USPS is in the process of developing the rules for address standardization. The use of these rules will increase the mailer's ability to comply with standardized delivery addressing data elements, and enhance the quality of

addresses to increase readability. These rules are being developed with input from the mailing industry.

We are developing a process to standardize business/firm names. We will input standardized business names into our ZIP+4 files and provide this information to the mailers. This will enable the mailers to extract the most precise ZIP+4 Codes for firms from ZIP+4 files. Using these codes in their mailings will result in the finest depth-of-sort available. This process will also be developed in cooperation with the mailing industry.

Final revisions of the addressing standards were distributed to major mailers at the February MTAC meeting and have been distributed to field AIS units. Development of standardized business/firm names is in progress.

The standardized business firm names for the Houston area will be available in April 1989, and 10,000 largest firms will be available in June 1989.

(R.35) Develop and implement an automated system to convert rural route to city style addresses - PQ2/89.

We will develop and implement an automated system to update the mailing lists after a municipality has converted from a rural route type addressing to a city style addressing. (This is often due to the implementation of the 911 emergency system to provide physical locations.) For computerized mailers, this will replace the current manual list correction process. The automated process will standardize addresses and add ZIP+4 Codes to enhance readability.

This service could be offered by National Change of Address (NCOA) licensees.

Locatable Address Conversion System (LACS) will be used by mailers to update their address lists after a municipality has converted (most often after implementation of the 911 emergency system) from rural route and box number to city-style addressing. LACS will provide mailers with a list updating approach similar to that used in the NCOA System. LACS software is currently being tested at two sites (Richmond, VA and Nashville, TN). Nationwide data collection

efforts are underway, and this system will be available to mailers by summer of 1989.

(R.40) Tie automation goals into division manager's FY 89 scorecard and PCES objectives - PQ3/89. SMC ITEM

It is felt that improving readability provides enough opportunity to reduce direct labor costs that it warrants a goal on division managers' "scorecards".

A decision has already been made to establish regional goals for readability improvement. Mr. Kane, APMG, Delivery, Distribution and Transportation (DD&T) Department, reported that he had met with the RPMGs and they had agreed to take part in a readability measurement program that would involve quantitative readability improvement goals in PCES objectives as of mid-year FY89. Readability improvement goals will be set jointly between Operations and Marketing, taking into account additional equipment deployment and the need for developing a customer contact strategy.

(R.45) Incorporate automation goals into FY 90 budget call - PQ3/89.

Barcoding virtually all mail by the end of 1995 will require making trade-offs among a mix of barcoding strategies. These strategies include: customer applied bar codes, MLOCR and BCS technology improvements, addressing and readability improvements by field Operations and Marketing, and Remote Video Encoding. To determine future equipment needs and reduce capital investments, it is essential that we estimate how many bar codes the field can generate through addressing and readability improvements.

The OSPD is establishing measurement systems that support a goal setting process and measures the facility accept rate, accuracy of barcoding and depth of coding. OSPD will coordinate with DD&T, Marketing, and the field to forecast the field potential for increasing the number of bar codes applied by automation and the associated costs and risks of meeting that potential. The divisions' target read rate will be based on the subgroup's focus after full consideration of trade-offs among the barcoding strategies.

(R.50) Determine scope of problem with unreadable and incorrectly addressed BRM and CRM - PQ3/89.

The Southern Region Director of Operations Support has identified over one-hundred examples of BRM, with incorrect ZIP Codes, wrong bar codes, and wrong Facing Identification Marks (FIM). There may be significant volumes of BRM system-wide which need improvement. The Domestic Mail Manual (DMM), section 917, requires that business reply mail formats meet specified guidelines. However, section 917 does not require approval in advance, and it does not require readability. Sortation of this mail could be improved if we enhance the regulations and assist customers with mail piece designs.

In addition, the TPAC noted that a recent informal survey showed 40 percent of the sampled BRM contained errors. The Engineering and Technical Support and Mail Processing representatives were assigned responsibility for determining the extent of this problem and an appropriate course of action to resolve it.

(R. 55) Review status of CASS, ZIP+4, carrier route presort and five-digit route presort - PQ4/89.

To assure the accuracy of customer applied five-digit ZIP Codes and carrier route codes generated by the Carrier Route Information System (CRIS), the status of the Coding Accuracy Support System (CASS) will be reviewed as it relates to the accuracy of customer five-digit ZIP Codes and CRIS matching software. The Postal Service will measure and award certificates for mailers whose five-digit ZIP Code and CRIS matching software meet the CASS accuracy threshold. CASS for ZIP+4 match software was established in early 1988. We anticipate this service, as it expands, will lead to demonstrable system-wide improvement in the quality and accuracy of mailer applied five-digit, ZIP+4 and CRIS codes, thereby enhancing readability.

Pricing

(R.105) (Revised) Recommend rate and classification changes to promote automation compatibility among presort mailers - PQ3/89.

The TPAC chairman requested this item be reassessed. This Rates & Classification action item has been reassessed and changed. Most of the current rate incentives are provided to mailers for presorting. These presort mailers have no incentive for making their mail automation compatible. More presort mailers would consider improving the automation compatibility of their mail if there were also incentives which did not require address file conversions.

(R.115) Conduct pre-barcode readability study and assess affect on pre-barcode discounts - PQ4/89.

As the Postal Service provides incentives to mailers to apply bar codes, an assessment of the readability of these bar codes on Postal Service BCSs must be examined. Mailer applied bar codes that are unreadable may result in expensive manual processing that could outweigh the automation savings of the readable mail. As a quality and cost savings measure, it is essential the pre-barcoding mailer earn the pre-barcode discount by providing automation compatible mail that is correctly addressed.

Since discounted pre-barcoded volume is so sparse, this study has been delayed. A reassessment will be made during PQ3/89, to determine whether there is sufficient bulk pre-barcoded volume to make this study worthwhile. If so, the study will be conducted during PQ4/89.

(R.120) Recommend to SMC if rate and classification filings to support the corporate automation goal are possible - PQ2/89. SMC ITEM

Final recommendations will be presented to the SMC on the following issues:

- Make-up requirements

- Readability/non-readability rate structure
- Shape-based rates
- ZIP+4 pre-barcode discounts
- Additional services to induce automation compatible mail.

Action plans and timelines will be developed upon approval of recommendations.

These automation compatible rate proposals were studied as scheduled. They were formally presented by Rates and Classification to participating SMC members on March 24, 1989. The SMC gave Rates and Classification approval to further develop these proposals for the next general rate case.

Short-Term Improvement

(R.225) Develop a system to measure barcoded reply mail with ODIS-collected data - PQ1/89.

Activity involves development of a pilot test, piggybacked on the Domestic RPW System, for the measurement of Business and Courtesy Reply Mail. The pilot test will determine feasibility and serve as an aid to planning strategy for a more widespread data collection effort. Forms and instructions have been sent to the field for their feedback and designation of pilot sampling units. Due to Regular Mail Services Divisions' request for an additional data element (i.e., postmark date), forms and instructions are being modified for data collection rescheduled from A/P-8, FY89 to A/P-9, FY89. Results are expected by late July 1989. Quarter 1 comments identified Quarter 3 to begin measurement testing – not Quarter 2. Survey design is complete to test Reply Mail data capture through RPW as a better alternative than ODIS. Rates and Classification will begin pilot testing in 20 sampling units in each region in PQ3/89.

(R.230) Promote the use of existing Address Information Systems (AIS) products - PQ2/89.

The use of Operation MAIL (Mail Address Improvement Link) process, National Deliverability Index (NDI), National Change of Address (NCOA) process,

ZIP+4 Retrieval System and AIS products will help mailers identify and correct addressing deficiencies. Further use of these strategies and products will correctly standardize addresses and codes with ZIP+4 and bar codes.

The intent of this objective is to promote the use of AIS products through major mailer organizations, service bureaus, postal forums, trade shows, and business and trade magazines. We have been making presentations to major mailer organizations, such as Direct Mailers Association (DMA), Third Class Mailers Association (TCMA), Graphic Communication Association (GCA), Mailers Technical Advisory Committee (MTAC), etc., and service bureaus on how to improve quality of addresses by the use of AIS products. In the upcoming postal forums, we plan to promote the use of AIS products through already scheduled special sessions and one-on-one discussions with mailers in the technical center. The Marketing Department has been promoting the use of AIS products by advertising these in business and trade magazines. We plan to continue the promotion of these products. AIS product brochures have been produced and are being used for sales tools for the account representatives and in fulfillment of direct response print and direct mail promotions.

(R.235) Test concepts for technical support teams - PQ3/89.

Pilot the concepts recommended from R.210 both in a site with existing automation, as well as a site which is receiving automation for the first time. Developing the concepts will include bringing ARSs together and conducting interim evaluations of the pilot sites, with both postal participants and customers.

(R.240) Develop a system to measure accuracy and level of barcoding - PQ3/89.

The TPAC indicated there are four areas involved in measuring readability and at this point we have a system developed to measure only the first two. These are: the percentage of the sample which is readable, and the percentage encoded with a nine-digit bar code. Headquarters and the TPAC are responsible for developing means to measure two additional factors: the validity of the bar code which is applied, and whether the bar code reflects the finest depth-of-sort allowed

by the mail piece address. We will attempt to automate this process as much as possible.

A program to measure accuracy and level of barcoding was tested at six pilot sites and is being extended to 27 sites. A decision on the extent and frequency of testing will be made in April.

(R.245) Recommend concept(s) to organize and staff field technical support teams - PQ3/89.

Following the evaluation of pilot studies, make final recommendation for organization and staffing of technical support team.

The RPMGs suggested an additional or alternative approach to strengthen field technical support through contracting. Their suggestion was to examine the feasibility of contracting for outside technical support. They felt that the initial effort to contact a large number of customers would require outside technical assistance.

(R.250) Develop and implement Address Correction System (ACS) Nixie Feedback System - PQ4/89.

We plan to develop operational procedures allowing the ACS participants to obtain information concerning mail that is undeliverable for reasons other than a move. Currently, mail which cannot be delivered for reasons other than a move is handled by a carrier. The mail is then returned to the sender with the explanation for non-delivery. This initiative would automate this process for ACS participants. It would also provide a summary for management decisions.

Technology

(R.305) Define requirements and application of automated device or system to check address accuracy and readability (front-end quality) - PQ1/89.

Readability specifications are difficult to measure. A visual evaluation alone cannot determine accurately whether or not a mail piece is readable or correctly addressed. An automated device or system is needed to help identify incorrect addresses, bar codes, specifications that are out of tolerance, and estimate readability. This system could be the basis for an aggressive, renewed USPS emphasis on revenue protection and "front end" quality; that is, an attempt to reduce system errors and rejects before the mail is introduced into the automated system.

The TPAC endorsed this decision and the Rates and Classification Department plans to implement a requirements study in PQ1/89. To assess the effort to develop an automated device to measure readability, meetings were held with potential users and technical personnel. There are conflicting requirements between users of an automated readability device and the capabilities within the state-of-the-art of electronics today. Preliminary analysis has indicated that a practical device which would be useful to both acceptance and operations personnel may be difficult to design at this point in time. To more accurately assess the effort, a requirements study will be initiated under contract during PQ2/89. The results of that user and technical assessment study will be available at the end of PQ3/89.

A task was awarded to A.D. Little in PQ1/89 to assess the functionality and feasibility of such a system. Completion of contract is scheduled for June 1989.

(R.335) Initiate market study to determine optimum addressing characteristics for readability - PQ2/89.

Even some of our largest volume customers have up to 10 percent unreadable mail. Optimum automation compatible envelopes and addresses/bar codes could raise read rates consistently to almost 100 percent. We need to work with vendors to ensure that their main product lines supplied to our customers meet

automated processing requirements. The TPAC felt the "ideal" complete address would include a correct nine-digit ZIP and a correct bar code. Marketing and Engineering and Technical Support departments will work together to initiate this study.

Market research for bar codes in the address block is designed and a study is now underway to survey large and intermediate mailers on their interest to print address block bar codes. The study will be completed in PQ1/90.

(R.340) Fund development and testing of device to automate checking of address accuracy and readability - PQ4/89. SMC ITEM

This decision point is based on the results of a feasibility study for a front-end quality device (related to R.305).

Pending results of R.305, a contract has been awarded to A.D. Little in accordance with Item R.305 of the CAP to determine its application and technical feasibility. Their report is due in June 1989. If the program is determined to be viable, funding will proceed.

(R.345) Explore feasibility of standardizing existing OCR & BCS operating specifications - PQ2/89.

Phase I OCRs and BCSs were designed with off-the-shelf hardware, e.g., diode array scanners and flying spot scanners. As a result, each type of OCR and BCS has different operating specifications. One OCR cannot read addresses printed with red ink, while another cannot read green. Other examples of inconsistencies among automated equipment include varying read zones and the ability to handle standard machinable letters. These differences create credibility problems when trying to explain to customers that their mail can be read in one city but is nonreadable in others. We need to consider standardizing automated equipment operating specifications.

On-going activities to standardize the compatibility of bar code readers should be continued. Standardization of existing OCRs is a much more difficult

task. Major system trade-offs were designed into each system based upon the type of scanner. Standardization should be pursued only to the extent that performance is not degraded.

Standardization efforts underway include optical filters which allow all bar code readers to read in the same spectral range; standardization of a single bar code reader for all currently deployed BCSs; and modification of the Burroughs OCR verifier.

(R.350) Deploy system to standardize and manage walk sequence address lists - PQ2/89.

A plan is currently being developed for an automated service for arranging addresses on a customer mailing list in carrier delivery sequence to replace the current manual system. This automated process will provide mailers standardized addresses (addresses containing all correct data elements) and ZIP+4 Codes to ensure greater accuracy and compatibility with the recognition characteristics of automation mail processing equipment.

In the long term, 1992, this process can provide a mechanism for developing a national address register. This register would make available to all mailers, carrier delivery sequence data and accuracy address information which will clean up and standardize the mailing list addresses to enhance readability.

Computerized Labeling and Address Sequence Service (CLASS) is designed to provide delivery units with colored carrier case labels and automated service for arranging addresses on a customer mailing list in carrier delivery sequence. Currently CLASS is available to all field divisions to begin basic data collection and case label generation. Walk sequence output software will be released to all active sites in April 1989.

(R.355) Develop and implement third-class address change service - PQ2/89.

Procedures and methods will be developed to provide third-class mailers with a third-class Address Change Service. The benefits of such a system would be:

- Improved mailer address quality through elimination of undeliverable addresses from their files.
- Reduced Postal Service expenses by centralizing and automating the move information feedback.
- Reduced Undeliverable As Addressed (UAA) mail volumes handled by the Postal Service.
- Reduced mailer expenses through automating address correction information.

A process was implemented in January 1989 to provide Address Change Service (ACS) to participating third-class mailers. Prior to this, ACS was available only to second-class mailers. A third-class address change service was implemented January 31, 1989, and announced through Memo to Mailers, MTAC, and other trade press.

(R.360) Complete study to quantify non-read and error causes for each type of automated equipment - PQ3/89.

Over 40 percent of the mail processed on automation is rejected for various reasons. Even larger volumes of mail by-passes automated processing because the mail is not compatible. A detailed study that quantifies the non-read causes would enable us to develop strategies targeting specific problems. Such strategies would include working with customers to improve mail characteristics and working with machine manufacturers to improve performance. Knowing the causes of automation rejects would allow more efficient use of available resources.

Also included within this item is a step to change equipment run reports so they are easily read by non-technicians for the purpose of classifying mail piece rejection (PQ2/89). The Engineering and Technical Support Department reported

this is done on a continuing basis. There are also a number of ongoing quality control activities to identify mis-sorted mail piece and equipment as well as customer problems.

(R.365) Develop readability strategies based on non-read and error causes and targeted customer segments - PQ4/89.

Current readability strategies are primarily directed to the large mailers. These mailers are the ones that will most likely shift to customer barcoding and expanded presorting. The medium and small mailers are more likely to have their mail processed by USPS MLOCRs and are more difficult to reach and educate. Accordingly, they felt this is a joint Technology/Marketing issue in that solutions will vary between technology improvements and customer education.

(R.370) Deploy Part B multiline OCRs - PQ2/90. SMC ITEM

The next generation multiline OCR should be capable of reading at a higher rate than existing equipment due to advances in technology.

(R.375) Deploy local area based NCOA - PQ2/90.

A plan is being developed for a sub-system of National Change of Address (NCOA) licensees to standardize and update local mailing lists with customer move information. This would encourage the smaller mailers to improve the address hygiene of their mailing lists, resulting in improved readability for more mail. Approximately 60 percent of our customers move within the local area; therefore, many smaller mailers would be better served with an emphasis on updating and correcting their own mailing lists.

(R.380) Automate process to check readability and address accuracy at bulk mail acceptance units - PQ2/90. SMC ITEM

The responsibility for this decision point is assigned to the Engineering and Technical Support and Technical Resource Departments. It is contingent on items R.305 and R.340.

4.3.6 Summary

The Improve Addressing and Readability strategy emphasizes customer addressing standards and barcoding, automation compatible rate structures, continued development of technology, and technical support to customers to increase both the quantity and quality of bar codes. A measurement system has been implemented to track improvements in facility read rate goals and a system to track the quality of bar codes has been developed.

By increasing BCS accept rates and MLOCR nine-digit encode rates, we can reduce the volume of mail that must be encoded with Remote Video Encoding and increase our return on investment on our automated equipment. With aggressive, multi-functional field efforts supported by Headquarters strategies, immediate improvements in addressing and readability can be realized.

CHAPTER 4.4 PRICE STRATEGICALLY

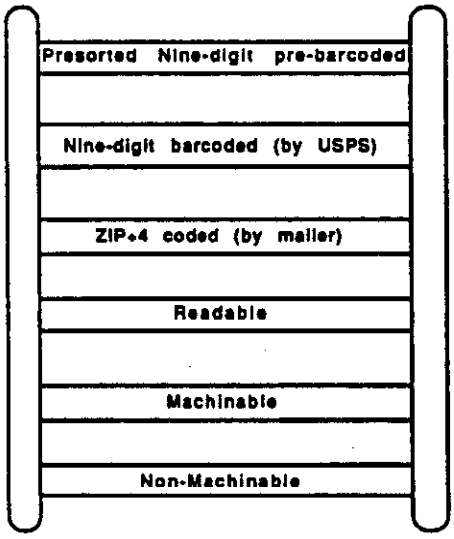
4.4.1 Background

The correct rate strategy can have a significant, positive impact on the Postal Service's ability to maximize savings through automation. Rate structures provide mailers incentives for performing pre-barcoding that would otherwise cost the Postal Service increased investment costs for equipment and distribution. The Postal Service will attempt to pursue pricing options that encourage the movement of mail up the "distribution ladder."

Currently our discount structure is overwhelmingly dominated by presort discounts. In fact, only 4 percent of our current discounts are automation-related. As our reliance on automation increases, the value of presorted, non-automation compatible mail will decrease. To effectively achieve a fully automated environment, our rate structure will have to be adjusted to reward those mailers who provide automation compatible mail, including presort.

The distribution ladder illustrated below depicts the relative efficiency, aside from presorting, of processing different types of mail. Since processing costs decrease as mail is moved up the ladder, future rate structures should be designed to encourage mailers to enter their volumes near the top of the ladder.

AUTOMATION DISTRIBUTION LADDER



The Postal Service influences, but does not control, the process that sets rates for postal products. Primary responsibility for the determination of postal rates is a function of the Postal Rate Commission (PRC), which bases recommendations on evidence presented by the Postal Service, mailers, mailer associations, and competitors in a quasi-judicial rate proceeding.

Recognizing that conditions are limited under which the Governors can vote to override the recommendations of the PRC, the Postal Service must adapt to the decisions of the PRC and the resulting reaction of customers.

The Postal Service's rate proposals and responses to intervenors' alternatives send important signals concerning the direction the Service is taking. Our last rate proposal emphasized our commitment to expanded reliance on automated handling of First-Class letter mail by requesting increased incentives for ZIP+4 coded mail and the addition of new rate categories for five-digit presorted and nine-digit pre-barcoded mail. The USPS also signaled the possibility of reduced presort incentives for First-Class Mail to reflect the closing gap between non-presort and presort mail processing costs as we automate mail handling.

Pricing strategically may offer the best long term opportunity to influence workloads. Rate structures can hold down capital spending for facilities and reduce labor costs. For example, pricing that influences mailers to deposit mail during non-peak hours can increase utilization of automation equipment. Adding more readable mail can shift volume from manual and mechanized operations to automation and reduce labor costs.

It should be noted that moving letters and flats "up the ladder" is the transition strategy. The long-term goal is the automation of virtually all letters and flats in 1995. In order to obtain this goal, the USPS identified strategic pricing issues.

The issues are divided into two major categories:

- Strategy Development Process
- Potential Incentives

Strategic Development Process

The first step is to evaluate the current rate-making process to determine how it supports our 1995 automation goal.

Potential Incentives and Services

In providing incentives for automation and moving toward the long-term goal, rate filings before FY95 will consider:

- Restructuring the incentives to encourage automation-related mailer worksharing.
- Moving flats towards automation.

Listed below are *potential* incentives based on the strategic directions that have been suggested:

- Price to give advantages to automation compatible mail.
- Provide readability incentives.
- Develop address hygiene standards and types of incentives for flat mail.
- Provide a separate rate for readable mail or require that incentive mail can be processed on automated equipment and meet readability requirements.
- Provide a rate that reflects a reduced cost of handling letters versus flats.
- Provide a rate to encourage mailers to submit their mail during off-peak hours.

4.4.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- The Rates & Classification Department developed an initial automation pricing plan in PQ4/88. The plan included the evaluation and analysis of various options and courses of action which may be available to encourage automation compatible mail. Under the guidance of an SMC sub-committee chaired by Mr. Coughlin, the following rate alternatives were examined by Rates and Classification:

  - Rate differences between letters and flats.

- Rate differences between readable and non-readable mail.
- ZIP+4 and bar coding rate incentives.
- Possibilities of pre-barcode incentives for flats.
- Possibility of time-of-entry/place-of-entry incentives for First-Class Mail.
- Whether any automation-related regulations can be justifiably relaxed.
- Additional services that could be provided for automated mail.

- On April 10, 1989, the Rates & Classification Department recommended automation-related rate proposals to the Senior Management Committee which should be pursued for the next general rate case. The SMC gave the Rates & Classification Department approval to further develop their proposals.

- **Shaped Based Rates** — Rates & Classification examined the potential for shape-based rates for both First-Class and third-class mail. Their cost studies confirm that there is a significant cost difference between handling letters and handling flats. Letter mail processing is mostly automated and mechanized while flat mail is mechanized and manual.

  The current First-Class Mail (FCM) structure includes a non-standard surcharge which in many respects approaches a shape-based structure. Higher rates are imposed on flats weighing less than one ounce, and other heavier flats are charged a higher rate through additional ounce rates. This penalty surcharge is our third highest source of revenue after FCM regular rate and Bulk Regular Rate. As a result, shape-based rates for FCM will not be pursued.

  While Bulk Third Class Mail (BTCM) has gained prominence, its rate structure has remained essentially unchanged for the past ten years. Today's BTCM rates are the same for letters and flats. BTCM is nearly an equal portion of letters and flats, and our rates are currently determined using averaging techniques that fail to effectively reflect the cost difference between flats and letters. That cost differential provides the basis to create an incentive for letter-size BTCM.

  Preliminary cost studies performed by Rates and Classification justify the need for shape-based rates. The cost difference for presorted bulk rate regular

mail indicate that the cost of the processing and delivery of letters varies from 3.2 to 5.3 cents less than the cost for flats.

To realize the cost savings, Rates & Classification has proposed a *draft* multi-tiered shape-based structure. The first tier receiving the largest discount would consist of automation compatible letters. A second tier would consist of other letters, and a final tier of flats. While this proposal is intended to induce current flat bulk mail customers to provide letter mail, it will also emphasis the readability of third class letters.

Since shape-based rates would effect many different mailers, especially carrier route presort, additional worksharing incentives to aid the carrier casing operation may also be necessary. A substantial amount of the current carrier route presort mail, which is 75 percent flats, is walk sequenced and/or drop shipped, thus shaped-based rates and an incentive for delivery related worksharing must be considered in tandem to avoid a rise in carrier route presort cost coverage.

Additional proposals consist of various pre-barcode discounts, distance based rates, and a shift of three-digit presort form the "Basic" rate category to the five-digit category.

- **Automation Compatible Discount** — To effectively achieve a fully automated environment, our rate structure will have to be adjusted to reward those mailers who provide automation compatible mail. This may mean the eventual disappearance of carrier route presorting due to an automated two-pass carrier system, eventual structuring of a flats walk sequence route, etc.

The alternative rates proposal also included establishing automation compatible discounts which will eventually replace presort as the predominant First-Class Mail discount. However, in the transitional movement towards a full-blown automation compatible rate structure, incentives have been proposed to provide a three-digit automation compatible presort discount. This will effectively link a majority of bulk First-Class Mail to automation compatibility, but will not significantly hurt current presort mailers.

- **ZIP+4 and Pre-Barcode Discounts** — Eventually mailer-applied ZIP+4 numeric codes will no longer be the key link between automation and rates. Modest price discounts are proposed for non-presort and three-digit ZIP+4 mail based according to the clearly capturable cost avoidance (mail flow benefits + capital cost benefits + improved indirect cost assessment). In achieving our long-term, ideal rate structure, presorted, pre-barcoded mail will have the greatest value to the Postal Service and thus should receive the highest discounts. Without customer applied bar codes, the Postal Service will realize increased costs through the need for additional MLOCRs and RVEs, as well as additional space. To the extent that pre-barcoding saves us space and equipment purchases, the savings ought to be reflected in the pre-barcode rate incentive.

- As part of the flats automation strategy, the Postal service is developing a flats bar code standard. Analysis is continuing concerning the flats pre-barcode discount which may lead to a rate incentive to coincide with the deployment of the flats BCS in late 1991. Without an incentive for mailers to pre-barcode flats, the Postal Service will be forced to buy OCRs which will increase our investments for equipment and space.

4.4.3 Measure Success of Price Strategically

A measure of this strategy is the effectiveness of rate incentives to alter the mix of mail from presort only to automation compatible mail (including presort). Future versions of the CAP will summarize the amount of incentive mail by class and subclass.

4.4.4 Program Area Committee Timeline

The Program Area Committee (PAC) timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.4.5. For a complete listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

Price Strategically

Indicates item is on SMC Timeline

Indicates item has been completed

	Fiscal Year 1988 Quarter 4	Fiscal Year 1989 Quarter 1	Quarter 2
Strategy Development Process	*(P.18)Initiate the development of Rates & Classification Action Plan to support automated distribution concepts. **Responsibility: RC** √ (P.20)Synchronize Operations and Marketing with Rates. ***Responsibility:DPMG*** √	*(P.30)Determine feasibility of establishing "Showcase" facilities equipped with latest in technology and management systems that demonstrate operational costs to support PRC filing. **Responsibility: S&P PAC** √	*(P.65)Review and approve rates classification action plan. ***Responsibility:Deputy/SMC*** √
Potential Incentives	(P.200)Initiate a study to examine the possibility of a barcode incentive for flats. **Responsibility: RC** √ (P.235)Examine ways general public can participate in automation. **Responsibility:RC&MK** √ (P.245)Initiate search for possible additional services that could be provided for automated mail. Seek input from other departments. **Responsibility: RC** √	(P.207)Analyze time of entry and place of entry incentives to mailers to increase automation of mail; workshare group assessment. **Responsibility: RC** √ (P.226)Develop Office of Rates positions regarding shape-based rates. Seek input from other departments. **Responsibility: RC** √ (P.228)SMC concurrence regarding shape-based rates. **Responsibility: RC** √ (P.242)Conduct MLOCR upgrade rate study, consolidate data and assess affect on ZIP+4 discounts. **Responsibility: RC** √ (P.247)Solicit input and comments from mailers concerning candidate additional automated related service and evaluate their feasibility. **Responsibility: RC** √ (P.254)Circulate proposal to relax 5-digit bar code and double window prohibitions for commingled pieces in pre-barcode mailings. **Responsibility: RC** √ (P.256)Establish working group to review regulations imposed on mailers. **Responsibility: RC** √ (P.258)Assess simplified three-digit presorting for automation compatible mail. **Responsibility: RC** √	(P.215)Analyze readable/nonreadable (dual) rate structures and assess a readability discount. **Responsibility: RC** √ *(P.250)Complete recommendations on possible rate and classification filings to support automation goal - Present to SMC. **Responsibility: S&P PAC** √

Timeline

Quarter 3	Quarter 4	Fiscal Year 1990	Fiscal Years 1991-1995
		*(P.70)Review, modify as necessary and implement strategic pricing plan.(PQ 1) **Responsibility: RC**	(P.70)Review, modify as necessary and implement strategic pricing plan. (PQ 3/91) **Responsibility: RC**
(P.240)Re-examine ZIP+4 and barcoding incentives. **Responsibility: RC**	(P.205)Estimate flats pre-barcoded related cost savings once operating concepts for flats are finalized; decide on discounts **Responsibility: RC & ES** (P.243)Conduct pre-barcode readability study and assess affect on pre-barcode letter discount. **Responsibility: RC** (P.260)Evaluate effect of selecting delivery distribution concept on pricing plan. **Responsibility: RC**	*(P.265)Complete ZIP+4 and pre-barcode cost studies.(PQ 1) **Responsibility: RC** *(P.270)Complete nationwide presort and shape-based cost studies.(PQ 1) **Responsibility: RC** (P.271)Complete special rate case studies to support USPS proposals to PRC. (PQ 1) **Responsibility: RC** (P.272)Define automation compatibility for rates and classification purposes. (PQ 1) **Responsibility: EDC** (P.274)Complete study of third-class mail characteristics (PQ 1) **Responsibility: RC** (P. 275)Evaluate three digit presort and determine how and when to allow three digit presorting for automation compatible mail. (PQ 1) **Responsibility: RC** *(P. 276)Finalize rate proposal for next rate case. - ongoing (PQ 2) **Responsibility: RC** (P.280)Evaluate effect of Remote Video Encoding on Price Strategy. (PQ 3) **Responsibility: RC**	(P. 273) Determine eligibility requirements for nonpresort automation compatible discount. (PQ 2/91) **Responsibility: RC** (P.277) Devise method of administering new third-class mail rate categories and determine eligibility requirements for new rate categories. (PQ2/91) **Responsibility: RC**

4.4.5 Decision Point Descriptions

Strategy Development Process

(P.30) Determine feasibility of establishing "Showcase" facilities equipped with latest in technology and management systems that demonstrate operational cost to support PRC filing - PQ1/89. SMC ITEM

The ability of the Postal Service to demonstrate the actual effects of rate recommendations will provide support for the next PRC filing. Perhaps "showcase" facilities should be in place allowing the PRC to see specific cost savings.

Evaluation of feasibility was conducted by the Marketing Department and presented to the SMC on February 27, 1989. Deployment has been delayed to further evaluate management issues regarding Full Automation Test Area concept.

(P.65) Review and approve rates classification action plan - PQ2/89. SMC ITEM

Review and approve rates action plan by SMC.

On April 10, 1989, the Rates & Classification Department recommended automation-related rate proposals to the Senior Management Committee which should be pursued for the next general rate case. The SMC gave the Rates & Classification Department approval to further develop their proposals.

(P.70) Review, modify as necessary, and implement strategic pricing plan - PQ1/90 and PQ3/91.

This includes the preparation, filing, and subsequent litigation of our finalized automation-related proposals before the PRC, as well as the eventual implementation of any approved changes.

Potential Incentives

(P.205) Estimate flats pre-barcoded related cost savings once operating concepts for flats are finalized; decide on discounts - PQ4/89.

A discount for pre-barcoding flats would have to rely on assessment of equipment availability, volume of readable mail, operational success rate, and other critical features.

Assuming a cost-justified discount appears supportable, the Rates and Classification Department will design an action plan to establish such pre-barcode discounts for flats.

Cost justified discounts do currently appear to be supportable. A discount proposal is expected to be included in the next general rate filing. A cost study will be conducted before that filing.

(P.215) Analyze readable/nonreadable (dual) rate structures and assess a readability discount - PQ2/89.

Cost differences between automation readable and nonreadable mail will be determined from cost studies done by the Rates and Classification Department to help assess the merit of a rate differential. Such a rate differential would provide an incentive for current non-readable mail to become automation compatible. However, a discount based on new savings from improved readability would be diluted because currently readable mail would also be entitled to the same discount.

There is some concern with providing discounts for First-Class letter mail. A readable/nonreadable rate difference would result in higher rates for the standard First-Class Mail from small businesses and households. In addition, collection mail may not be a feasible target for a readability discount.

With a rate difference for readable mail, there may be the creation of new mail consolidators that pick up from several mailers and consolidate the mail in sufficient volumes to achieve a readability discount.

Rates and Classification will perform this task with input from other departments. A recommendation and subsequent timeline will be developed in PQ2/89.

This analysis was conducted by Rates & Classification during PQ2/89. Recommendations which incorporate worthwhile inputs from other Departments were also developed during PQ2/89. These recommendations were presented to participating SMC members on March 24, 1989.

(P.240) Re-examine ZIP+4 and barcoding incentives - PQ3/89.

Rates and Classification will re-examine the assumptions and methodologies underlying the studies of cost savings resulting from ZIP+4 and pre-barcoding. The intention is to develop a cost methodology which fully measures these savings so maximum justifiable discounts can be proposed at the PRC. With greater discounts, more mailers will use ZIP+4 and pre-barcoding. The basis should be re-examined and, as much as possible, utilize actual operating results. However, since the issue is a recent one with the PRC, the S&P PAC believes the Postal Service should wait until the next rate case to take any action.

(P.243) Conduct pre-barcode readability study and assess affect on pre-barcode letter discounts - PQ4/89.

As the Postal Service provides incentives to mailers to apply bar codes, an assessment of the readability of these bar codes on Postal Service BCSs must be examined. Mailer applied bar codes that are unreadable may result in expensive manual processing that could outweigh the automation savings of the readable mail. As a quality and cost savings measure, it is essential that we verify the pre-barcoding mailer has earned the pre-barcode discount by providing automation compatible mail that is correctly prepared.

Since discounted pre-barcoded volume is so sparse, this study had been delayed. A reassessment will be made during PQ3/89, to determine whether there is sufficient bulk pre-barcoded volume to make this study worthwhile. If so, the study will be conducted during PQ4/89.

(P.250) Complete recommendations on possible rate and classification filing to support automation goal. Present to SMC - PQ2/89.

Recommendations on rate and classification filings to support the automation goal was prepared by the Office of Rates and was presented to the DPMG's Pricing Strategy Group on March 24, 1989, and to the SMC on April 10, 1989. The SMC give the Rates and Classification Department approval to further develop their proposals.

(P.260) Evaluate effect of selecting delivery distribution concept on pricing plan - PQ4/89.

Currently all discounts are based on mail processing cost savings and fail to recognize any future delivery-related cost savings which might occur. If such savings are supportable, they should be reflected in our rates and need to be presented to the PRC. Such savings would enhance our automation-related pricing incentives while also possibly reducing our requested revenue requirement.

(P.265) Complete ZIP+4 and pre-barcode cost studies - PQ1/90. SMC ITEM

These studies will examine the effectiveness of mailer-applied ZIP+4 and pre-barcoding within the automation plans of the Postal Service. They will address potential changes to the incentives to further realize the cost savings from ZIP+4 and pre-barcoding and to increase automation compatibility.

(P.270) Complete nationwide presort and shape-based cost studies - PQ1/90. SMC ITEM

Presort cost studies will be needed for the next general rate case. Shape-based studies will be conducted if approved by the SMC.

(P.271) Complete special rate case studies to support USPS proposals to PRC - PQ 1/90.

Special cost studies will be performed on both First- and third-class mail to determine mail flow comparisons between mail categories. The studies will analyze capital

needs and space requirements, as well as various indirect costs. Additionally, readability, automation coverage, machine thruputs, and depth of code will also be looked at.

(P.272) Define "automation compatibility" for rates and classification purposes - PQ1/90.

The cost of processing non-machinable mail versus machinable mail must be known to effectively determine an optimal price. To effectively reflect cost savings in our rate structure, it is essential that we determine what mail is read on the OCRs and BCSs. Thus, the characteristics of the machine-read mail piece is essential.

(P.273) Determine eligibility requirements for nonpresort automation compatible discount - PQ2/91.

(P.274) Complete study of current third-class mail characteristics - PQ1/90.

(P.275) Evaluate three-digit presort and determine how and when to allow three-digit presorting for automation compatible mail - PQ1/90.

In our efforts to induce an automation compatible mail stream, there will be a de-emphasis in presorted mail.

(P.276) Finalize rate proposal for next rate case - PQ2/90. SMC ITEM

This is an ongoing effort, but preparation and support must be prepared as early as 1990.

(P.277) Devise method of administering new third-class mail rate categories and determine eligibility requirements for new rate categories - PQ1/91.

(P.280) Evaluate effect of Remote Video Encoding (RVE) on Price Strategy - PQ3/90.

Video encoding involves manual intervention and should be considered as an alternative for manual processing. The success of readable/nonreadable rates may, in turn,

effect the need for encoding equipment. With the implementation of RVE, the Postal Service must monitor how its processing costs are altered and determine the necessary pricing changes.

4.4.6 Summary

To effectively maximize savings from automation, it is necessary that the Postal Service pursue a rate strategy which will induce mailers to provide automation compatible mail. The current Postal Service rate structure does not recognize the value of automation compatible mail and instead favors presort mail.

A rates recommendation was presented to the SMC by the Rates and Classification Department on April 10, 1989, and they have been given approval to further develop their proposal. Because the value of presort mail erodes as we automate, included in the Rates and Classification proposal is the eventual shift from presort mail to automation compatible mail as the predominant First-Class Mail discount. Additionally, due to our automated environment, the proposed rate structure may do away with all carrier route presort discounts while providing pre-barcoded mail the lowest rate available.

CHAPTER 4.5 STRENGTHEN SYSTEM INTEGRITY/QUALITY

4.5.1 Background

In our current processing system, employees detect and redirect distribution errors before mail is delivered to the customer. As we move to increased customer worksharing and automated mail processing, the employees will have fewer opportunities to review mail prior to its delivery. This will require modification of current quality assurance procedures to ensure that the first person to detect errors *is not* the customer. In particular, as automation-related mailing requirements become more technical, such as pre-barcoding, we must have sufficient internal controls to monitor the quality of the mail from our customers.

The Inspection Service has recommended that the Postal Service strengthen its commitment to quality, both in the organization and with worksharing customers. This dual commitment is also critical to the success of an automated processing environment.

In the August 1987 Inspection Service's report on Postal Service quality, it was reported:

- "Reworks" cost the Postal Service $275 million a year
- 17 percent of customer complaints concern the quality of mail handling. Typical quality-related issues center on late delivery, misdelivery, nonreceipt, and change of address problems
- Postal Service quality assurance efforts are not keeping pace with leading corporations

The major requirements for achieving automation quality are:

- Quality to the Customer: Modify systems to ensure that all mail is delivered to the correct customer. Satisfy additional customer expectations as quality standards are established to balance market requirements and costs.

- Quality of Delivery: Provide systems to improve accuracy and depth of record in distributing mail to delivery units.

- Quality of Distribution: Provide effective and affordable systems to find and correct systematic problems, to promptly redirect any improperly coded mail, and to track mail flow accuracy.

- Quality of Mail Base: Provide effective and affordable systems to increase mailer conformance with requirements on incentive mail and encourage the preparation of more readable mail.

Standards that reflect market requirements and costs are addressed in the *Price Strategically, Optimize Customer Participation,* and *Improve Addressing* and Readability strategies. This section deals with quality issues identified as automation produced and directly affecting the accomplishment of the corporate quality policy on automation.

4.5.2 Summary of Strategy Progress

Since PQ 4/88 the following progress has been made:

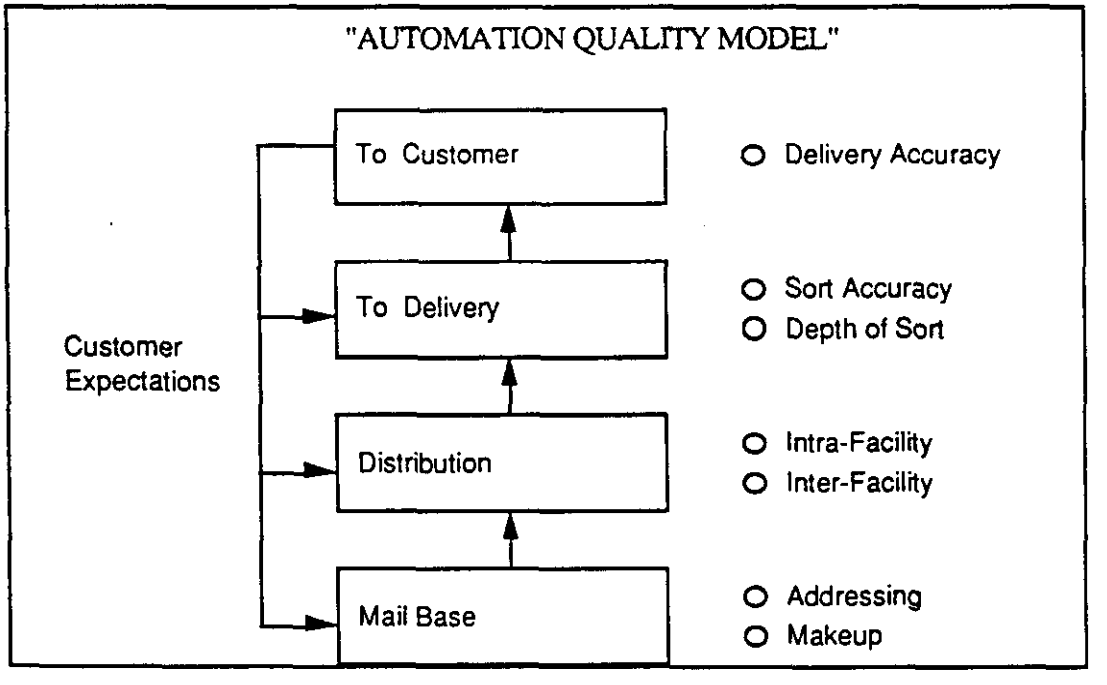
- The Corporate Policy Statement was agreed upon for Strengthen System Integrity/Quality during PQ2/89. The Corporate Policy statement on quality is: "To contribute to improving the value of service, quality levels in automation must ensure accurate and reliable delivery of automated mail. Mail must be delivered to the correct customer only."

- The timeline decision points were rewritten to focus more closely on this policy.

In previous editions, the Corporate Automation Plan contained four closely related activities, one under readability and three under quality, aimed at improving the accuracy of automated mail flows. The following activities were incorporated into a new Automation Quality Model:

- R.240 – Develop system to measure accuracy and level of barcoding.
- Q.10 – Examine internal and external systems to determine staff requirements for 99 percent accuracy; staff accordingly.
- Q.20 – Determine functional and operational quality goals (annual).
- Q.50 – Design jobs with quality assurance content and high grade levels vs. simple jobs which have no quality assurance content and low grade levels.

The Automation Quality Model was an outgrowth of inter-departmental discussions focused on these activities. The Model of the Automation Quality shown below has been adapted to visualize elements of the Strengthen System Integrity/Quality strategy.



The model depicts elements of mail handling that must be targeted to produce products that satisfy customer expectations. Paralleling this model, the Corporate Policy Statement has been drafted with activities listed in the timeline for each of the four elements in the Automation Quality Model.

Programs to improve and profit from readability fit within the overall Automation Quality Model so that the same measurement systems can serve both the overall quality objectives and the specific needs of readability improvement. In

this sense, a portion of the readability and quality programs have been merged. The Delivery, Distribution and Transportation Department defined an automation readable mail piece as having four characteristics. It must be:

- Readable/Legible
- Barcoded to 9 digits
- Accurate
- Finest Depth of Code

The line up of the quality objectives, readability components, and measurement systems are shown below:

Quality Objectives	Readability Components	Measurement Systems
To Delivery	Finest Depth Accurate	Depth of Code (DCMP) Delivery Unit Secondary Quality (DUSQ)
Distribution	Accurate	Managed Mail Analysis Test (MMAT), Systems Quality Sort (SQS)
Mail Base	Readable Barcoded Used	Letter Mail Readability Index (LMRI) Letter Mail Readability Index (LMRI) MLOCR Encode

4.5.3 Measure Success of Strengthen System Integrity/Quality

There are currently six measurement systems in place for automation quality. They are:

- LMRI - Letter Mail Readability Index
- DCMP - Depth of Code Measurement Program
- DUSQ - Delivery Unit Sort Quality
- MLOCR Encode Report
- Distribution Quality (i.e., SQS)
- MMAT - Managed Mail Analysis Test

An enhancement to the service measurement systems will eventually track the delivery performance of barcoded mail separately from non-barcoded mail.

4.5.4 Program Area Committee Timeline

The Program Area Committee timeline decision points are revised and were renumbered (except Q.5) to avoid confusion with the earlier timeline numbers. Each item is current with the development of Q.5, a corporate policy statement on quality for automation.

The PAC timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.5.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

* Indicates item is on SMC Timeline

√ Indicates item has been completed

Strengthen System Time

	Fiscal Year 1989 Quarter 2	Quarter 3	Quarter 4
Policy	*(Q.5)Develop corporate policy statement on quality for automation. **Responsibility: ES** √	(Q.55) Strengthen the quality control function for automation by selecting national quality control steering committee recommendations for priority implementation. **Responsibility: OP**	(Q.60)Communicate corporate policy on Quality for automation & develop a wide understanding of the required supporting activities. **Responsibility: OP**
Quality to Customer Objective			(Q.140)Add improperly forwarded and return-to-sender "loop" mail to the delivery unit secondary quality (DUSQ) visibility and corrective feedback system **Responsibility: OP**
Quality To Delivery Objective			(Q.150) Improve depth of sort provided to carriers by implementing the depth of record measurement and improvement system. **Responsibility: OP**
Quality To Distribution Objective		(Q.160)Ensure visibility of key intra-facility operations by selecting current distribution quality tests for FY-90 emphasis. **Responsibility: OP**	*(Q. 165) Evaluate feasibility of early video ID tag retrofit on OCR, BCS and F/C to promptly redirect improperly coded mail. Compare to other alternatives **Responsibility: ES** (Q. 170)Evaluate application methods and effectiveness of marking automation mail with a MLOCR machine number to diagnose coding problems. **Responsibility: ES**
Mail Base Quality Objective		*(Q.220)Develop plan to improve make-up quality in incentive mail by modifying BMAU/DMU tasks, implementing quality control checks, or other alternatives. **Responsibility: RC/MK**	(Q.225)Support 9-digit barcode verification at acceptance units and mailer plants by pilot testing the acceptance unit verification system (Postnet reader with national directory on CD-ROM). **Responsibility: ES**

Integrity/Quality line

Fiscal Year 1990 Quarter 1	PQ 2 - PQ 4	Fiscal Year 1991	Fiscal Years 1992-1995
*(Q. 145) Eliminate misdelivery of miscoded missorts in firm and box mail through an interim system of quality control checks and mandatory corrective action. Establish policy on unacceptable quality levels that require complete riffle of a firm or box section. Responsibility: OP			
(Q.155)Measure and improve accuracy of distribution to delivery unit by completing implementation of the DUSQ program. Responsibility: OP			
(Q. 175)Develop inter-facility visibility and corrective feedback system for missent and stale mail received by other facilities. **Responsibility: OP** (Q.180)Evaluate real time quality system in mail processsing, demonstrated as part of pilot test of the real time production management system(RPMS). **Responsibility: OP**			
(Q.230)Ensure emphasis on mailer preparation of more readable mail by including presort in the letter mail readability index mailbase and tracking against established goals. **Responsibility: OP**			

4.5.5 Decision Point Descriptions

Policy

(Q.5) Develop corporate policy statement on quality for automation - PQ2/89. SMC ITEM

The Corporate Policy statement on quality is: "To contribute to improving the value of service, quality levels in automation must ensure accurate and reliable delivery of automated mail. Mail must be delivered to the correct customer only."

The major requirements for achieving automation quality are:

Quality to the Customer: Modify systems to ensure that all mail is delivered to the correct customer and to satisfy additional customer expectations as quality standards are established to balance market requirements and costs.

Quality to Delivery: Provide systems to improve accuracy and depth of record in distributing mail to delivery units.

Quality of Distribution: Provide effective and affordable systems to find and correct systematic problems, to promptly redirect any improperly coded mail, and to track mail flow accuracy.

Quality of Mail Base: Provide effective and affordable systems to increase mailer conformance with requirements on incentive mail and encourage the preparation of more readable mail.

(Q.55) Strengthen the quality control function for automation by selecting national quality control steering committee recommendations for priority implementation - PQ3/89.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

(Q.60) Communicate corporate policy on Quality for automation and develop a wide understanding of the required supporting activities - PQ4/89.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

Quality to Customer Objective

(Q.140) Add improperly forwarded and return-to-sender "loop" mail to the delivery unit secondary quality (DUSQ) visibility and corrective feedback system - PQ4/89.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

(Q.145) Eliminate misdelivery of miscoded missorts in firm and box mail through an interim system of quality control checks and mandatory corrective action. Establish policy on unacceptable quality levels that require complete riffle of a firm or box section - PQ 1/90. SMC ITEM

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

Quality to Delivery Objective

(Q.150) Improve Depth of sort provided to carriers by implementing the Depth of Record measurement and improvement system - PQ 4/89.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

(Q.155) Measure and improve accuracy of distribution to the delivery unit by completing implementation of the Delivery Unit Secondary Quality (DUSQ) program - PQ1/90.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

Quality to Distribution Objective

(Q.160) Ensure visibility of key intra-facility operations by selecting current distribution quality tests for FY90 emphasis - PQ3/89.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

(Q.165) Evaluate feasibility of early video ID tag retrofit on OCR, BCS and F/C to promptly redirect improperly coded mail. Compare to other alternatives - PQ4/89. SMC ITEM

The responsibility for this decision point is assigned to the Engineering and Technical Support Department.

(Q.170) Evaluate application methods and effectiveness of marking automation mail with a MLOCR machine number to diagnose coding problems - PQ 4/89.

The responsibility for this decision point is assigned to the Engineering and Technical Support Department.

(Q.175) Develop inter-facility visibility and corrective feedback system for missent and stale mail received by other facilities - PQ 1/90.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

(Q.180) Evaluate real time quality system in mail processing, demonstrated as part of pilot test of the real time production management system (RPMS) - PQ1/90.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

Mail Base Quality Objective

(Q.220) Develop plan to improve make-up quality in incentive mail by modifying BMAU/DMU tasks, implementing quality control checks, or other alternatives - PQ 3/89 SMC ITEM

The responsibility for this decision point is assigned to the Rates and Classification and Marketing departments.

(Q.225) Support nine-digit barcode verification at acceptance units and mailer plants by pilot testing the acceptance unit verification system (POSTNET reader with national Directory on CD-ROM) - PQ 4/89.

The responsibility for this decision point is assigned to the Engineering and Technical Support Department.

(Q.230) Ensure emphasis on mailer preparation of more readable mail by including presort in the letter mail readability index mailbase and tracking against established goals - PQ 1/90.

The responsibility for this decision point is assigned to the Operations Systems and Performance Department.

4.5.6 Summary

Automation presents unique quality problems. In our current processing system, employees bear the responsibility for detecting and redirecting errors before mail is delivered to the customer. The increasing volumes of mail being processed

on automation provide fewer opportunity for employees to review mail prior to its delivery. Postal employees must insulate the customer from delivery errors.

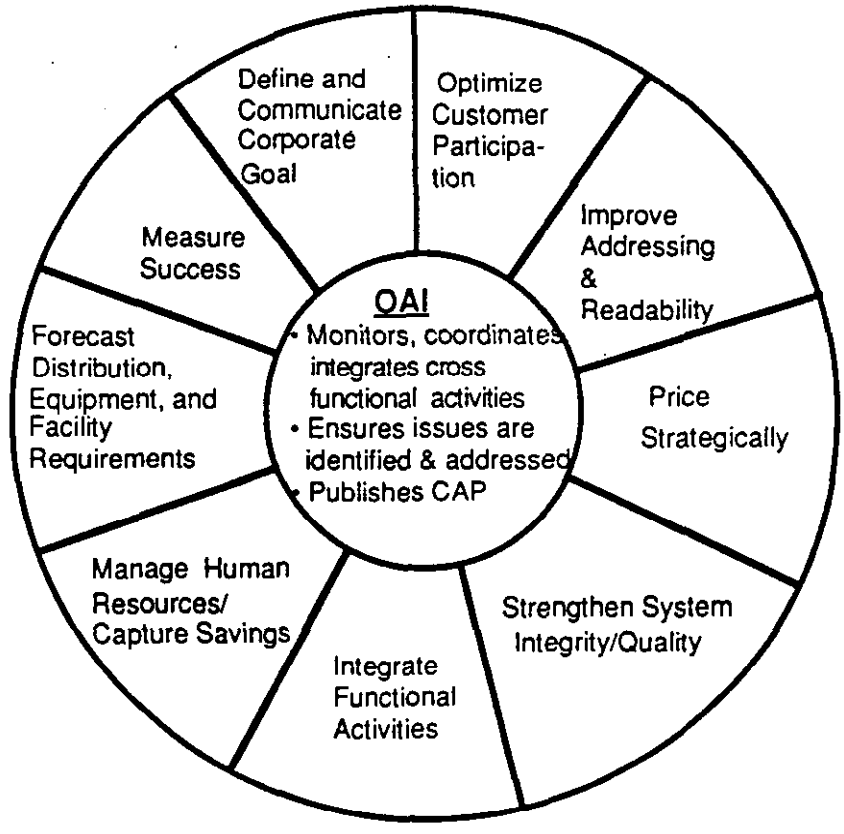
The decision points in this strategy outline the methods to be used to strengthen the source of quality assurance efforts aimed at our internal distribution system and the mail given to us by the customers. This important change in processing methodology requires a renewed emphasis for quality, particularly in the automated system, throughout the USPS.

CHAPTER 4.6 INTEGRATE FUNCTIONAL ACTIVITIES

4.6.1 Background

This strategy involves monitoring and coordinating Postal Service efforts and functions while accommodating the customer's automation capabilities and needs. This coordinated effort will contribute to optimum use of bar code technology and could substantially reduce combined costs to the USPS and our customers. In 1987, the Senior Management Committee (SMC) decided that active integration and planning was needed in the USPS to successfully manage corporate level automation activities. The SMC assigned this responsibility to the Office of Automation Integration (OAI). Integration of the Postal Service programs and functions, as well as coordination with its customers, is vital to successfully barcode all mail by the end of 1995; on a corporate, headquarters level, integration is substantially aided and guided by the Corporate Automation Plan.

The following graphic, OAI Functions, illustrates OAI's role in the CAP.



OAI is charged with the following responsibilities:

- Monitoring and coordinating the research, design, and implementation of all automation projects throughout the Postal Service.
- Ensuring that information on current and proposed automation projects is shared between functional areas.
- Helping to resolve cross functional issues in automation projects.
- Maintaining the corporate level Postal Service automation plan, updating the CAP quarterly and publishing the CAP semi-annually.
- Working primarily within the organization but utilizing outside contacts where necessary.
- Collecting, analyzing, and providing information to the SMC on the purpose and goals of all automation programs to ensure a uniform and consistent approach to automation.
- Identifying and ensuring that key issues such as those relating to customers, rates, classifications, human resources, labor relations, operations, and technology are coordinated and managed by the responsible departments.
- Serving as a primary source of corporate level information for automation throughout the Postal Service.

4.6.2 Summary of Strategy Progress

Each of the twelve decision points in this strategy due in PQ1/89 were completed on time. OAI had responsibility for ten, and the SMC for two (PAC briefings and review of CAP management). Since PQ4/88, the following progress has been made:

- The CAP is now supported by an automated system to assist in integrating the nine strategies. The Corporate Automation Plan Tracking and Inventory (CAPTAIN) System tracks decision points by strategy, program and organizational unit. It generates correspondence, reports and tracks automation-related documents.

- The use of focus groups continue to be used to enhance and integrate existing strategy timeline items and decision points. A focus group on "Improving Addressing and Readability" in Dallas, Texas, included 45 employees from the areas of address readability, address information systems, Operation MAIL (Mail

Address Improvement Link), Office of Maintenance Management, directory analysis, Marketing, Communications, and Operations. They examined planning assumptions, identified potential contributions to improve addressing and readability, and estimated improvement rates for readability. The participants formulated strategies on field operations/marketing processes and programs that must be accomplished to reach the estimated improvement levels in the 1989-1995 timeframe. These issues and activities were presented to the Technology Program Area Committee (TPAC) on February 28, 1989.

- A similar focus group on the Manage Human Resources/Capture Savings strategy was held to gain an integrated perspective from Operations, Finance/Management and Human Resources personnel regarding how to capture the savings from automation. They explored the questions of how will Human Resources capture these savings, what should be measured, and by what method(s) will they be measured. The participants were selected from a broad mix of divisional managers, directors of planning, field operation managers, division field directors, and MSC directors representing every Postal region and headquarters. The ideas generated in this meeting were presented to the Human Resources Program Area Committee (HR PAC) on March 20, 1989.

- Developed proposals for the overall measurement of the CAP as well as measurements for each strategy. The overall measurement system is described in Chapter 4.9, Measure Success. The individual strategy measurements are described in Sections 4.1.3 through 4.8.3.

- Successfully performed all previous objectives and will provide continuous monitoring to ensure direction, as well as making appropriate changes to the CAP based on changing internal and external conditions.

4.6.3 Measure Success of Integrate Functional Activities

Measuring the success of this strategy is defined through the successful integration and progress made among each of the other eight strategies. The CAPTAIN system intends to serve as a precise monitor of the progress that is being made on each decision point within each strategy. Though this is not a tool that directly measures the success at

meeting the Integrate Functional Activities strategy, it greatly assists the monitory work done within each strategy.

4.6.4 Program Area Committee Timeline

The Program Area Committee timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.6.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

Integrate Functional Activities Timeline

* Indicates item is on SMC Timeline

Indicates item has been completed

	Fiscal Year 1989 Quarter 1		Postal Quarter 2/89-Fiscal Year 1995
SMC Ongoing	*(I.26)Quarterly reports by PAC Chairmen to SMC on assigned strategies. **Responsibility:SMC** √	*(I.10)Review PAC role in managing CAP. **Responsibility:SMC** √	
OAI Ongoing	(I.5)Evaluate PAC decisions and determine costs, savings, and timelines for CAP strategies. **Responsibility:OAI** √ (I.20)Use rapid scenario decision support systems (i.e. META) to analyze SMC-and PAC- suggested scenarios for CAP. **Responsibility:OAI** √ *(I.27)OAI briefings for SMC on CAP status. **Responsibility:OAI** √ (I.28)Develop prototype Corporate Automation Plan Tracking and Inventory System (CAPTAIN) including Information Storage and Retrieval System. **Responsibility:OAI** √ (I.29)Develop a simple logic flow diagram showing inter-relationships between strategies and key decision points. **Responsibility:OAI** √ (I.30)Implement CAPTAIN and information storage and retrieval system. **Responsibility:OAI** √	(I.31)OAI support of PAC's implementing strategies. **Responsibility:OAI** √ (I.32)OAI involvement in Headquarters, field and customer automation meetings including Field Division General Managers meeting and Regional meeting of divisional functional directors. **Responsibility:OAI** √ (I.45)Prepare and present quarterly update of Corporate Automation Plan to SMC. **Responsibility:OAI** √ (I.50)Enhance CAP decision support systems such as META to include additional needs for long-range planning. (e.g., facility cost by distribution concept, etc.). **Responsibility:OAI** √	(I.60)Update, publish and distribute CAP. (starting PQ 2/89) **Responsibility:OAI** √ (I.61)Publish a public version of CAP. (starting PQ 2/89) **Responsibility: MK & OAI**

4.6.5 Decision Point Descriptions

OAI Ongoing

(I.60) Update, publish and distribute Corporate Automation Plan - PQ2/89.

OAI will incorporate quarterly updates into the CAP and publish and distribute on a semi-annual basis.

The Corporate Automation Plan is being updated quarterly and is published on a semi-annual basis. The next version of the CAP will be published in April 1989 and a quarterly update in July 1989.

(I.61) Publish a public version of CAP (starting PQ 2/89).

Publish a version of the CAP for a public, "non-postal" audience.

The Postal Service's advertising agency has submitted a draft of the public version of the plan. The draft is being circulated for review and revision. It should be completed by the end of PQ3/89.

4.6.6 Summary

Full integration will require that the CAP be clearly communicated, defined and accepted by our employees and customers. The goal of this plan is to involve all interested parties, both internal and external, to work together toward the mutually beneficial lower operating costs. OAI's mandate is to coordinate and integrate the functional activities of the CAP. As the focal point for CAP activities, OAI will continue to develop, enhance and use the increased technology, focus groups, committees and other available resources to ensure the success of the Corporate Automation goal.

CHAPTER 4.7 MANAGE HUMAN RESOURCES/CAPTURE SAVINGS

4.7.1 Background

This strategy addresses the impact of automation on the Postal Service work force. It describes the key plans and activities for managing human resources in order to capture the dollar savings made available by automation. Our objective in automation is to obtain the lowest *combined* mailer and Postal Service costs in preparing and delivering mail. This strategy focuses on four major issues:

- Surveying potential effect of automation
- Designing 1995 work force to complement automation
- Establishing labor negotiation objectives
- Monitoring the management of the work force

Automation is aimed primarily at controlling the price of service provided by reducing labor requirements to process and deliver letter and flat mail. The Postal Service currently employs approximately 800,000 people to handle the delivery of the mail. Projections estimate that without automation, over a million people will be needed by 1995 to deliver the mail. With an aggressive automation program, labor needs can be limited to approximately 900,000+ people in the year 1995.

4.7.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- Automation steering committees currently in place are being utilized to communicate the automation plan. Committees include representatives from management associations, union business agents, local executives, postmasters, and Operations and Human Resources managers.

- Assignment of an Automation Mail Flow Coordinator interim position has been delegated to field division general managers.

- Responsibility for quality has been determined to be an integral part of all distribution positions.

- Surveys to determine employee perception and information level on automation are being designed and a statement of work has been issued for fulfillment of the surveys.

- From the multi-functional meeting sponsored by Human Resources in Phoenix in March 1989, the following concerns expanded the focus on how to capture the automation savings:

  1. Revisit operation assumptions related to:

     - Cost of implementation, i.e., "burn-in" and learning curve.
     - Equipment performance, i.e., through-put, readability, downtime.
     - Budget impact on longer out-of-service periods.

  2. Provide an implementation plan (Playbook) that addresses complement, workload shifts, reassignments, excessing, skills assessment, and unassigned regulars and hiring.

  3. Produce a merit/reward system that orients line managers toward a long term automation savings goal.

  4. Provide a measurement and tracking system that establishes a baseline and isolates automation savings with a near real-time follow-up procedure.

  5. Prepare contract negotiation issues on flexibility, work standards, productivity incentives, and work rules.

  6. Develop a site specific communication and training process to update local management and craft employees on changing operations methods.

The Phoenix meeting highlighted and reinforced the need to pursue several of the action items currently in progress on the timeline.

4.7.3 Measure Success of Manage Human Resources/Capture Savings

The ability to measure this strategy is based on bottom line hours and dollars. We must first establish a fair and equitable base for all sites, develop a minimum savings goal for introduction of specific automated equipment, and monitor the steps taken to capture the savings.

4.7.4 Program Area Committee Timeline

The Program Area Committee (PAC) timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.7.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

* Indicates the item is on SMC Timeline

√ Indicates the item has been completed

Manage Human

	Fiscal Year 1988 Quarter 4	Fiscal Year 1989 Quarter 1	Quarter 2
Complement Planning Process			
Savings Accountability Mechanism			
Position Management	(H.105) Establish Steering Committees with management and craft with primary goal of communicating plan. (HQ, Region, Division, MSC, Management Association, business agents (e.g., Northeast Region), etc.) **Responsibility: LR** √	(H.110) Consider Automation Mail Flow Coordinator interim position. **Responsibility: ER** √ (H.115) Examine existing jobs to determine the feasibility of adding additional responsibility for quality and/or maintenance — and at what cost. **Responsibility: APMG, ER** √	(H.125) Explore workforce flexibility options for automated environment. **Responsibility: LR** (H.130)Devise and implement a system of training incentives and rewards for postmasters and AO managers with innovations in cost saving measures in support of automation. **Responsibility:ER**
Miscellaneous			(H.200) Design surveys to determine affects of automation on clerks/mailhandlers/carriers/ supervisors. **Responsibility: ER**
Labor Negotiations			

Resources Timeline

Quarter 3		Quarter 4	Fiscal Year 1990-95
*(H.1) HR/Operations/ Inspection Service/Controller to develop planning process for building standard format for use by field HR managers to ensure thoroughness and consistency in implementation and effective communication. Plan is to match employees to forecasted operational situation so projected savings can be calculated. Serves as a baseline for H.5 process. **Responsibility: LR**	(H.2) Inventory training available & examine adequacy for automation needs. Build design for supplemental training determined to be needed for both craft and management. **Responsibility: TD** (H.4) LR/DDD/Planning to develop "Model Work Force"/ "Right Mix" seven year out- look — what we will have and/or want to have in '95 workforce. **Responsibility: LR**		
(H.5) Charge Controller/ Inspection Service with responsibility of monitoring savings goals achieved against plan; test at pilot sites. **Responsibility: LR**	(H.10) Tie automation goals into divisions manger "score-cards" and PCES objectives. Date contingent on getting goals from Operations Support & Marketing. **Responsibility: ER**	(H.7) HR to notify and assist operations when automation plan is not being accom- plished. **Responsibility: LR**	
(H.300) Establish overall labor negotiations through 1996 (Include results of labor force survey). **Responsibility: LR**			*(H.303) Modify HR plan and labor negotiations objectives based on multiline, encoding, and distribution concepts. (PQ1/90) **Responsibility: LR** *(H.305) Modify HR plan and labor negotiations objectives based on new distribution concepts. (PQ FY95) **Responsibility: LR**

4.7.5 Decision Point Descriptions

Complement Planning Process

(H.1) HR/Operations/Inspection Service/Controller to develop planning process for building standard format for use by field HR managers to ensure thoroughness and consistency in implementation and effective communication. Plan is to match employees to forecast operational situation so projected savings can be calculated. Serves as a baseline for H.5 process - PQ3/89. SMC ITEM

These projected savings will serve as a baseline to monitor the achievement of their Plan by Operations, the Inspection Service, and the Controller, (see H.5).

Before savings can be measured, a baseline must be set and a goal of expected savings must be described. This calls for developing a process on which a standard automation implementation plan or format can be built. The resulting plan will serve as a required uniform tool for field managers. Human Resource managers will use the plan to ensure thoroughness and consistency in implementation. Field managers will be included in developing this plan, and a significant element of it will define, for mid-level managers, their role in managing human resources to best ensure the success of automation.

From the Phoenix meeting (reported earlier in the Summary of Progress), a follow-up meeting was held in late April to firm up the "Playbook" for implementation.

Implementation guidelines will be specific and include hard copy, multi-functional agreements on a complement plan which will drive a hiring plan and an excessing plan. Designed for divisional use, the Playbook will include advice and suggestions on how best to avoid major disruptions to the workforce. This effort calls for a meeting, not less than each accounting period, including all functions to identify service problems, operation inputs, budgetary demands, and contract compliance constraints. The savings will be identified by a timeline showing a goal of reducing bodies where automation projects a saving.

(H.2) Inventory training available and examine adequacy for automation needs. Build design for supplemental training determined to be needed for both craft and management - PQ3/89.

Automation related courses have been inventoried. This will likely be an on-going action item due to the changing equipment and operations methods. The Phoenix meeting pointed out a need to structure a local site specific updating process to assure that line managers and operators are all in agreement on mail flows, priorities, and objectives regarding distribution goals. The groups felt Operations could do the instructing but needed Human Resources assistance in scheduling, providing a learning environment, providing a feedback mechanism, and providing training improvements.

(H.4) LR/DDD/Planning to develop "Model Work Force/Right Mix" seven year outlook - what we will have and/or want to have in '95 work force - PQ3/89.

This timeline decision point is currently in progress. Integral to capturing savings will be the ability to forecast HR needs. The developments in negotiations, work force assignments, and technology will demand a model dynamic enough to reflect changing conditions in economic and employment situations. Human Resources and Operations are meeting to discuss the projected needs from a task assignment, flexibility, and anticipated duration of jobs as best known today.

Savings Accountability Mechanism

(H.5) Charge Controller/Inspection Service with responsibility of monitoring savings goals achieved against plan: test at pilot sites - PQ3/89.

As a result of reorganization, Operations may not be sufficiently staffed to track employee reductions or project savings over time. Field and regional managers recommend that Human Resources and the Controller should provide more support in tracking employee complement and related savings. Operations management can then focus on daily operational issues such as mail flows and work force utilization.

Completion of this action item is dependent upon the conclusions provided in H.1.

A joint Human Resources/Operations/Technology PAC is scheduled for May 15, 1989, and is expected to determine the method of capturing savings.

(H.7) HR to notify and assist operations when automation plan is not being accomplished - PQ4/89.

To ensure that we capture savings, the need remains to not only identify problem areas but to have a plan to assist in redirecting us to a position where savings can be captured. It also will provide an analytical tool to focus on where the deviation from the plan is occurring and what remedy is most apparent. A more detailed look at any problem area may be enhanced through the assistance from sites which are performing well and are meeting plan objectives. As a result of the Office of Automation Integration's meeting in Phoenix, a system is emerging (when H.1 and H.5 are updated and completed) whereby Human Resources will be involved with Operations and Controller in an agreed upon course to capture the savings. Notifying and assisting Operations will be an ongoing activity at least each accounting period.

(H.10) Tie automation goals into division manager "scorecards" and PCES objectives. Date contingent on getting goals from Operations Support and Marketing - PQ3/89.

Managers pay close attention to issues that affect their merit ratings. Management plans to measure the success of each division in meeting automation goals by including them on Postal Career Executive Service objectives and on the "scorecards" used by regions to rate division managers.

Letter Mail Readability Improvement has been added to division managers' scorecards, and as of this writing,the regional goals have either been met or they are promising.

Position Management

(H.110) Consider Automation Mail Flow Coordinator interim position - PQ1/89.

Mail flow in automated sites is becoming more complex and difficult to manage. In fact, many sites have designated unofficial automation mail flow coordinators to deal with the upcoming changes. When multiline sorters become fully operational, creating a mail flow coordinator position may be essential to ensure timely and efficient processing and dispatching of mail.

The Organizational Design Division has suspended drafting a job description for use in this function since most division managers have solved this potential problem without the need of an official position description.

(H.115) Examine existing jobs to determine the feasibility of adding additional responsibility of quality and/or maintenance – and at what cost - (PQ1/89).

Craft and management positions dealing with automated processing will be examined to determine whether adding responsibility for quality will result in an acceptable level of quality control.

No additional work is envisioned by the Employee Relations Department pending definition of "quality control" aspects of the job by Operations Group staff. At this point, the job description does not appear to be at issue. Attention is being focused on the training provided to newly assigned Mail Processors.

(H.125) Explore work force flexibility options for automated environment - PQ2/89.

Plans are proceeding to conduct focus group interviews with various employee groups prior to development of a nationwide survey. A proposal for the focus group interviews has been completed. A pilot focus group was conducted in Phoenix with a small group of clerk-craft employees on March 13, 1989. The questions to be asked during the formal focus groups have been finalized based on the pilot group.

To the extent that this task mandates that we "explore" and give "close examination" to the need for new part-time positions, the task has been completed. A comprehensive survey of all divisions relating to their need for additional flexibility has recently been completed (although it continues to be analyzed).

Realistically, however, the intent was to reach a conclusion on the need for a change in the 90/10 "when automation is complete". Operationally, we are not yet in a position to determine what the completion of automation might require. Indeed, even our game plan for 1990 negotiations cannot be formulated until at least PQ4. This task is closely tied to H.4 which is a projection of work force needs in 1995 and which was arbitrarily assigned a completion date of PQ3. A suggestion has been made to combine these tasks and move the target dates to PQ4/89, when we may have a more realistic view of where automation (including remote video encoding) will be taking us.

(H.130) [Revised] Devise and implement a system of training, incentives and rewards for Postmasters and AO managers with innovations in cost saving measures in support of automation - PQ2/89.

To fully capture the savings associated with automation, requires the support of all postmasters and work floor supervisors. A postmasters compensation (e.g., AO postmasters and work floor supervisors) depends in part on the workload for which the office is responsible. We are, in effect, expecting managers to institute changes in work flows which may result in a re-ranking of the office level via Workload Service Credit Evaluation.

Training and instruction must deal with keeping the postmasters fully informed of automation plans and implementation dates. Areas of savings must be fully explored and postmasters must be motivated to capture the requisite savings.

A system of rewards/incentives must be developed for those postmasters/ supervisors who make adjustments toward the automation effort much the same as other goal accomplishments in safety or productivity and budget.

The prospect of rewarding a desired activity (reducing a work force) while traditional methods are still in place (larger work force, usually equals a higher rating) is not an easy task.

Upper management structure will also need some equal incentives to provide the AO staff with consistent and reliable mail volumes sorted to the most productive level that supports the AO staffs efforts to capture the savings.

Plans to capture automation savings in an AO must have integrity and follow-through to prevent high overtime costs resulting from delayed hiring as well as preventing employee/union confidence erosion.

The Organizational Design Division is collecting data on the impacts of increased automation in associate office mail processing operations. Under existing criteria, if we reduce the number of employees involved in mail processing activities by introducing more automation, there could be a corresponding reduction in supervisory staffing levels and/or postmaster grades.

There are two broad scenarios which could surface relative to the associate offices. The first deals with the elimination of mail processing activities in an associate office due to the centralization being accomplished through the introduction of new processing centers. In those cases, the grade for some offices conceivably could be reduced due to a loss of the mail processing add-on credit. The second scenario is where the incoming and outgoing mail processing activity in an associate office remains but is automated. This action would have no impact on the postmaster's grade under the current workload service credit criteria. In this circumstance, there would be an impact on the number/grade levels of subordinate supervisors.

Miscellaneous

(H.200) Design surveys to determine effects of automation on clerks, mailhandlers, carriers, supervisors - PQ1/89.

We must be sensitive to the long-term effects automation has on our work force and how they adapt to the new processing structure. Several types of surveys

may be used on an ongoing basis to ascertain how it is being communicated to the work force and how it is impacting the work climate.

The surveys should be custom designed to identify specifically how automation is affecting the work force. They must: determine specific organizational needs to be addressed by the survey, work closely with the unions and management organizations, and identify specific problems during the introduction of automation. Alternate strategies will survey development through the use of focus groups with members of the targeted employee groups. Both strategies should lead to survey questions which could be directed at the areas identified. We will explore how other companies have managed the effect on the work force of the introduction of automation. Focus groups with employees will begin during PQ2/89.

Plans are proceeding to conduct focus group interviews with various employee groups at sites selected by levels of automation. In addition, employees will be questioned regarding their views on expectations and awareness, information sharing and sources, management of change, trust and willingness to adapt/receptivity to change. This information will be compiled into a report which will reflect Operations point of view as well as that of Human Resources. This information will refine the survey and eventually produce an individual divisional survey for the use of divisional managers.

Labor Negotiations

(H.300) Establish overall labor negotiations through 1996 (Include results of labor force survey) - PQ 3/89.

It may be necessary to form a task force to identify the future automation issues that need to be addressed during labor negotiations. The PAC endorsed this decision point and added that the ongoing analysis will incorporate results of the labor force survey from H.200. The task completion date is PQ3/89. This project involves Labor Relations negotiations planning which will not be completed until PQ4/89.

(H.303) Modify Human Resources plan and labor negotiations objectives based on multiline, encoding and new distribution concepts - PQ1/90.

Changing technology, labor climate indicators, and changing core duty assignment will necessitate revisiting this decision point. The acceleration in affordable technology will require an almost continuous dialogue to ensure the successful integration of any changes in automated mail processing and work force assignments and duties.

(H.305) Modify Human Resources plans and labor negotiations objectives based on new distribution concepts - PQ1/95.

The development of the Human Resources plan and labor negotiations objectives resulting from Phase IIB and implications of encoding will begin in PQ3/89. Strategic modifications of this plan will occur in PQ1/90 with a view toward new contract negotiations in PQ4/90. This action item will require modification as the USPS experiences the actual impact of advanced technology and its effect on labor negotiations. The success of the communications plan and how effectively the redistribution of labor is managed as the Corporate Automation Plan is implemented will affect modification requirements to the Human Resources plan and labor negotiation objectives. The target completion date is PQ4/95.

4.7.6 Summary

Managing Human Resources goes beyond capturing the dollar savings that result from the employment of fewer personnel. It includes keeping the current work force informed of automation plans and processes and identifying the types of skills and retraining necessary in an automated environment.

As with the other eight strategies, this area has a great impact on the success of the automation plan, and must be coordinated with all other functional areas to maximize savings from automation.

CHAPTER 4.8 FORECAST DISTRIBUTION, EQUIPMENT, AND FACILITY REQUIREMENTS

4.8.1 Background

4.8.1.1 History and Introduction

To meet the 1995 goal of an automated, barcoded mail stream, the Postal Service faces a complex set of decisions concerning distribution, equipment, and facilities. In the years leading to 1995, the USPS will need to deploy unprecedented quantities of new equipment while simultaneously altering its distribution network, facility plans, and retraining its work force. The fundamental decisions affecting the success or failure of this effort will be made in the next two years.

Distribution, equipment and facility decisions are complex and inter-related. When the Postal Service makes a decision in one area, it will influence other internal or customer options. The ideas that could lead to the highest financial return to the USPS and its customers are, for the most part, also those with the highest organizational and technological risk. The benefits, however, from a well executed and aggressive conversion to automation are, perhaps, the greatest of any existing cost saving opportunity available to the Postal Service.

Deciding which distribution concept is used to prepare mail for carrier delivery is a high priority. This decision will dictate future equipment requirements, as well as the facility requirements for that equipment. Conversely, older existing facilities will influence the type and size of equipment deployed. Whenever possible, the objective is to have the distribution concepts drive equipment requirements, which in turn drive, or are influenced by, facility requirements.

The close inter-relationships of these issues are further complicated by the influence of the other eight corporate strategies.

The amount and type of automation compatible mail generated by the Price Strategically and Optimize Customer Participation strategies could affect the distribution concept and *will certainly* affect the quantity of equipment required.

The Improve Addressing and Readability strategy will also directly affect the quantity of equipment and associated facility space requirements. A more readable mail stream requires less Remote Video Encoding (RVE). Similar direct affects could be shown with each of the corporate strategies in this Plan.

The costs of automation, while small in comparison to the potential gains, will be among the largest capital expenditures ever made for a single program in either the private or public sectors. Equipment investment alone, as measured in today's dollars, will require approximately $2.5+ billion by 1995.

Focus groups, the Operations Program Area Committee (OP PAC), representatives of the Delivery, Distribution & Transportation (DD&T) and Engineering and Technical Support (E&TS) departments examined these inter-relationships and constraints to develop this Distribution, Equipment and Facilities plan. Each of the three areas is outlined in Sections 4.8.1.2 through 4.8.1.4.

4.8.1.2 Distribution Overview

Distribution issues are divided in two major categories: network and delivery concepts.

The national distribution network deals with transporting mail between facilities. With the existing network, preferential mail is prepared for Area Distribution Centers (ADCs) and bulk business mail is prepared for State Distribution Centers (SDCs). The Postal Service has 87 ADCs containing 92 separations. Distribution network issues center around modifying the network to take advantage of the increased efficiency and flexibility of automated facilities and a barcoded mail stream to improve service and reduce operating costs.

The capability of the automation equipment to sort faster and cheaper and make more separations may require the Area Distribution Center (ADC) network to be more flexible and connect more facilities (e.g., an automated site to automated

site network). The quantity of required destinating facilities for merged mail could significantly expand or perhaps could differ for each originating facility. These ADC network changes could, in turn, lead to volume shifts on air and highway contracts. Similarly, the need to distribute equipment among many local facilities, such as associate offices and delivery units, to alleviate space constraints at larger facilities, will make new demands on the local transportation network timing and configuration.

The DD&T Department has been examining alternative strategies to expand the distribution network. Their progress is reported in Section 4.8.2 along with progress on all distribution, equipment, and facility issues.

The delivery distribution concept describes how automation is used to present mail to the carrier. To reach the 1995 goal, the Postal Service may use a combination of two or more delivery concepts with cross-over dates to correspond with customer and equipment capabilities. The alternatives include:

- Single-pass sort to carrier route level with some directs (ZIP+4).
- Two-pass sort to sequence sector segments by carrier route (ZIP+4).
- Two-pass sort to Carrier Walk Sequence (CWS)/Advanced Bar Code (ABC).

Existing types of automation equipment, customer worksharing, and ZIP+4 Codes make the first two alternatives feasible today. The Southern Region is currently using the two-pass method to prepare mail in sector segment sequence at every automated site.

The third alternative, carrier walk sequence, requires modification of the Multiline Optical Character Readers (MLOCRs), Bar Code Sorters (BCSs), and the customer's equipment to place the proposed ABC on the mail. ABC adds two additional digits in the bar code for that portion of the mail going to residential addresses. The existing ZIP Code for mail going to unique five digit ZIP Codes, firms, buildings, post office boxes, and cluster boxes is the ABC. These mail types account for approximately 50-60 percent of today's volume.

The first alternative provides *direct distribution* labor savings from mail processing operations. The mail is prepared for carrier routes by the more efficient automation operations instead of mechanized and manual operations.

The second alternative provides direct distribution labor savings from delivery casing operations and casing for post office boxes. The direct distribution labor savings for box and delivery comes from two areas, higher casing productivity for residential mail and no casing for that mail that already has the proposed ABC. Because the mail is sorted to sector segment sequence, it is presented to the carrier roughly ordered and confined to concentrated areas of the case. This increases casing productivity by *reducing* the time and motion required when mail is otherwise presented in random order. Productivity increases are higher for box section mail because its ZIP+4 barcode sequences the mail according to the post office box number.

The third alternative provides additional savings tp alternative number two. The Carrier Walk Sequence concept assumes that approximately 80 percent of the letter mail will be presented to the carrier as one bundle. The carrier would only have to case or merge 20 percent of his letter mail.

The Corporate Automation Plan (CAP), approved by the SMC in October 1988, bases its potential workyear and costs savings on the two-pass distribution to *sector segment* using the ZIP+4 Code. The Plan included the two-pass distribution method for both letters and flats. It also included revisiting the distribution concept decision as changes occur in the pricing and customer strategies or as innovations or advances in technology are made.

In April, an Automation Funnel Group formed by the APMG of the DD&T Department reported a need to accelerate the decision to go to a CWS distribution system for letters. As a result, CWS items on the letter timeline have been advanced. However, in the absence of a critical path planning concerning rates, marketing, technology or operations and lacking a definitive cross over date, the CAP must continue to utilize the sector segment distribution plan. Changes to the CAP will be reported through the appropriate PAC chairperson and ultimately presented to the SMC.

The Operations Support Group will conduct studies to determine potential savings from carrier walk sequencing. They will also test postal and customer equipment to determine the feasibility of applying and reading the ABC. Many technical, operational, and customer issues need resolution before national implementation. If the carrier walk sequence experiments prove successful, the USPS may be able to move beyond sector segment sortation earlier than the planned 1995 date.

In this edition of the CAP, the OAI has simulated an *interim* single pass distribution concept for automating flats. OAI modeled the single pass automation program to determine the lower end of the savings opportunity. Some people felt that a two-pass distribution system for flats might not be practical. In the mean time, the SMC has requested that the Technology Resource Department examine alternative flats strategies and ultimately propose the most favorable flats automation program to achieve the 1995 goal.

The distribution concept will have a substantial effect on our direct and indirect customers, the mailing supply industry, the public, and Congress. Customer worksharing induced by the Postal Service and the type of distribution activities the Postal Service performs internally must be coordinated.

Other Distribution

In this edition of the CAP, Engineering and Technical Support has added the Integrated Mail Handling System (IMHS). IMHS is a system addressing the use of bar codes on trays and containers in the First-Class Mail (FCM) stream. It also encompasses work being done on prototype equipment for bar code processing of parcels, parcel containers, pallets, and other conveyances. IMHS is not a particular piece of equipment and neither is it solely a distribution method. The CAP will include the IMHS as an addition to the strategy of the Forecast Distribution, Equipment, and Facility Requirements timeline.

4.8.1.3 Equipment Overview

The equipment strategy has been divided into two major sections. One section focuses on the automation of letter mail, and the other focuses on the automation of flat mail.

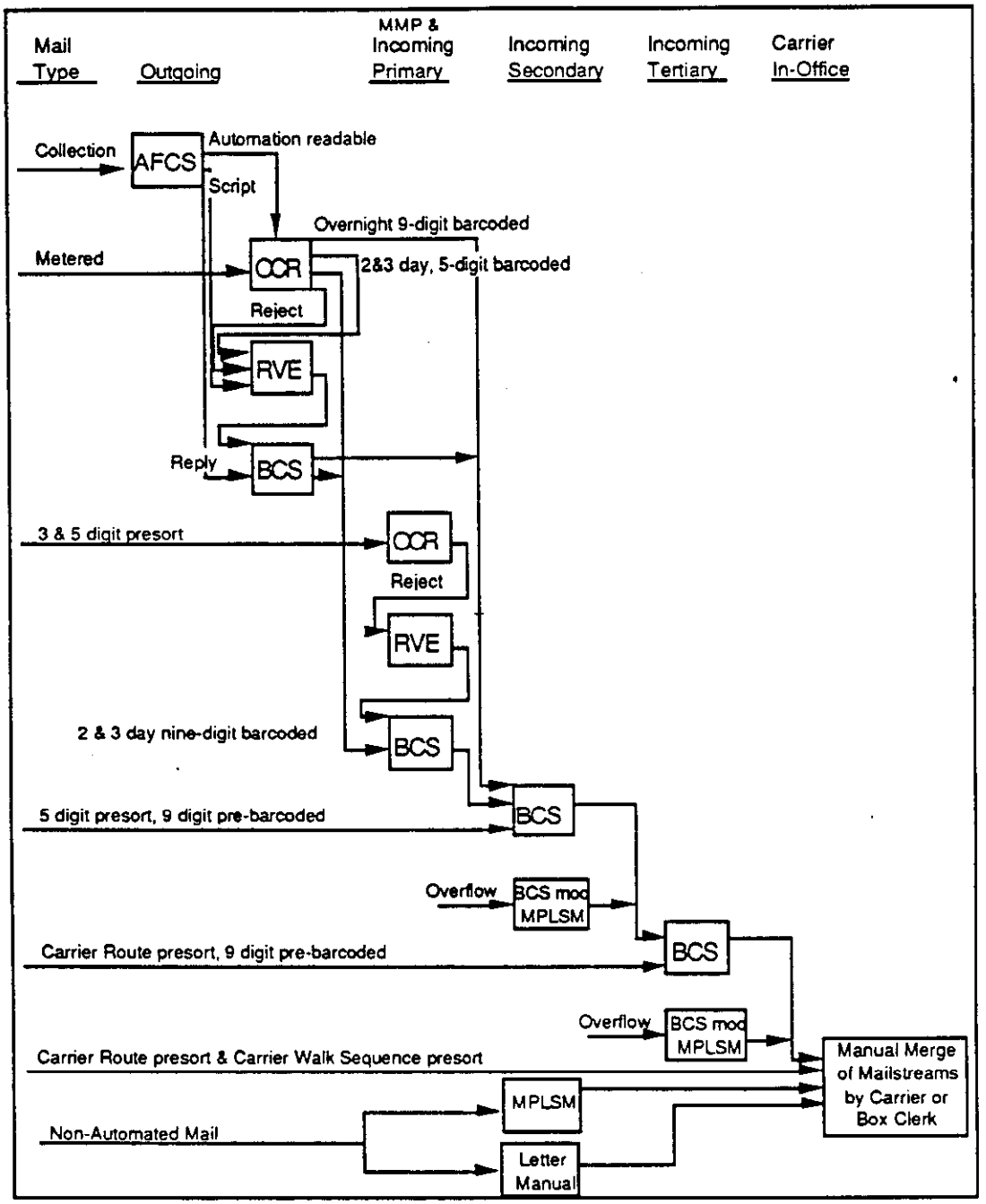
Letter Automation

The plan for automating letter mail requires coordinated use of the Advanced Facer Canceller System (AFCS), Multiline Optical Character Readers (MLOCRs); Single Line Optical Character Readers (SLOCRs); several types of Bar Code Sorters (BCSs); Remote Video Encoding (RVE); and, as an interim measure, a modified Multi-Position Letter Sorting Machine (MPLSM) that can read bar codes. The following diagram is a simplified concept schematic of how this equipment will likely be used to barcode and sort the flow of mail.

This schematic highlights the automated mail stream. The current system of MPLSMs and manual sortation will continue for automation rejects and non-machinable letter mail. Automation rejects will be encoded by RVE when that system is deployed.

The schematic shows an Incoming Tertiary operation. This can refer to the second pass of a "two-pass" system to sort mail to a sector segment level, in an operation that leads to sector segment sequenced level. The result of an Incoming Secondary sort may no longer be a carrier route level sort but rather an intermediate stage of a "two part" scheme. The combined Incoming Secondary and Tertiary operations may be performed in the General Mail Facility or at the delivery unit with the new Delivery BCS (see diagram). This flow would also apply if a CWS, ABC distribution concept is adopted.

The diagram also shows the confluence of multiple mail streams at the carriers' case. Current plans call for the carrier to continue to merge all internal and external mail streams. Study and development of automated methods for merging the various mail streams for the carrier are planned for the early 1990's.



The role of each type of equipment in the automated letter mail stream is explained in the following paragraphs.

The AFCS will remove non-OCR readable and pre-barcoded reply mail from the OCR mail stream. The reply mail is sent directly to a BCS for rapid handling and finalization. The AFCS ability to remove script mail from the OCR stream is important. This process is referred to as "enriching" the mail for the

MLOCR. Enriching should allow the current, limited number of MLOCRs to apply the maximum possible number of bar codes and reduce reject mail and the overall number of MLOCRs required. As MLOCRs improve their ability to interpret script mail, the type of enriching performed by the AFCS may also need to change.

As RVE is deployed, we will examine the benefits of retrofitting the AFCS to capture video images and apply RVE identifier codes to the non-OCR readable mail. The present RVE schedule makes its deployment concurrent with that of the AFCS. The timing of this decision is important and should occur prior to RVE deployment.

In 1995, the single line OCRs will likely be redeployed to small volume sites or perhaps removed entirely from service.

By 1995, we may have new types of BCSs in addition to current machines. Specifically, developmental work has begun for a smaller, Delivery BCS for deployment in 1991, which will also be equipped to operate as a single position letter sorting machine to process its own BCS rejects. As a contingency to the Delivery BCS, development efforts are also underway on a "double-decker" BCS which would also have a smaller footprint than conventional BCSs.

Mail processing BCSs will continue to be procured through 1990 or 1991. Additional BCSs, which would incorporate performance improvements and meet any additional remote video or carrier walk sequence requirements, are anticipated for deployment in the mid-1990's.

As a short-term contingency plan, the MPLSM will be retrofitted to act as a bar code sorter in 1989. This will help relieve the current BCS shortage until the BCS deployment schedule can satisfy the requirements.

Currently, approximately 35 to 50 percent of all mail fed to an MLOCR is rejected for one or more reasons and is therefore handled on mechanization equipment or manually. RVE is being developed to return MLOCR rejects to the automation stream through manual keying of address information and application of a bar code on this reject mail. RVE is not as fast as an MPLSM handling. It requires an additional automation handling on a modified BCS to actually apply the

bar code, and allows the mail piece to be handled on BCSs in downstream operations. At that point, rather than being restricted to mechanized or manual handlings at all operations, the mail piece can rejoin the automated stream. The efficiency of downstream automated handlings makes up for the initially lower productivity of the RVE processing and BCS rehandling of the mail piece.

Investment in MLOCR research offers an opportunity for the USPS to reduce the expense of applying bar codes. The Part B procurement will provide MLOCRs with larger directories. This increases the percentage of mail that can receive a complete, nine-digit bar code on its initial handling. Considering the continuing advances in electronics and computer science, it seems likely that our MLOCR research program will increase the nine-digit encode rate and improve the ability of MLOCRs to recognize characters or address blocks. Such improvements will reduce rehandlings and the quantity of required RVE stations and should yield an acceptable ROI on the investment in research activities.

By the end of 1992, it is expected that the USPS will need to have deployed *approximately*:

360	Advanced Facer Canceler Systems
250	Single Line Optical Character Readers
800	Multi-Line Optical Character Readers (including upgrades)
3,800	Bar Code Sorters of all types
15,000	Remote Video Encoding Stations

Of the 900 MPLSMs currently in use, approximately 1,750 consoles are planned to be retrofitted with a BCS capability. This provides the equivalent of an additional 250 BCSs.

The deployment of this new equipment will raise the issue of a redeployment policy in the early 1990's. A policy for redeploying older equipment to smaller facilities or the disposition of such equipment is needed. MPLSMs, Mark IIs, M-36s, and SLOCRs are the most likely equipment types to be affected.

The procurement and integration of all the equipment listed above will not, by itself, ensure meeting the 1995 goal of barcoding virtually all letter mail. The

success of the Price Strategically and Optimize Customer Participation strategies remain critical to meeting the goal. Customer participation in the pre-barcoding program is essential for avoiding capacity constraints on the AFCS/MLOCR/RVE system. Improving the machinability of the letter mail base is important. Approximately 10 percent of First-Class letter mail is non-automation compatible, with third-class letter mail non-automatable percentages running much higher. This non-automatable percentage must be lowered to five percent or below through close customer cooperation by 1995. If the mail is not automatable, the benefits of automation cannot be achieved.

Flats Automation

Automating flat mail has been a long-standing challenge facing the Postal Service. There have been many developmental efforts aimed at automating flats. Some of these efforts have shown the potential for deployment. The programs described below take the successful results from these developmental efforts and unite them into focused programs.

These programs are not without risk; they are developmental. They either modify previously deployed equipment or develop new pieces of equipment. The hardware that is produced as a result of these programs will require intensive testing to ensure that it meets the operational needs of the Postal Service.

These flat mail automation programs are directed at improving productivity, reading, printing, and applying bar codes on machinable flat mail by 1995.

The FSM 788 program is designed to improve the productivity of the present FSM 775. It is anticipated that this mechanization improvement modification will result in approximately 30 percent greater throughput and prepare the flat sorter for future additions that will transform it from mechanization to automation equipment. This modification also facilitates secondary sorting; the machine will be capable of running one 100 pocket sort scheme or two individual 50 pocket sort schemes.

The Flat Sorter Enhancement Program is designed to automate the induction process on the FSM 775 and to print and read a bar code representation of the ZIP

Code. It began five years ago and has resulted in promising technology for material handling and barcoding. The equipment developed by this program singulates flats, feeds them by a keyer for key entry of ZIP Code data, automatically inducts the flats into the flat sorter, prints a bar code representation of the ZIP Code in semi-visible fluorescent ink, and reads the bar code to verify its contents.

The PMG has placed a high priority on avoiding the need for a flats OCR. Since the Postal Service does not have OCR equipment for flat mail, the cost effectiveness of a flat mail bar code reader is highly dependent upon the success of a rates solution to have customers apply bar codes. Keying digits to apply a bar code has not yet been determined to be cost efficient.

Due to the nature of the industries producing the majority of flat mail, the USPS is expected to make a major advancement by creative inducements to pre-barcode this mail and by shape-based rates to encourage a conversion to automatable letter size where possible.

4.8.1.4 Facilities Overview

The Facilities and Mail Processing Departments analyzed facility requirements for automation. Independently, both departments found automation actually saves space when growth and replacement of current equipment are considered.

The Mail Processing Department performed an in-depth analysis of the effect of the CAP on the Westchester, New York Division between today and 1995. This analysis included volume, equipment, and operational changes, in addition to the effects on facility space requirements. The methodology developed at Westchester is being refined at four additional sites, one in each of the other four regions. The refined methodology will then be used in each of the 75 divisions and all automated sites. It may be necessary to alter the distribution and equipment concepts as well as the pricing, readability and worksharing strategies to efficiently accommodate the results of the Westchester type analysis of all automated sites.

The Facilities Department performed a survey and developed a model for assistance in planning facilities requirements and aiding in the development of the

requirements for new automated facilities. The model will be integrated with the findings from the Mail Processing Department's Westchester Study.

The greatest challenge for both departments remains in determining the best site utilization solution during the transition period from mechanization to automation. During implementation of the new automation equipment and distribution concepts, both the present and the new systems will operate simultaneously for periods of several months to several years. Space requirements will be the greatest, and therefore the most difficult to meet, during this period.

4.8.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- **Distribution** — Delivery distribution concepts tested at Baltimore and Lutherville were expanded to eight additional sites. The carrier walk sequence/ABC decision has been moved from PQ1/90 to PQ4/89. Strategic issues such as marketing, planning, and rate making are awaiting a conclusion.

  A regional task group has recommended an immediate expansion of the ADCs to 133 adding 41 automated ADCs (AADC). As the volume of barcoded mail expands, the AADCs may have a further phased expansion to approximately 200. This approach would be valid under any of the alternative delivery distribution concepts.

- Timeline activities have been added to include the Integrated Mail Handling System (IMHS) to the distribution area of the Forecast Distribution, Equipment, and Facility Requirement strategy. IMHS addresses barcoding of trays, containers, parcels, and parcel containers.

- **Equipment** — RVE concept studies have been concluded. Human Resources and Operations are continuing work on where the work will be done and by whom.

The Computerized Forwarding System (CFS) II is also being explored as an alternative means of applying bar codes with current equipment during available time.

The Part B MLOCR and BCS requirements of 346 MLOCRs and 421 BCSs with an option of up to 300 additional MLOCRs was approved in December 1988 by the Board of Governors.

Four companies have been awarded contracts to develop a test model Delivery BCS (DBCS). The DBCS will be smaller and incorporate a manual keying capability for turnaround mail and BCS rejects.

Advanced Facer Canceler (AFC) needs have been finalized and a contract awarded for production of 622 to begin delivery in 1990.

The SMC has requested that the TRD examine current Postal Service flats automation programs. TRD will:

- Review and document current developmental programs
- Define flats automation options
- Categorize flats volumes
- Evaluate alternative flats strategies
- Develop a new flats automation R&D program aimed at the 1995 CAP.

- **Facilities** — The Westchester model on space and the independent study by the Facilities Department have both shown an opportunity to save space with automation. The Westchester model is currently expanded to four additional sites. Space needs will be highest during the phase-in when manual, mechanized and automated processing are needed concurrently.

4.8.3 Measure Success of Forecast Distribution, Equipment, and Facility Requirements

Since the Distribution, Equipment and Facilities (DE&F) issue is highly inter-dependent, a danger exists in defining success for one at the expense of another. Therefore, in addition to assessing the activity of deployment and equipment inventory, the success of DE&F may also be measured in the output of these factors.

If the activities are correlated and managed well, the USPS should experience:

- An increased amount of barcoded mail;
- More barcoded mail processed via automation; and
- Attributable savings to processing via automation vs. alternatives.

DE&F is a complex strategy, and accordingly, success measures that give desirable local incentives are difficult to describe. The adequacy of the equipment and facility space to handle the current and future distribution concept is perhaps the most direct measurement available. The number of pieces of automated equipment deployed would serve to measure this. This inventory includes pieces deployed to date, pieces deployed during the current quarter, and pieces that are procured and scheduled for deployment at some time in the future. The machine deployment status for PQ2 is as follows:

Phase I OCRs deployed:	254
Phase II OCRs deployed:	406
Phase II OCRs retrofitted at start of PQ2:	271
Phase II OCRs retrofitted during PQ2:	56
Procured future retrofits:	79
Procured future OCR deployments:	0
Phase I BCSs deployed:	248
Phase II BCSs deployed at start of PQ2:	419
Phase II BCSs deployed during PQ2	44
Procured future BCS deployments:	217

The gross machine numbers do not indicate how effectively the Postal Service actually uses its equipment. From the perspective of meeting our automation goals, it is particularly useful to see how we are using bar code sorters in secondary operations. In fact, these numbers reveal that there is room for improvement in pursuing secondary schemes and maximizing the volume of letters run through them.

National model simulations indicate that approximately one-half of the zones that could be automated are, in fact, currently automated. The number that could be automated is estimated to be those zones where incoming processing is done at an office with BCSs, that have BCS processing capacity, and have more than a minimum volume of barcoded letters.

During the past quarter, few sites were running two-pass sector segment sorting on BCSs. Nationally, fewer than 200 zones are two-passes on a regular basis. Those that do, record their volumes in Mods Operation 879. Total recorded volume to Operation 879 during the quarter was 42,111,000. This Operation also includes tertiary sort volumes for certain offices in the Northeast, Eastern, Central and Western regions; therefore, this volume figure slightly overstates the two-pass volumes. Total handlings in PQ2, by region, were as follows:

Region	TPH on Mods OP 879 for PQ2 (thousands of pieces
NE	1,364
E	11,468
S	25,225
C	2,662
W	1,392
TOTAL	42,111

4.8.4 Program Area Committee Timeline

The Program Area Committee timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.8.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

ndicates the item is on SMC Timeline

Indicates the item has been completed

Distribution

	PQ 4/88 &PQ 1/89	Fiscal Year 1989 Quarter 2	Quarter 3
Letter Distribution Delivery Concepts	(D.30) Begin delivery distribution tests at selected sites, (i.e. Baltimore).(PQ 4/88) **Responsibility: ES** √ (D.12) Develop decision model with field participation. (PQ 1/89) √ **Responsibility: DS** (D.15) Approve study for carrier walk sequencing.(PQ 4/88) **Responsibility: ES/DS** √	(D.35) Expand delivery distribution tests to additional sites. **Responsibility: DS** √	(D.55) Test MLOCR with compressed national directory. **Responsibility: ES** (D.56) Establish criteria for RVE and BCS field simulation package. **Responsibility: ES**
Distribution Networks Concept	(D.10) Begin Area Distribution Center (ADC) analysis.(PQ 4/88) **Responsibility: MP** √	*(D.50) Select network concept. **Responsibility: MP** √	(D.52) Make decision regarding undefined small sites. **Responsibility: DT**
Container & Material Handling Distribution Concepts			(D.890) Complete development and evaluation of the IMHS FCM Concept for trays, containers, material handling and barcoding of these units for routing by the process control system. **Responsibility: ES**

Facilities

	Fiscal Year 1988 Quarter 4	Fiscal Year 1989 Quarter 1	Quarter 2
Facilities Policy		*(F.10) Develop methodology to determine facility impact of automation (Westchester Study). **Responsibility: MP** √	*(F.15) Develop model to determine impact of automation on facilities. **Responsibility: FD** √

Equipment

	Quarter 3	Quarter 4	Fiscal Year 1991
MLOCRs		(E.21) Begin Part B MLOCR deliveries. **Responsibility: ES**	
Other OCRs			
Mail Processing BCSs		(E.115) Deploy Mail Processing BCS **Responsibility: ES**	
Delivery BCSs	(E.109) Award production contract for Delivery BCS. **Responsibility: ES**		(E.125) Determine equipment requirements for next-generation BCS to perform CWS. (PQ1) **Responsibility: ES** (E.131) Deploy Delivery BCS. (PQ2) **Responsibility: ES**
Other BCSs			
Remote Video Encoding			(E.222) Begin RVE national deployment. (PQ2) **Responsibility: ES** (E.225) Evaluate relative merits of one-stage vs. two-stage encoding. (PQ3) **Responsibility: ES**
MPLSM			

Timeline

Quarter 3	Quarter 4	Fiscal Year 1990 Quarter 1	Quarter 2
	(E.18) Award Part B MLOCR contract. **Responsibility: ES** (E.19) Award contract to OCR vendor to integrate compressed ZIP+4 directory. **Responsibility: ES**		
	(E.5) Deploy CRIS Sort (Postal Soft) on Burroughs OCR. **Responsibility: ES**		(E.22) Finalize Phase I redeployment plans. **Responsibility: ES**
	(E.102) Field test new Delivery and Mail Processing BCSs. **Responsibility: ES**		(E.108) Begin Mail Processing BCS procurement process; award contract. **Responsibility: ES**
	(E.102) Field test new Delivery and Mail Processing BCSs. **Responsibility: ES**	(E.107) Determine Delivery BCS requirements. **Responsibility: ES**	
	(E.160) Deploy MPLSM barcode reader modifications. **Responsibility: ES** (E.170) ESC to continue devlpmt of double decker BCS. **Responsibility: ES**		
(E.202) Select operating concept for RVE. **Responsibility: SMC**	(E.204) Perform Cost/Benefit analysis on extent of remote video encoding. **Responsibility: ES** (E.205) Begin testing remote video encoding equipment. **Responsibility: ES**	(E.210) Select type and quantity of encoding equipment. **Responsibility: ES**	(E.215) Award RVE production unit contract. **Responsibility: ES**

Timeline

Quarter 3	Quarter 4	Fiscal Year 1990 Quarter 1	Quarter 2
	(E.515) Estimate flats pre-barcode related cost savings. **Responsibility: MK&ES**		
(E.600) FSM 5-digit bar code print/read test. **Responsibility: ES** (E.610)Begin field testing of model FSMs 788. **Responsibility: ES**			
	(E.800) TRD completes compressed ZIP+4 file development. **Responsibility: TR**		

Equipment

	Quarter 3	Quarter 4	Fiscal Year 1991
Advanced Facer Canceler	(E.420) Begin AFCS deliveries. **Responsibility: ES**		
Flats Automation			(E.520)Select flats encoding method. (PQ1) **Responsibility: OSP** (E.530) Procure desired FSM encoding system. (PQ3) **Responsibility: OSP**
Flats BCS (FSM Modification)			(E.620)Deploy FSM 788s. (PQ1) **Responsibility: ES** (E.630)Determine flats BCS requirements.(PQ3) **Responsibility: ES**
Flats OCR/BCS			(E.730) Complete demonstration system of flats OCR. (PQ3) **Responsibility: ES**
Research			
Budget Planning			

Timeline

Fiscal Year 1992	Fiscal Year 1993	Fiscal Year 1994	Fiscal Year 1995
*(E.540) Select strategy to merge CRP Flats with Automated Flats. (PQ1) **Responsibility: OSP**			
(E.650) Add barcode printer/applicators to FSM 788. (PQ4) **Responsibility: ES** (E.640)Add automatic induction station and barcod reader to FSM 788. (PQ3) **Responsibility: ES**			
	(E.740) Prepare DAR for flats OCR. (PQ2) **Responsibility: ES** (E.750) Award contract for flats OCR. (PQ3) **Responsibility: ES**	(E.760) Start deployment of flats OCR. (PQ1) **Responsibility: ES**	

4.8.5 Decision Point Descriptions

Distribution

(D.35) Expand delivery distribution tests to additional sites - PQ2/89.

Delivery distribution tests were expanded to eight additional sites in PQ2/89, with at least one site in each region. The eight sites are: Bristol, CN; Harrisburg, PA; Winston-Salem, NC; Jacksonville, FL; Carmel, IN; Schaumburg, IL; Raytown, MO; and Phoenix, AZ.

(D.40) Select distribution concept and type of bar code (ZIP+4 or ABC) for national implementation - PQ4/89. SMC ITEM

The CAP, approved by the SMC in October 1988, based its savings on full sector segment distribution with consideration of a carrier walk sequence distribution concept occurring in PQ4/90 (see D.62). Since that time, an innovative concept was proposed to have an Advanced Bar Code (ABC) that could be used to prepare the carriers' mail in delivery walk sequence. Due to the impact that a new bar code could have on worksharing incentives and a request from the SMC, the SAPMG for Marketing & Communications presented a timeline that called for the distribution concept decision to be made in October 1989.

During a distribution and equipment concept meeting in April, the APMG for the DD&T Department advanced the decision to July 1989.

(D.50) Select network concept - PQ2/89. SMC ITEM

This decision addresses the choice of the best distribution network to support the automation goals and will be based on the results of testing alternative models. The focus groups pointed out that a distribution concept, whether it is carrier walk sequence, sector segment, or carrier route with directs, would lead to the optimum number of separations needed for each type of equipment. These results would drive the network decision.

A regional task group was organized in August 1988 to define the optimum, distribution network for the 1995 automation environment. The task group has concluded that the number of outgoing separations (area distribution centers) can be significantly increased in the outgoing secondary bar code sorting operation at very little additional cost. The major advantages of such an expanded Automation Area Distribution Center (AADC) network should be to improve service, to increase destination depth of sort, and to relieve capacity constraints in large destination facilities.

The task group made a final presentation to the Regional Directors, Operations Support and the APMG, Distribution Delivery and Transportation Department on March 28, 1989. The new plans call for automated mail to flow through an expanded ADC network. The automation network will expand to 133 AADCs in the near future and will eventually be expanded to approximately 200 AADCs.

(D.52) Make decision regarding undefined small sites - PQ3/89.

There are presently 247 smaller sites which are not automated. Of these, 64 are presently scheduled to receive OCRs and three will become area mail processing (AMP) centers. Of the remaining 180 sites, about 1 percent will become AMPs; 45 percent will become automated; 54 percent are undefined at this time.

Options under consideration are:

- Relocation
- Purchase of OCRs
- Area Mail Processing
- Originating Concentration Site
- Destination Concentration Site

(D.55) Test MLOCR with compressed national directory - PQ3/89.

The Operations PAC recommended that an MLOCR with a compressed national directory and delivery stop data be tested. This is the beginning of background work needed to test and implement carrier walk sequencing.

The completed compressed ZIP+4 file development (see E.800) will allow EDC testing to be accomplished during PQ3/89.

(D.56) Establish criteria for RVE and BCS field simulation package - PQ3/89.

Decision Analysis Reports (DARs) form the basis of USPS equipment procurement decisions. In turn, the economic analysis of individual equipment DARs are based upon field simulations of the cost/benefit of the proposed systems. These simulations contain information concerning not only the equipment itself, but also the way in which the equipment will be used, the distribution concept the equipment will support, and the characteristics and volume of mail to process. Decisions regarding the criteria, concepts, and operational characteristics of the RVE system to be simulated are required to allow simulation to proceed in PQ4/90.

(D.57) Define options for expanding two-pass BCS processing window. - PQ4/89.

Many ideas have been proposed to change operating procedures, transportation networks, and service standards to expand the available run-time of BCSs in incoming secondary operations. Some of these ideas would change operations in the delivery units by having carriers report later or make greater use of relays thus allowing the BCSs to run longer in the morning. Altering the transportation networks for two and three day mail could allow outgoing secondary operations to be performed during tour 2. This would let BCS incoming operations begin earlier in the evening. Similarly, adjusting overnight service standards could lead to earlier critical entry times for incoming operations and again let BCS incoming secondary operations begin sooner.

Defining these options will involve efforts from many DD&T, E&TS, and OSP divisions. The result could be the need for fewer BCSs, commensurate lessening of facility space requirements, and perhaps, greater system reliability.

(D.58) Define equipment options and transition plan for carrier walk sequence - PQ4/89.

Carrier Walk Sequencing based upon the Advanced Bar Code may require different MLOCR, BCS, and encoding equipment than that required for carrier route or sector segment distribution. This activity will determine three or more equipment options for meeting CWS requirements. It will also explore the economic and operational viability of possible transition strategies from the carrier route sector segment equipment to the CWS equipment.

(D.59) Assess the impact of the ABC concept on customers' potential to workshare. - PQ4/89.

This decision is the same as C.337 in the Optimize Customer Participation strategy.

Marketing will conduct focus groups in July to assess the impact of the ABC concept on customer worksharing. The information gathered will be factored into the distribution concept decision (D.62).

(D.60) Perform carrier walk sequencing, carrier in-office test - PQ4/89.

This test, using manual cases to prepare mail in delivery stop sequence, will enable testing of carrier in-office procedures for perfectly sequenced mail. The ability of automation equipment to apply the advanced bar code and sort the resulting mail to carrier walk sequence order will be performed in the spring of 1990.

(D.62) Review delivery distribution concept (e.g., sector segment, carrier walk sequence) - PQ4/90. SMC ITEM

One year after the initial decision for the delivery distribution concept (D.40), the decision should be reviewed following testing of automated Carrier Walk Sequencing (D.60).

(D.63) Carrier walk sequencing - equipment test - PQ3/90.

As it is now understood, a test will be conducted using a modified MLOCR or CFS II station to apply an advanced bar code and a modified BCS to perform a two-pass incoming secondary to sort the mail into carrier walk sequence. This test should provide information concerning equipment performance, operating procedures, sort scheme engineering, directory requirements, and addressing characteristics needed for an ABC system.

(D.65) Develop carrier walk sequence equipment requirements - PQ1/91.

A decision is necessary whether to proceed with Carrier Walk Sequencing on a national basis. This decision will be contingent upon the testing results, as well as additional equipment requirements.

(D.68) Review delivery distribution concept (e.g., sector segment, carrier walk sequence) - PQ1/92.

The decision for the delivery distribution concept should be reviewed following the deployment of remote video encoding.

(D.70) Prepare/approve DAR for CWS equipment production - PQ2/92.

This decision point calls for preparation and approval of a Decision Analysis Report for production of Carrier Walk Sequencing equipment, including BCSs and consolidators.

(D.80) Begin production delivery - PQ2/93.

This decision point follows D.70 regarding production and delivery of new equipment for Carrier Walk Sequencing.

(D.890) Complete development and evaluation of the IMHS FCM Concept for trays, containers, material handling, and barcoding of these units for routing by the Process Control System - PQ 3/89.

This decision point is assigned to the Engineering & Technical Support Department.

(D.891) Complete procurement IMHS 2nd, 3rd, and 4th Class. Complete installation IMHS 2nd, 3rd, and 4th Class prototype equipment to test the concepts for handling palletized mail containers, trays, pallet boxes for parcels, and the process control system for routing by bar codes - PQ4/89.

This decision point is assigned to the Engineering & Technical Support Department.

(D.894) Award contact for IMHS FCM prototype test and evaluation - PQ4/89.

This decision point is assigned to the Engineering & Technical Support Department.

(D.901) Complete test and analysis IMHS 2nd, 3rd, and 4th Class prototype test - PQ1/90.

This decision point is assigned to the Engineering & Technical Support Department.

(D.902) Obtain Board approval for IMHS 2nd, 3rd, and 4th Class nationwide deployment - PQ2/90.

This decision point is assigned to the Engineering & Technical Support Department.

(D.903) Start IMHS 2-, 3-, & 4-C nationwide deployment. PQ3/90

This decision point is assigned to the Engineering & Technical Support Department.

(D.911) Complete installation of IMHS FCM prototype equipment - PQ1/91.

This decision point is assigned to the Engineering & Technical Support Department.

(D.912) Complete test and analysis IMHS FCM prototype test - PQ2/91.

This decision point is assigned to the Engineering & Technical Support Department.

(D.913) Obtain Board approval for IMHS FCM nationwide deployment - FY91.

This decision point is assigned to the Engineering & Technical Support Department.

(D.920) Start IMHS FCM nationwide deployment - FY92.

This decision point is assigned to the Engineering & Technical Support Department.

(D.950) Complete IMHS FCM and 2nd, 3rd, and 4th Class nationwide deployment.- FY95.

This decision point is assigned to the Engineering & Technical Support Department.

Equipment

MLOCRs

(E.15) Determine Part B MLOCR requirement - PQ1/89. SMC ITEM

Based on a review of the initial deployment of Part A MLOCRs, an evaluation of future deployment needs should be conducted. This decision ties closely to the distribution concept, which is a PQ4/89 decision point. We also need to consider the impacts of enriched facer/canceler equipment which would isolate OCR-readable mail. Remote Video Encoding also must be considered at this decision point.

Requirements for Part B MLOCR and bar code sorter needs in support of the multiline program were developed through the use of a computer simulation. The simulation was run on sample sites at the end of April 1988. The remaining sites conducted the appropriate analysis in June 1988. The model used 1992 mail volume projections. The results of the simulation included the use of enriched facer/canceler equipment and called for 346 MLOCRs and 421 BCSs. The Decision Analysis Report for this program was developed in the fall of 1988 and approved by the SMC in October 1988. Subsequently, the program was approved by the Board of Governors in December 1988. An option has been included in the MLOCR contract for up to 300 additional units.

(E.18) Award Part B MLOCR Contract - PQ4/89.

This Part B contract award will be based on requirements determined from field simulations. An option should be provided to allow for remote video encoding impacts. Contracts are scheduled to be awarded in PQ4/89.

(E.19) Award contract to OCR vendor to integrate compressed ZIP+4 directory - PQ4/89.

Following the development of the compressed directory by the Technology Resource Department (TRD) (E.800), the directory should be integrated with an OCR and testing started (D.55).

(E.21) Begin Part B deliveries - PQ4/90. SMC ITEM.

This activity previously noted that the delivery of OCRs tested at the end of FY88 will begin in PQ2/90. It has been impacted by procurement delay and rescheduled to PQ4/90.

(E.22) Finalize Phase I redeployment plans - PQ2/90.

This decision point reflects the final decisions on the relocation/use of Phase I OCRs.

Other OCRs

(E.5) Deploy CRIS Sort (Postal Soft) on Burroughs OCR - PQ489.

The study in Kansas City to evaluate use of Carrier Route Information System (CRIS) Sort on a Phase I Burroughs OCR will be completed in PQ4/88. The primary advantage of using CRIS Sort on Phase I OCRs is its easing of the critical need for BCSs since the optical character reading equipment (the entire range including single and multi-line OCRs and BCSs) would be capable of processing incoming secondary mail. The contract was awarded on February 1, 1989. The delivery of retrofit kits started February 27, 1989, and will be completed by the end of June for all Burroughs OCRs.

(E.16) Begin Phase I redeployment assessment - PQ1/89.

As the Postal Service deploys new equipment, older types of equipment may be removed or redeployed to make room for the new equipment. In some cases, new equipment precludes the need for the old equipment. The major equipment types affected initially will be the SLOCRs and LSMs.

The Operations PAC recommends that we begin to examine the best possible alternatives for relocation of Phase I OCRs. The timeline indicates that it will take five quarters to finalize redeployment plans, but the implementation schedule is pending.

Discussions concerning the disposition on Phase I OCR equipment are underway. A preliminary position paper has been circulated among the regions for evaluation. The ultimate decision on redeployment of Phase I OCRs is somewhat dependent on the development of a revised originating distribution concept and the network ramifications of deploying OCRs in small volume sites. A study team from the regions convened in January 1989 to address this and relating issues.

(E.22) Finalize Phase I redeployment plans - PQ2/90.

This decision point reflects the final decisions on the relocation/use of Phase I OCRs.

Mail Processing and Delivery BCSs

(E.102) Field test new Delivery and Mail Processing BCSs - PQ4/89.

In late summer and fall of 1989, modification test agreement (MTA) field testing will be performed on all competing new BCSs.

(E.107) Determine Delivery BCS requirements - PQ1/90. SMC ITEM.

The required number and type of Delivery BCSs will be based on Part B MLOCR tests, delivery automation test results, network modeling results, BCS test results, and preliminary video encoding results.

(E.108) Begin Mail Processing BCS procurement process; award contract - PQ2/90. SMC ITEM.

Award contract for the best performing machine which meets the requirements specified in E.107.

(E.109) Award production contract for Delivery BCS - PQ3/90.

Assuming the ESC tests in PQ1/90 are successful, the production contract for the Delivery BCSs will be awarded to one or more vendors. This task has been rescheduled from PQ2/90 to PQ3/90 due to procurement delays.

(E.115) Deploy Mail Processing BCS - PQ4/90. SMC ITEM.

Begin production deliveries of the improved BCS per contract awarded in PQ2/90.

(E.125) Determine equipment requirements for next-generation BCS to perform CWS - PQ1/91.

The next generation BCS contract award should be made based in part on requirements of Carrier Walk Sequencing (CWS). Those specific requirements should be known at this time.

(E.131) Deploy Delivery BCS - PQ2/91.

Begin deployment of production Delivery BCS per contract awarded in PQ2/90.

Other BCS

(E.160) Deploy MPLSM bar code reader modification - PQ4/89.

The USPS is aggressively acquiring BCSs to support the automation plan. However, for a period of about one year, the amount of barcoded mail will exceed the capacity of the BCS inventory. To cover that gap, this modification of the MPLSM will permit some consoles to be used as bar code sorters. A similar approach will be used for the single-position letter sorting machine (SPLSM). Requirements for the conversion kits are being coordinated through regional Operations Support. This due date is changed from PQ3/89 to PQ4/89 due to procurement delays.

(E.170) Engineering and Development Center (EDC) to continue development of double-decker BCS - PQ4/89.

This decision point recommends the evaluation of a double-decker (small footprint) BCS as a contingency measure for E.101 (the Delivery BCS).

Remote Video Encoding

(E.200) Develop remote video encoding operating concepts - PQ2/89.

Examine the possibilities of operating the encoding system by career postal employees or by contract to the private sector.

A joint Human Resources/Mail Processing work group has studied the various implications of performing the RVE function via contract or in-house personnel. The findings of this group were presented to the SAPMGs of Operations Support and Human Resources on December 14, 1988. This issue was discussed at the SMC meeting on March 16, 1989, and course of action has been established. A decision on the approach should be forthcoming. At that time, the RVE Field Advisory Group will begin developing an implementation plan to ensure that RVE facilities are properly prepared under either a contracting or in-house scenario.

(E.202) Select operating concept for remote video encoding - PQ3/89.

Review all issues of career employees versus contract labor operating the encoding system.

(E.204) Perform cost/benefit analysis on extent of video encoding - PQ4/89.

The Decision Analysis Report (DAR) will include the results of the RVE and BCS site simulation packages. The report will also include the impact of improved OCR readability and peak day volume.

The focus group had previously noted that improving readability "competes" with remote video encoding for a share of the same unreadable mail base. Although encoding will be necessary for a portion of the mail base, it is a process involving manual intervention and should not be considered as a complete substitute to improving readability.

(E.205) Begin testing of remote video encoding MTA - PQ4/89. SMC ITEM

Begin MTA for remote video encoding equipment. Based on the results of these tests, a development contract is awarded in PQ2/90 with national deployment beginning in PQ2/91.

(E.210) Select type and quantity of encoding equipment - PQ1/90. SMC ITEM

Based on the remote video encoding MTA and the DAR, the quantity and type of encoding equipment and BCSs will be determined.

(E.215) Award RVE production unit contracts - PQ2/90.

Having performed financial studies and field tests of the RVE system, a production contract will be awarded as appropriate.

(E.222) Begin RVE national deployment - PQ2/91. SMC ITEM.

Volume deployment of the RVE system will begin at this time. Specific quantities are currently unknown as the final performance characteristics have not yet been tested nor has the final cost per unit been determined.

(E.225) Evaluate relative merits of one-stage vs. two-stage encoding - PQ3/91.

This decision regards refining the RVE distribution concept. As currently planned, RVE will be used to apply the full nine-digit bar code at the first handling.

This means, for instance, that non-presort mail would receive a nine-digit bar code during the outgoing operations. This is known as one-stage RVE.

An alternative operational strategy for RVE would only apply a five-digit bar code on non-presort non-turnaround mail in the outgoing operations. This mail would then receive the four digit add-on at the destination site's incoming operation. Advantages of this system include reduced workload for the critically time constrained outgoing operations, reduced dependence on a full national directory at each automated office, and an option to apply the four digit add-on with an MLOCR with a full local directory at the destination site. The disadvantages include increased materials handling complexity and the possibility of increased rehandlings.

(E.230) Review encoding needs and determine need for additional deployment - PQ1/92. SMC ITEM.

Based on the review of the delivery distribution concept (D.68) and on the tests and experience gained over the previous year, update the RVE deployment quantities and procedures. Issues to consider include one-stage versus two-stage encoding (see above), materials handling techniques, method(s) for lifting mail piece video images, and carrier walk sequence requirements. Other factors also influencing this review will be the MLOCR accept rate performance, customer pre-barcode volumes, a compressed National Directory, and changes in the level of mail machinability.

Facer/Canceler

(E.410) Award AFCS Contract - PQ2/89.

The Board of Governors approved the AFCS program on November 8, 1988. Difficulty in finalizing requirements, option quantity proposals necessitated by the Omnibus Reconciliation Act, impact of the new procurement manual, and review requirements resulted in delays to scheduled contract award. A contract was awarded in late PQ2/89 with production deliveries commencing in mid-calendar year 1990.

(E.420) Begin AFCS Deliveries - PQ3/90.

Deliveries of the AFCS will begin as per the contract awarded in E.410 above. The due date for this activity is changed from PQ2/90 to PQ3/90 due to procurement delays.

Flats Automation

(E.510) Agree on industry standard flat bar code - PQ2/89.

The program to select and specify a flat mail bar code is a joint effort of the Postal Service and mailers. The Interleaved 2 of 5 bar code has tentatively been selected as the bar code that mailers and the Postal Service will use. It can be located anywhere on a flat greater than approximately 1/2 inch from an edge.

A draft flat Mail Bar Code Specification was issued in October 1988 and revised on March 1, 1989. The revision, based on comments received from customers and equipment vendors, was presented to the Automation and Bar Coding Group, Flat Mail Subcommittee on March 9, 1989. It will be made available to mailers and used as a basis for writing Statements of Work for future flat mail equipment and modifications to existing equipment.

Additional comments are being obtained on the specification from a more diverse group of mailers.

(E.515) Estimate flats pre-barcode related cost savings - PQ4/89.

(E.520) Select flats encoding method - PQ1/91.

If the decision is made to pursue flats automation, the possible role of a flats encoder in either the transition years or final concept should be addressed. If encoding appears advisable, then the following should occur:

- Coordinate with the letter encoder program
- Examine craft implications
- Determine the effect on the required number of flats OCRs and BCSs

- Study mailer pre-barcode worksharing

Flats encoding methods will be evaluated in PQ3/89. The analysis will compare five-digit, extraction, and remote video encoding based upon the results of the Merrifield tests (see E.600), plus any other capabilities required to meet the corporate goal.

(E.530) Procure desired FSM encoding system - PQ3/91.

Based on the results of the analysis in PQ3/89, the most desirable encoding system to retrofit existing FSMs should be procured. This will involve the preparation of an RFP if the extraction approach is chosen or a procurement contract if the five-digit approach is indicated.

(E.540) Select strategy to merge Carrier Route Presorted (CRP) Flats with Automated Flats - PQ1/92. SMC ITEM

If it is decided to automate non-Carrier Route Presorted flats, the carrier would receive at least two sorted flat bundles. Opportunities may exist for combining these bundles mechanically rather than requiring the carrier to perform a manual merge. At this time, the decision will be made as to whether any of the potential mechanical merger options are suitable for development.

Flats BCS (FSM Modification)

(E.600) FSM five-digit barcode print/read test - PQ3/89.

Tests are planned in Merrifield, Virginia, to test the feed and read modification to the FSM. This modification allows flats to be automatically fed into the FSM and adds the capability of printing and reading bar codes. This modification will use a fluorescent ink that could minimize the affect of background "clutter". Thus the operator may choose to operate the FSM in one of three modes:

- key/sort
- key/print/verify/sort
- automatic feed/read/sort

(E.610) Begin field testing of model FSMs 788 - PQ3/89.

The FSM 788 Program, also known as the 2+2 program, is aimed at improving the productivity of the present FSM 775. The FSM 788 is the result of a modification to the FSM 775 that moves two of the four induction stations to the far side of the flat sorter, separating the two pairs of induction stations by 50 bins. This modification also replaces the 47 circuit boards with approximately 19. These 19 circuit boards, some identical to our existing OCR circuit boards, will be flexible and designed to accommodate future additions to the FSM 788 such as high speed feeder(s), bar code reader(s), automatic induction station(s), and optical character recognition equipment. Following in-plant and field testing, a production contract award is scheduled to occur in December 1989.

(E.620) Deploy FSMs 788 - PQ1/91.

Between November 1990 and 1991, production and deployment of modification kits to transform FSMs 775 to FSMs 788 will occur.

(E.630) Determine flats BCS requirements - PQ3/91.

Prior to November 1991, it will have been decided how many bar code reading flat sorters, with how many automatic induction stations are required at what sites. At this point, modification of FSMs 788 to an automatic induction, bar code reading configuration could occur. This has been planned to occur by May 31, 1991.

(E.640) Add automatic induction station and bar code reader to FSM 788 - PQ3/92.

The Flat Sorter Enhancement Program is designed to automate the induction process on the FSM 775 and to print and read a bar code representation of the ZIP Code. The equipment developed during this program simulates flats, feeds them by a keyer for key entry of ZIP Code data, automatically inducts the flats into the flat sorter, and prints a bar code representation of the ZIP Code in semi-visible fluorescent ink and reads the bar code to verify its contents.

After mail has been barcoded, this machine can operate in the automatic mode, without keyers. In this case, mail is loaded onto the induction station where it is automatically singulated, inducted into the flat sorter, bar code read, and sorted for distribution. In the manual mode, with keyers, the flat sorter can be operated as a machine or operator paced sorter and the sort scheme can be selected so that a fixed number of key strokes, two, three, four, five or nine digits are required before the flat is inducted.

At this time, the fluorescent bar code has not been ruled out; however, its implementation is unlikely due to its inherent characteristics of semi-visibility and the fact that it cannot be read anywhere on the flat.

(E.650) Add bar code printer/applicators to FSM 788- PQ4/92.

In order to be in a true flat mail automated environment, the Postal Service must be in a position to apply bar codes to flat mail that has not been pre-barcoded by our customers. Within three months of standard bar code agreement with our customers, a statement of work will be completed that will require development of equipment for printing and applying bar codes. The bar codes could be applied either at the automatic induction station or on the mail flat sorter transport, whichever is more cost effective. Contract award is anticipated by October 1989, and field testing could begin in November 1990, with production quantity equipment being delivered beginning in May 1992.

This decision will depend heavily on the success of our customer applied bar code reading program.

Flats OCR/BCS

(E.730) Complete demonstration system of flats OCR - PQ3/91.

The Flats OCR program is aimed at uniting emerging technologies in the optics and digital areas to produce a real-time flat mail OCR. It is anticipated that the developmental contract awarded in October 1988 will be followed by a concept/interface definition phase, a design phase, a system integration phase, and a

live mail test phase. The program should last 26 months and produce a demonstrable flat mail OCR. Follow-on efforts will be required to production engineer, test and manufacture production quantity flat mail OCRs. The change from PQ1/91 to PQ3/91 is due to a three month delay in awarding the flats contract.

(E.740) Prepare DAR for flats OCR - PQ2/93.

The configuration of the flat mail OCR has not yet been determined. It could be an addition to the automatic induction station, it could be a stand alone code desk that simply barcodes flat mail that is not pre-barcoded, or it could be an entirely new machine. The OCR will also serve as a baseline for a future flat mail video encoding system that could take on many different configurations depending on our operational needs at the time. The title of this task could be misleading since we do not currently know whether this will be a separate OCR and BCS or a combined unit. The date is changed to PQ2/93 because of a three month slip in awarding the flats OCR contract.

(E.750) Award contract for flats OCR - PQ3/93.

The date is changed to PQ3/93 due to a three month slip in awarding the flats OCR contact.

(E.760) Start deployment of flats OCR - PQ1/94. SMC ITEM

This item is now an SMC decision point.

Research

(E.800) TRD completes compressed ZIP+4 file development - PQ4/89.

Since the compressed ZIP+4 file will provide MLOCRs with the entire national directory and sequence information, this milestone has important implications for automated incoming secondaries.

- Compression Algorithms has been completed. Total directory within Phase IIA MLOCR memory is feasible.

- Generation of compressed ZIP+4 files at San Mateo Postal Data Center started March 13, 1989.
- Installation of compressed directory in MLOCR at EDC has started on March 22, 1989.
- Testing at EDC has stated on March 24, 1989.
- Directory with enhancements (COA Interception/Redirection and Apt. No. Lookup by customer name) to be studied, and if feasible, developed by July 31, 1989.

Facilities

(F.15) Develop model to determine impact of automation on facilities - PQ2/89. SMC ITEM

The Facilities Department has developed a model, independent of the Westchester Study being performed by the Mail Processing Department, to determine the impact of automation on facilities. Their current five year facilities plans include volume growth, which may accommodate many of our future facility needs as the MPLSMs will be removed and additional automated equipment will be deployed to associate offices, stations, and branches.

A final report has been issued. In addition, a briefing paper has been completed and was on the agenda for consideration by the SMC at the April 10, 1989, meeting.

(F.20) Apply Westchester Study methodology to 75 divisions - PQ489.

Modeling software will require further enhancements to incorporate walk sequence scenarios and the impact of decentralization on delivery facilities. Mr. Coughlin has elected to put a hold on rollout to all divisions until the RPMGs have been briefed and have provided input. RPMG briefing is scheduled during the April meeting. This meeting will be a general overview of progress to date and plans for the future. While walk sequencing and delivery unit enhancements are being developed, the current software will be implemented in three or four additional sites.

Development will also begin for methods to integrate staffing and scheduling software, such as ASRMS into the model. This will allow for prediction of staffing and scheduling impacts because of automation.

Rollout of software to 75 divisions is now scheduled for completion by September 30, 1989.

(F.30) Select strategies to meet space requirements - PQ3/89. SMC ITEM

Final decisions on the trade-offs between investment in equipment, rate discounts, readability improvement, worksharing, etc. will be made in the summer of 1989 by the SMC.

(F.60) Review strategies to meet space requirements - PQ1/91. SMC ITEM.

As deployment of automation equipment continues, the experience gained in the initial years will suggest improvements to the original facility plans. It is expected that in the transition years, annual reviews and updating of the facility planning assumptions and methods will be required.

(F.80) Review strategies to meet space requirements - PQ1/92.

See F.60 above

4.8.6 Summary

Technology alone will not enable the Postal Service to realize fully its 1995 goal. The equipment strategy above depends upon the success of all the strategies. Similarly, customers and the Postal Service together, must make the mail readable and correctly addressed, not only by improving customer mail preparation, but by making the Postal Service automated system more tolerant of varying mail characteristics and approximate addresses. Success requires the coordinated action of all USPS activities, not just the deployment of modern equipment.

In many of the decisions facing the Postal Service, a balance must be reached between the value of making decisions based on time consuming field testing of concepts and equipment, and that of making earlier decisions based on managerial judgment and computer driven decision support models. Certainly, less apparent risk is involved if decisions are deferred until live test data can be compiled. However, the cost of delay may outweigh the reduction of risk. Timely decisions regarding the distribution concept, equipment deployment, flat automation development and facilities tactics will, in part, determine the Postal Service's ability to meet its 1995 goal and achieve the potential savings of the automation program.

CHAPTER 4.9 MEASURE SUCCESS

4.9.1 Background

To ensure that strategic automation goals are met, effective measurement systems are required for each of the Plan's strategies. In some instances that is difficult. Where objective, quantifiable and trackable measures have been obtained, they are discussed in their appropriate Chapter in Section 4.

The Corporate Automation Plan (CAP) goal states that the USPS intends to barcode virtually all letter mail by 1995. Currently, there is no unified, existing system to identify the total volume of nine-digit barcoded mail generated by customers and the USPS.

Substantial portions of such a system to measure barcoded mail within USPS operations are already in place. Specifically, the USPS measures bar codes that are applied at any office by a Multiline Optical Character Reader (MLOCR). We also measure the number of mailer-applied bar codes that enter the system through the Electronic Marketing Reporting System (EMRS). These are two examples of independent efforts that together tell a more complete story of the plan's success.

4.9.2 Summary of Strategy Progress

Since PQ4/88, the following progress has been made:

- There is a group of important measures that pertain to the success of meeting the overall goal of having a barcoded mail stream and realizing dollar savings. These are the measures that are given prominence in quarterly Senior Management Committee (SMC) briefings. A framework for these measures has been developed.

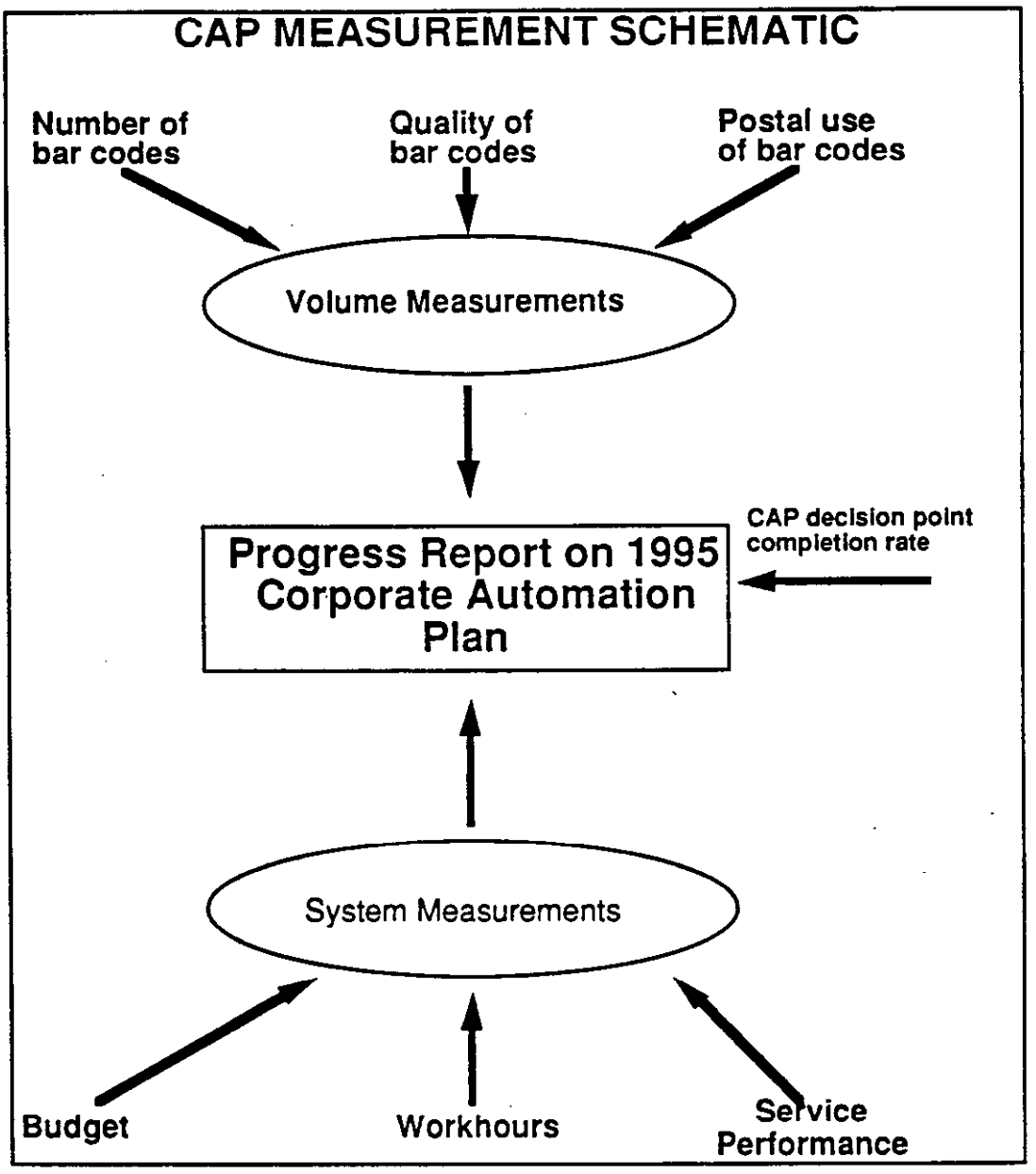
- From a measurement perspective, we state the objective of the CAP as:

    - By 1995, have a mail stream that is virtually all barcoded, with the best possible quality of bar codes, and use those bar codes to process

mail on the most efficient equipment. Let this result in reduced labor requirements (after accounting for volume growth), which in turn results in a corresponding reduction in budget. Accomplish this while not harming a measure of service to the customer.

- This statement defines several components of the system-wide measurement system. These measures are broken out into those related to mail volumes, and those related to the overall system. Volume measurements are the number of bar codes, the quality of the bar codes, and the use of those bar codes. Quality is defined in two ways. First, are the bar codes correct? Do they relate to the proper address on the piece? Second, is the code the deepest possible code? Was a default code used where there was a firm or H-specific record? By use of bar codes, the emphasis is on the use of bar code sorters for incoming secondary sorting, since this is the largest contributor of savings in the plan.

- This framework was presented during PQ2 by the Office of Automation Integration to each of the Program Area Committees (PACs). The comments received from them have been incorporated as strategy revisions. The CAP Measurement Schematic depicts the framework as it currently exists.



- The individual elements of this SMC-level measurement system are described below:

  - Bar codes applied. The first step to achieving savings is getting bar codes on mail pieces. To measure this, we need to recognize that bar codes can be applied by the mailer, by the Optical Character Readers (OCRs), by the Computerized Forwarding System (CFS), and eventually, by encoders. Mailer-applied bar codes are further divided into business reply, courtesy reply, rate discount codes, and by mail

class. Volume figures from each category should be reported, along with percent of total volume.

- Quality of bar codes. Incorrect bar codes are of no use. The raw number of bar codes needs to be accompanied by the *quality* of those bar codes. Quality is defined as (1) whether the applied bar code bears any relation to the address, and (2) whether the bar code is the best possible bar code for that address. This issue is discussed in further detail in Chapter 4.5, Strengthen System Integrity/Quality.

- Postal use of bar codes. The next step to achieving savings is using those bar codes in downstream processing. It is most important, and most feasible, to limit the scope of this measure to the use of bar codes for secondary processing only. How many barcoded mail pieces are being sorted to carrier-route today on BCSs? What fraction of all barcoded mail pieces does this represent? Of the total mail stream? As future incoming distribution concepts are introduced into operations, such as sector segment sorting, the same questions apply to these concepts.

- Effect of automation on cost and workhours. This and the next element refer to system-wide measures. Ultimately, we would like to have an accepted methodology for measuring the effect of the automation plan on the overall postal budget. As the Human Resources PAC pointed out, such an effort should distinguish between workhours and cost.

- Effect of automation on service performance. The automation plan will create significant differences to Postal Service operations. New machinery, new distribution concepts, changes in operating windows, and changes in getting mail to the carrier will all affect the level of service to the customer. Using the ODIS framework for measuring service, namely, the percentage of mail delivered within the defined standard, we want to know how service varies according to whether the mail piece is barcoded. This will require an enhancement to the ODIS data collection system.

- Completion rate of CAP decision points. The Corporate Automation Plan Tracking and Inventory (CAPTAIN) system is operational, and is providing detailed and summary information on progress made on the decision points.

4.9.3 Measure Success of the Corporate Automation Plan

The measure of success for this strategy is the ability of procedures that result from it to: (1) provide senior management with quantitative measures of the progress the USPS is making towards achieving the goal, and (2) to diagnose, where it is feasible to do so, problem areas, and call them to the attention of the responsible department and PAC.

There is no formal methodology planned for measuring the success of this strategy.

4.9.4 Program Area Committee Timeline

The Program Area Committee (PAC) timeline of decision points for this strategy follows. A detailed description of each decision point is provided in Section 4.9.5. For a detailed listing of decision points completed during PQ4/88-1/89, refer to the January 1989 CAP Quarterly Status Report.

* Indicates the item is on SMC Timeline

√ Indicates the item has been completed

Measure

Fiscal Year 1989

	Quarter 2		Quarter 3
Policy	*(M.1)SMC determines method(s) of measuring overall success for Corporate Automation Plan. **Responsibility: SMC** √ *(M.2)SMC determines method(s) of measuring success for Define and Communicate Corporate Goals strategy. **Responsibility: SMC** √ (M.3)Services and Prices PAC determines method(s) of measuring success for Optimize Participation strategy. **Responsibility: S&P PAC** √ (M.4)Technology PAC determines method(s) of measuring success for Improve Addressing and Readability strategy. **Responsibility: TPAC** √ (M.5)Services and Prices PAC determines method(s) of measuring success for Price Strategically strategy. **Responsibility: S&P PAC** √ (M.6)Operation PAC determines method(s) of measuring success for Strengthen System Integrity/Quality strategy. **Responsibility: OAI** √ (M.7)Advice and consent of SMC regarding OAI plans for measurement of success for Integrate Functional Activities strategy. **Responsibility: OAI** √	(M.8)Operation PAC determines method(s) of measuring success for Forecast Distribution, Equipment, and Facilities Requirements strategy. **Responsibility: OAI** √ (M.9)Human Resources PAC determines method(s) of measuring success for Manage Human Resources/Capture Savings strategy. **Responsibility: HR PAC** √ *(M.10)Implement automated CAP tracking system. **Responsibility: OAI** √ (M.11)OAI will track the development of the measurement system for each strategy. **Responsibility: OAI** √	*(M.12)Begin tracking 9-digit bar code volume. **Responsibility: FD** (M.14)Implement automation readability measurement system. **Responsibility: MP** (ONGOING)

Success Timeline

Quarter 4	Fiscal Year 1990 Quarter 1	Quarter 2	Postal Quarter 3/9 Fiscal Year 1995
	(M.15)Assess progress using measurement system. **Responsibility: OAI** *(M.20)Monitor CAP savings. **Responsibility: DC**	(M.25)Adjust measurement systems for continued use. **Responsibility: SMC & PACs**	*(M.30) Validate FY savings for CAP.(PQ 3/9 - Ongoing) **Responsibility: DC**

4.9.5 Decision Point Descriptions

As a beginning point, methods of measuring success must be determined. PQ1/89 is suggested as the appropriate time to make this determination. With the advice and consent of the SMC and PAC chairs, additional decision points and timelines will be developed quickly after these decisions are made.

Policy

(M.1) SMC determines method(s) of measuring overall success for CAP - PQ2/89. SMC ITEM

(M.2) SMC determines method(s) of measuring success for Define and Communicate Corporate Goals strategy - PQ2/89. SMC ITEM

(M.3) Services and Prices PAC determines method(s) of measuring success for Optimize Customer Participation strategy - PQ2/89.

(M.4) Technology PAC determines method(s) of measuring success for Improve Addressing and Readability strategy - PQ2/89.

(M.5) Services and Prices PAC determines method(s) of measuring success for Price Strategically strategy - PQ2/89.

(M.6) Operation PAC determines method(s) of measuring success for Strengthen System Integrity/Quality strategy - PQ2/89.

(M.7) Advice and consent of SMC regarding OAI plans for measurement of success for Integrate Functional Activities strategy - PQ2/89.

(M.8) Operation PAC determines method(s) of measuring success for Forecast Distribution, Equipment, and Facility Requirements strategy - PQ2/89.

(M.9) Human Resources PAC determines method(s) of measuring success for Manage Human Resources/Capture Savings strategy - PQ2/89.

(M.10) Implement automated CAP tracking system - PQ2/89 SMC ITEM

There are existing measurement systems which can be used to determine the degree of success the Postal Service is achieving for the various automation strategies. However, some new measurement systems may also need to be developed and implemented. Therefore, overall management analysis is needed to resolve the course of action.

(M.11) OAI will track the development of the measurement system for each strategy - PQ2/89 - FY95.

(M.12) Begin tracking nine-digit bar code volume- PQ3/89. SMC ITEM

Increasing barcoded volume is central to the automation goal and therefore should be measured. This represents one of the SMC-level measures that is vital to track.

(M.14) Implement automation readability measurement system - PQ3/89.

This activity is necessary since RPMGs have agreed to include readability improvements in performance measurement indicators.

(M.15) Assess progress using measurement systems - PQ1/90.

One year after PACs and the SMC have determined the methods of measuring success to be used, an assessment of the progress which has been made should be done. This is an ongoing activity.

(M.20) Monitor CAP savings - PQ1/90. SMC ITEM

(M.25) Adjust measurement systems for continuing use - PQ2/90.

As the assessment process continues, it may be necessary to adjust existing measurement systems or develop additional methods for measuring success on a continuing basis.

(M.30) Validate FY savings for CAP - FY90-95. SMC ITEM

4.9.6 Summary

Progress was made on this strategy on all fronts during the past quarter. A system has been defined and presented to each of the PACs. They have approved and provided comments. These have been incorporated into the system defined in this Chapter. The challenge for the upcoming quarter will be to begin to implement these recommendations.

APPENDIX A QUANTITATIVE ANALYSIS OF ALTERNATIVE SCENARIOS

A.1 Background

The effect of the Corporate Automation Plan (CAP) on Postal Service operations and finances has been estimated for the fiscal years 1989 through 1995. The scenario described in this Plan is referred to in this Appendix as the "CAP Target". The scenario used for comparison purposes is called "Phase II Only Base". Phase II Only Base assumes no new initiatives or procurements beyond those in which the Postal Service was involved in 1988, namely the Phase II programs.

The analysis builds upon ideas generated in the focus groups. In many instances, follow-up discussions with functional management at headquarters further described and refined those ideas. The analysis also builds upon previous Postal Service work that is embodied in the Automation Strategy Review and the Automation Integration Status Report.

The quantitative analysis was performed primarily through use of the dynamic national mail flow Model for Evaluating Technological Alternatives (META). META has been developed, updated, verified and utilized since 1985 by the USPS, in conjunction with Consultants for Management Decisions, Inc.

The quantitative analysis considers mail volumes and flows; the impact of rate incentives; equipment quantities, characteristics and costs; and labor costs. Model outputs include information on barcoded mail produced, the work hours and equipment required to process the mail, and the direct costs of distribution.

A.2 Summary of CAP Target

This section describes the major concepts, assumptions and results of the CAP Target scenario.

The present CAP Target builds upon the previous CAP Target used in the Corporate Automation Plan, October 1988. For letters, the CAP Target includes:

- Rate incentives and marketing efforts to increase customer pre-barcoding to 39 percent of 1995 total letter volume
- Marketing and field support efforts to improve the quality of mail not pre-barcoded
- A two-pass incoming secondary operating plan to sort mail to the sector segment level
- Sufficient Multiline Optical Character Readers (MLOCRs), Remote Video Encoding (RVE), and Bar Code Sorters (BCSs) for a "normal heavy day" 25 percent above average
- Savings from both mail processing and carrier-in-office operations

For flats, the CAP Target includes:

- Rate incentives and marketing efforts to pre-barcode 49 percent of 1995 non-carrier route flats
- Rate incentives and marketing efforts to shift 10 billion flats to letters by 1995
- Marketing and field support efforts to improve the quality of mail not pre-barcoded
- A one-pass incoming secondary operating plan to sort mail to the carrier route level
- FSM "2+2" and Auto-Feed Induction Station (AFIS) modifications
- Purchase of additional FSMs
- A flats OCR and RVE system to begin deployment in 1994
- Savings from mail processing operations only

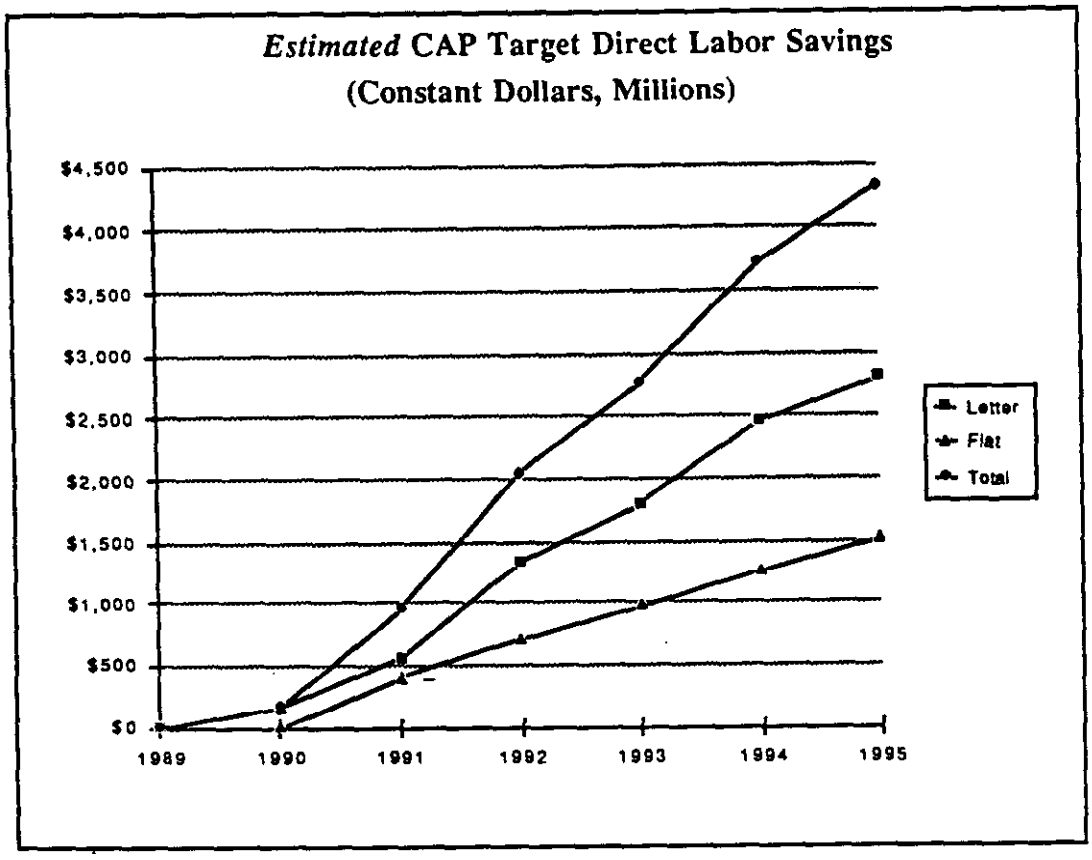
Since October 1988, the CAP Target has been updated or enhanced to reflect the following:

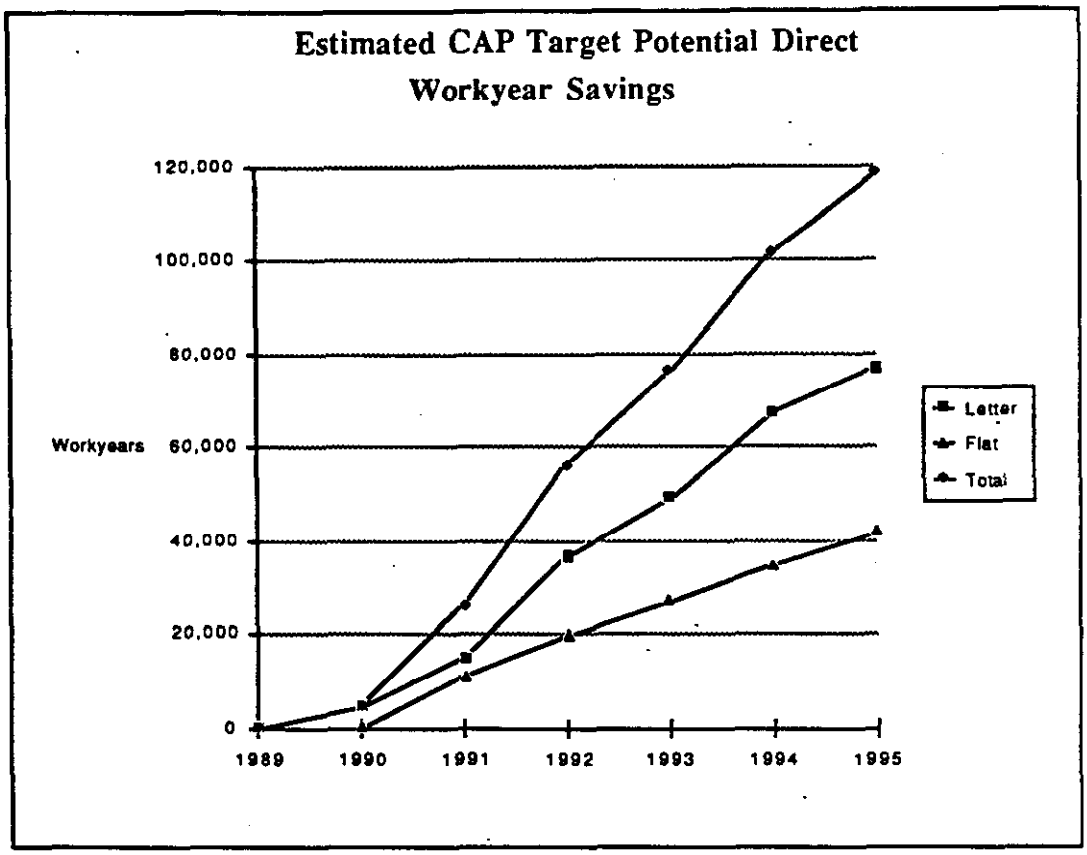
- January 1989 Rates and Classifications "40 Line" volume forecast through 1995
- January 1989 Marketing estimates for potential customer pre-barcoding

- Actual (rather than planning assumption) equipment throughputs, accept rates and staffing levels where available
- Nine-digit bar code depth of code
- No "Phase IV" OCRs or BCSs
- Addition of advanced facer canceller to do enriching
- RVE done at origin for rejected and five-digit barcoded mail pieces, rather than encoding non-turnaround mail at its second handling at the destinating facility
- Distinction among, and to what extent, route types are initially two-passed
- Inclusion of, and separate treatment for, record type volume (F, H, and S (NDCBU) records riffled, H (default) and S records cased at a faster rate)
- Rural routes receive sector segment sortation later and with lower penetration
- Focus group conclusions regarding possible impacts of field operations efforts
- A revised flats operating plan calling for a one-pass rather than two-pass incoming secondary
- Additional customer pre-barcoding of flat mail
- Delayed flats OCR/BCS deployment to 1995
- FSM 2+2 modification deployed beginning in November 1990
- FSM auto feed induction station deployed beginning April 1992

The net effect of these changes was to lower the potential 1995 workyear savings nearly 15 percent to approximately 118,000. The major factors leading to this decline were: the change in the flats operating concept to sort to carrier route rather than sector segment; the later availability of flats automation equipment; the exclusion of large numbers of rural routes from sector segment sortation; and the use of more conservative, actual equipment performance and staffing levels with no forecasted improvement.

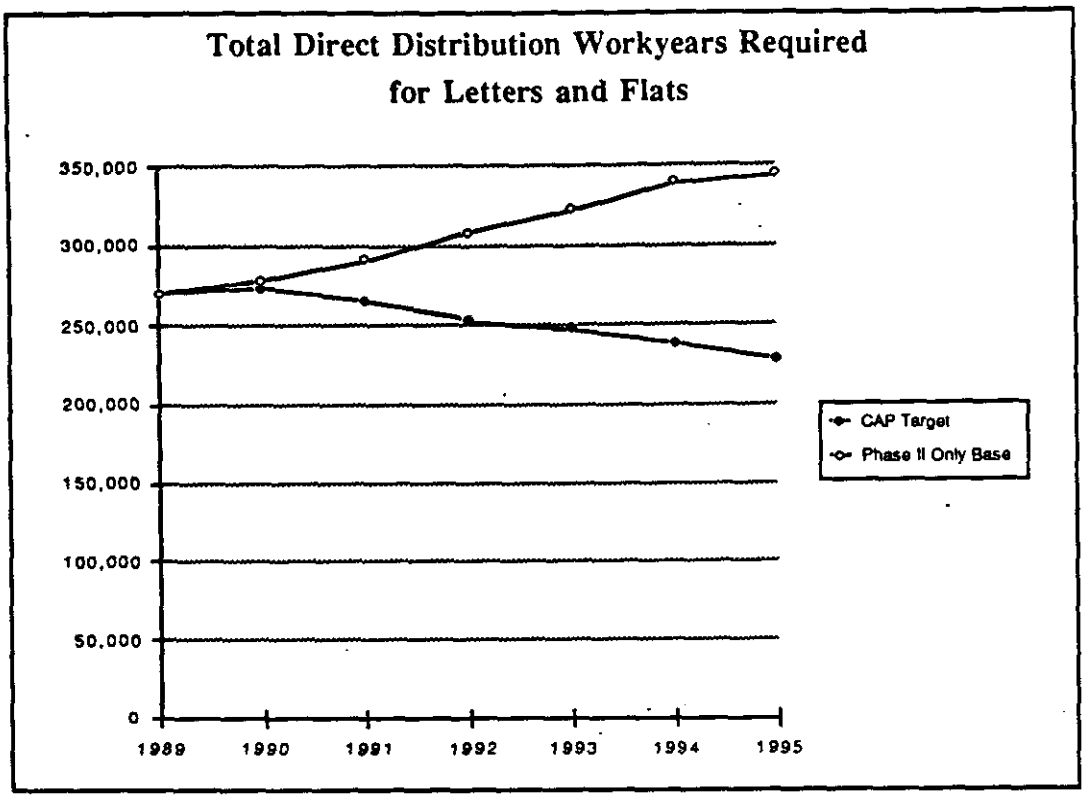
The figures below summarize the potential financial benefits and workyear savings indicated by the CAP Target compared to the Phase II Only Base.


Estimated CAP Target Direct Labor Savings
(Constant Dollars, Millions)
$4,500
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
1989
1990
1991
1992
1993
1994
1995
Letter
Flat
Total

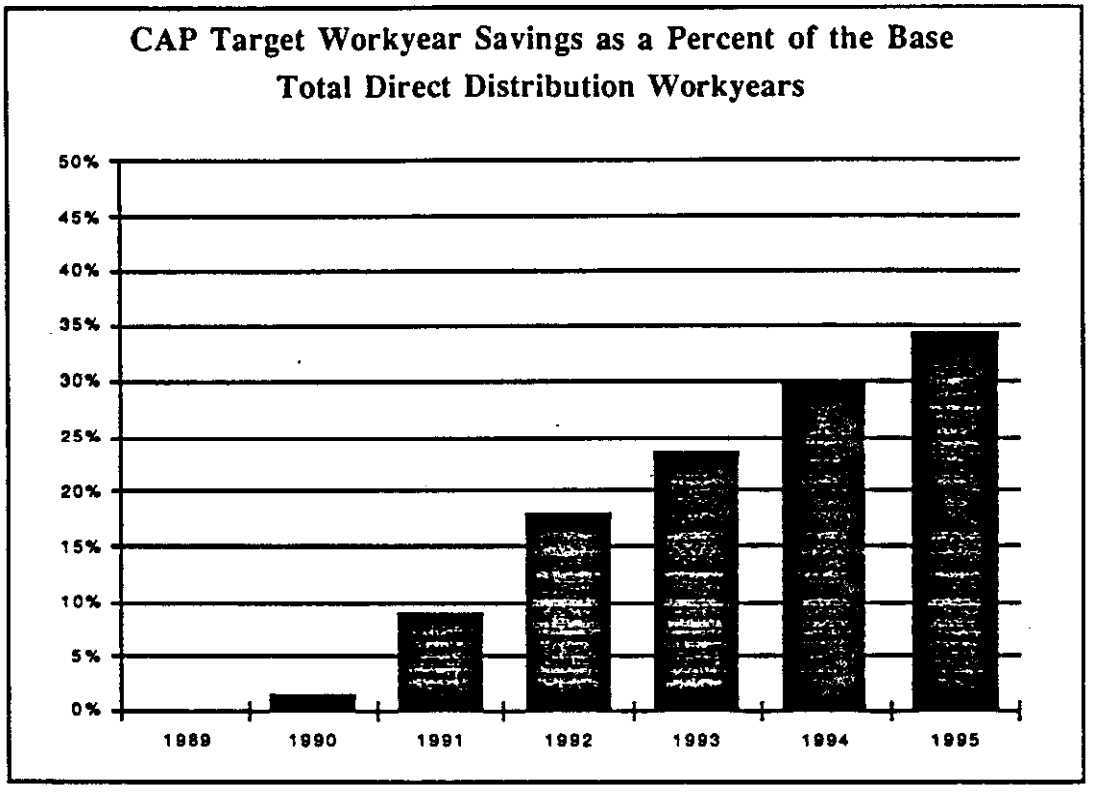


. The scope of the analysis included labor hours in Labor Distribution Codes (LDCs) 11, 12, 13, 21, 43, and 44. Supervisory labor is included. Allied labor is accounted for to the extent that MODS operation TPH, staffing indexes and productivities include associated mail handler or other allied labor. Letter savings compared to the Phase II Only Base are somewhat deflated due to the added letter volume resulting from shape-based rates. Conversely, flat savings are somewhat higher due to the absence of that mail.

Savings are constrained in the first years due to a lack of nine-digit barcoded mail in the postal system and the relatively low quantities of bar code sorters. After FY90, the CAP Target suggests that the total workyears required for direct distribution operations will begin a decline that continues through 1995. As the following figure shows, the Phase II Only Base estimates that total workyears could increase over 25 percent if no further automation were pursued.

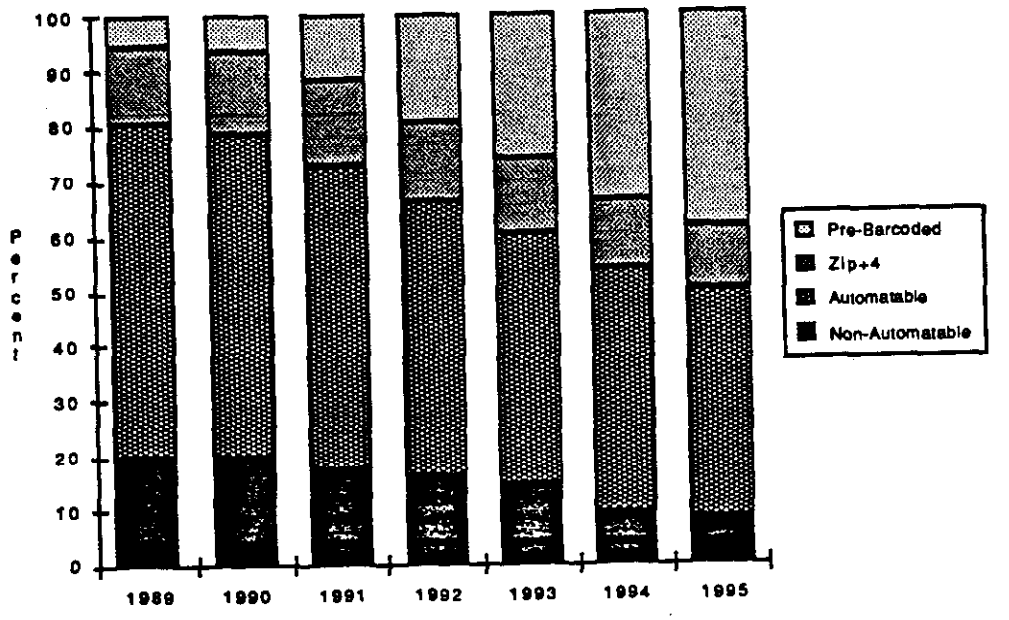


Another way to visualize the impact of the CAP is to show the saved workyears as a percent of the total workyears required by the Phase II Only Base. By 1995, the automation program could save one-third of the Phase II Only Base workforce requirements. This chart also shows that the projected impact of the automation program could be substantive several years before 1995.

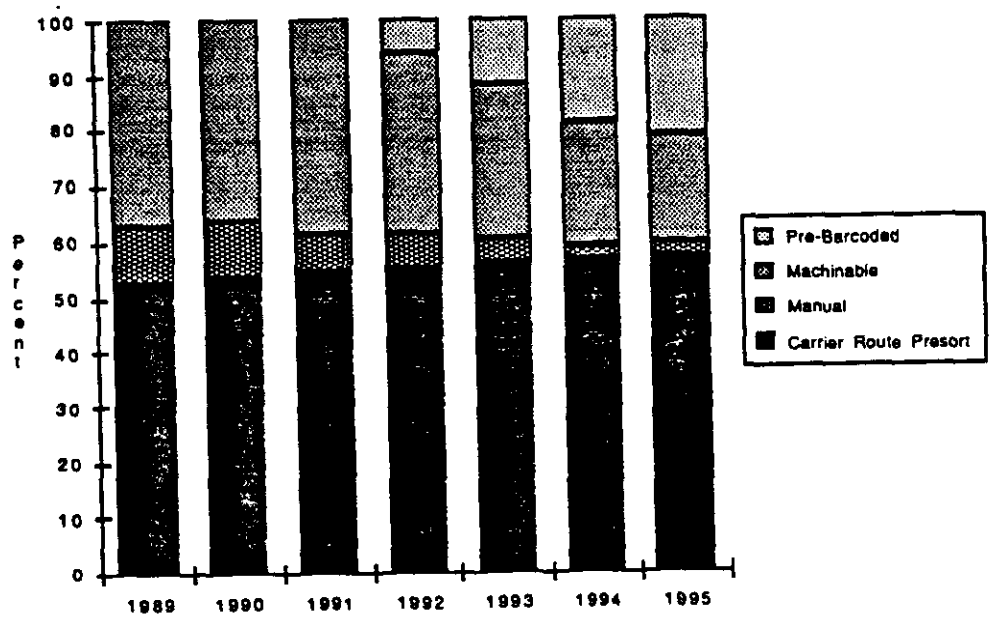


The following two figures demonstrate that one reason for the success projected by the CAP Target is the increased customer participation in worksharing programs, particularly pre-barcoding mail. For that mail not pre-barcoded, greater customer awareness of proper addressing practices, preferred mail preparation and readability requirements is postulated from the efforts of marketing and field operations. This work in persuading customers to move their mail up the "automation ladder" makes the potential savings shown above possible.

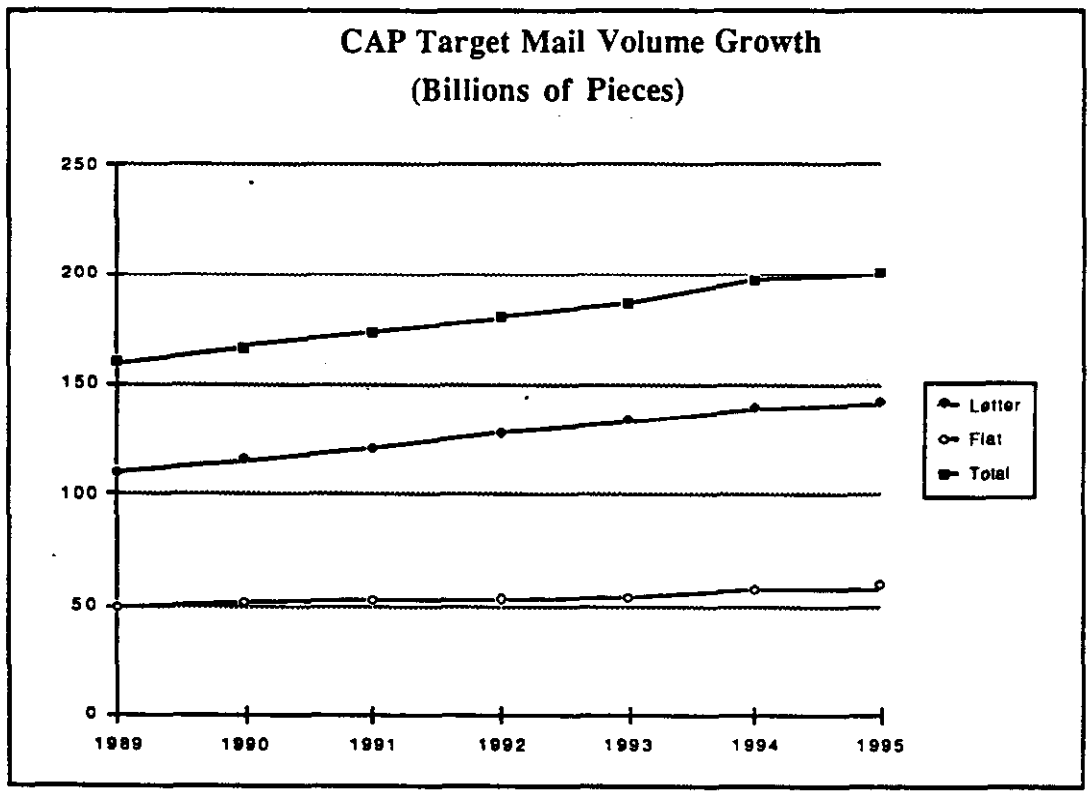
Estimated CAP Target Letter Mail Mix



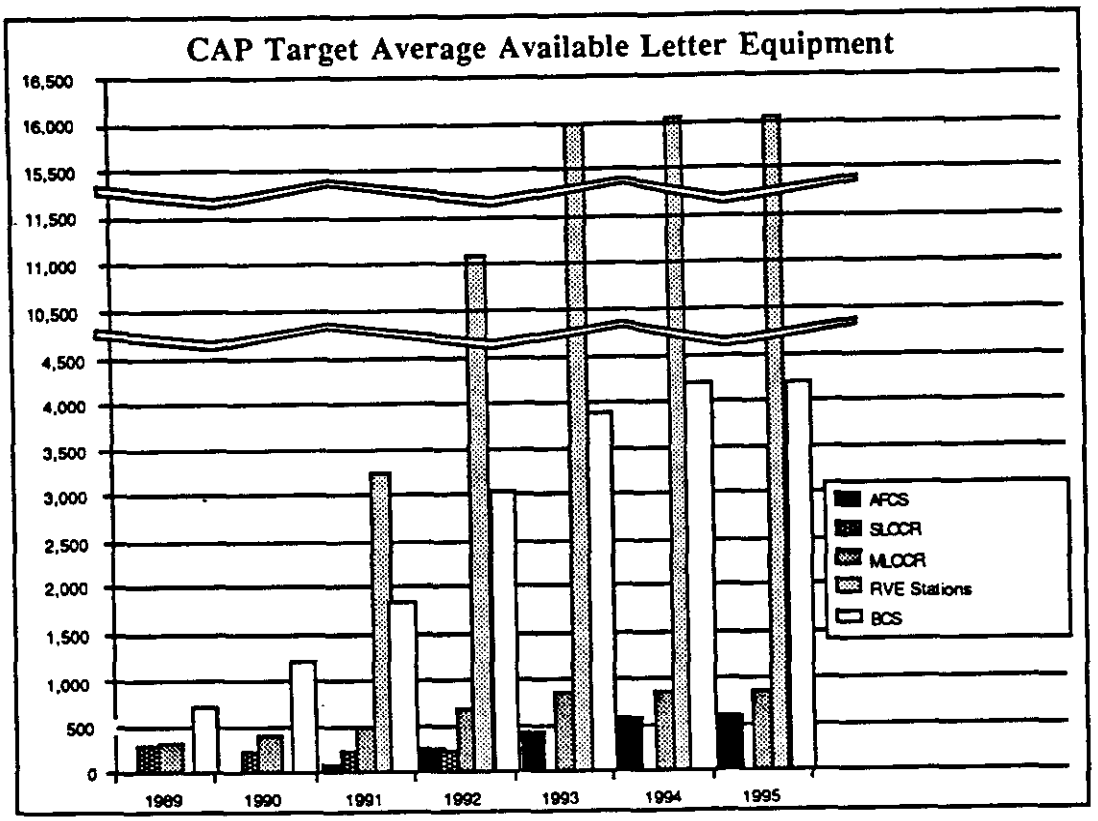
Estimated CAP Target Flat Mail Mix

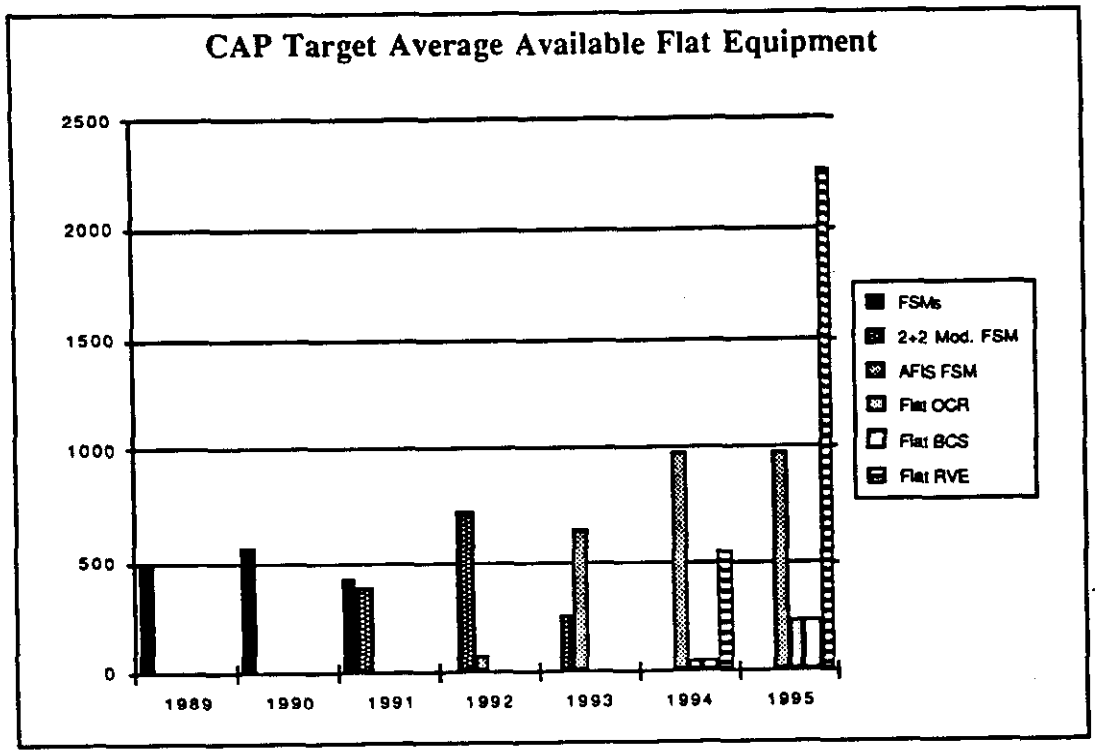


Meeting these customer participation levels becomes more critical when the growth in total mail volume is also considered. Total volume is estimated by Rates and Classifications to grow nearly 33 percent between 1989 and 1995. The growth in letter mail is postulated to be higher than growth in flats due in part to shape-based rates established in 1991.



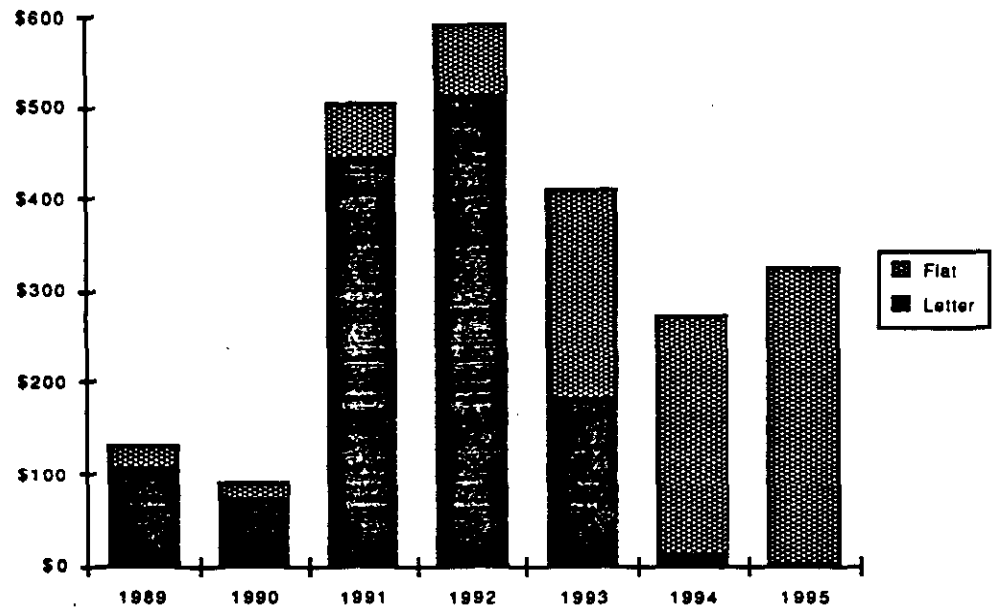
The automated processing of these projected mail volumes will require substantially greater quantities of equipment than the USPS currently possesses. A fully automated 1995 mail stream will require nearly twice the number of MLOCRs and five times the number of BCSs than are currently in the field. In addition new Facer/Cancellers, RVE equipment, and flats bar code readers will also need to be in place.


CAP Target Average Available Letter Equipment
16,500
16,000
15,500
11,500
11,000
10,500
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1989
1990
1991
1992
1993
1994
1995
AFCS
SLOCR
MLOCR
RVE Stations
BCS


CAP Target Average Available Flat Equipment
2500
2000
1500
1000
500
0
1989
1990
1991
1992
1993
1994
1995
FSMs
2+2 Mod. FSM
AFIS FSM
Flat OCR
Flat BCS
Flat RVE

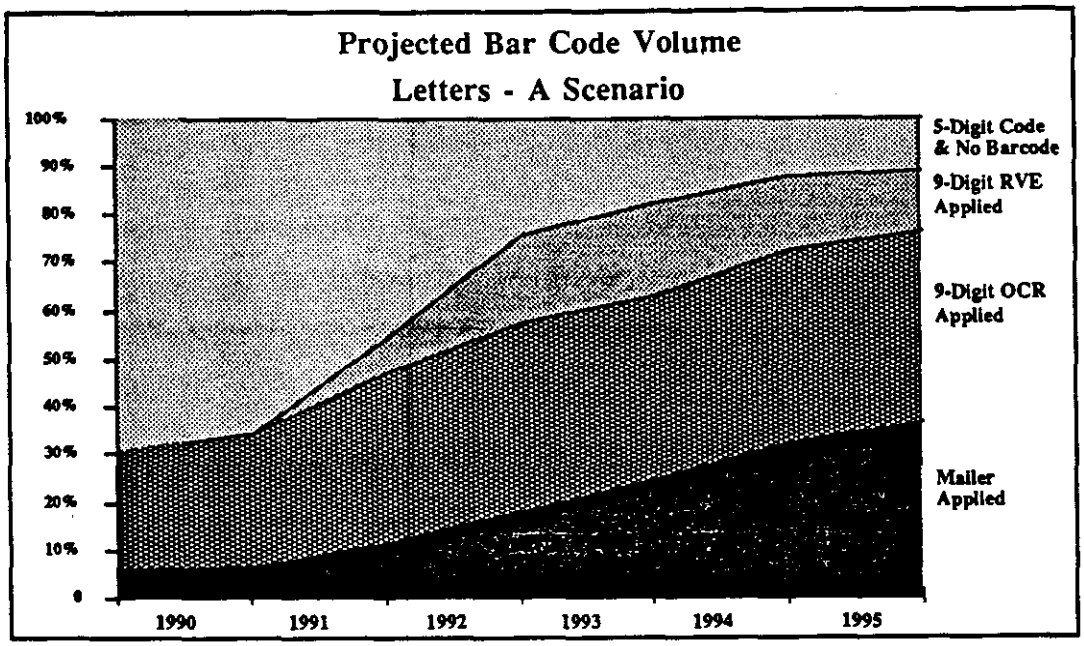
The timing and size of the investment costs associated with acquiring the needed equipment are shown below.

Estimated CAP Target Investment Costs
(Constant 1989 Dollars, Millions)



Seven Year Total Approximately $2.4 Billion

Increased customer participation combined with the deployment of MLOCR and RVE equipment increases the quantity of nine-digit barcoded mail in the postal system as early as FY91. The following graph shows the assumed penetration from the current state in 1989 until 1995. This graph also shows the source of the nine-digit barcoded mail.



The percentages shown for bar codes applied by each method do not represent commitments or functional goals. They result from assumptions made by the Office of Automation Integration (OAI) for the purpose of modeling strategic alternatives.

A.3 Summary by Year of the CAP Target Programs and Results

This section will describe the CAP Target in each year modeled. It will describe the major events and programs which lead to the creation and use of bar code volumes to generate workyear and dollar savings.

A.3.1 The CAP Target in 1989

In fiscal year 1989, the Postal Service will nearly complete the Phase II automation procurements. By the end of this year, 400 MLOCRs and almost 600 Phase II BCSs will be in the field. These augment the 248 Single Line Optical Character Readers (SLOCRs) and 246 phase I BCSs deployed. Additionally, in late 1989, 400 Multi-Position Letter Sorting Machine (MPLSM) consoles will be converted to read bar codes.

In the later part of this year, the Letter Mail Readability Index (LMRI) improvement program begins to have some impact on MLOCR nine-digit encode rates.

The CAP Target uses this equipment to sort as much mail as possible to the carrier route level. As would be expected, savings compared to the Phase II Only base case are negligible. The only opportunities for savings compared to the baseline arise from the initial LMRI program effects and the conversion of a few hundred MPLSM consoles in mid-summer.

A.3.2 The CAP Target in 1990

In fiscal year 1990, the Postal Service will complete the Phase II automation procurements by deploying the last 80 Phase II BCSs of the 224 option. At the beginning of 1990, an additional 1356 MPLSM consoles are scheduled to be converted into bar code readers. However, the largest equipment event in this year will be the start of the Part B program. In January, the Part B BCS procurement begins with the Part B MLOCRs scheduled to arrive in late spring to early summer.

The impact of the LMRI improvement program will continue in 1990 in combination with the beginnings of a broader based field operations push to improve the readability and machinability of all letter mail, not just non-presort mail.

Operationally, some sector segmenting of box sections and business routes will begin after as much mail as possible is sorted to the carrier route level. In the absence of either substantially increased customer pre-barcoding or sufficient

internal ability to apply bar codes via MLOCR or RVE, less than 35 percent of the letter mail will have a nine-digit bar code; the amount of mail with a correct nine-digit bar code, coded to the finest level, is projected to be even less. This leads to relatively few zones with sufficient volume to justify automated incoming secondary sortation.

No change is expected in the way flats are processed. Mechanization capacity constraints are reduced by the addition of 100 Flat Sorting Machines (FSMs).

Compared to a Phase II Only baseline, the CAP Target projects saving just over $200 million by processing 15 percent of the 40 billion nine-digit barcoded pieces in the system to a sector segment level. Twenty-four billion nine-digit barcoded pieces will be sorted to the carrier route level. The remaining 10 billion nine-digit barcoded pieces are projected to either destinate in zones with insufficient barcoded volume to justify automation at this time or were rejected from the equipment.

The CAP Target suggests that increased productivity due to automation in fiscal year 1990 will not completely offset the workload increase due to higher mail volumes. It estimates, therefore, that direct distribution required workyears will increase 1.5 percent, nearly 5,000 full-time equivalents.

A.3.3 The CAP Target in 1991

The major event in 1991 will be the implementation of a new rate structure stressing automation. Pre-barcoding, automation compatible and shape incentives are anticipated in CAP Target. The immediate projected result is that mailer applied bar codes will more than double to 14 billion pieces and nearly double again in 1992.

In conjunction with the rate case, major marketing and field operations programs will be postulated which improve the machinability and readability of the mail base. For example, MLOCR accept rates are expected to rise 1 to 4 points, depending on class and presort level.

The pace of equipment procurement will increase in 1991. The Part B program will be in mid-deployment. The Delivery Bar Code Sorter program also will begin during this year at an accelerated pace of 72 machines per month. RVE will also begin its deployment schedule in this year. Finally, the CAP Target suggests that the purchase of BCSs from ECA at 24 per month be continued rather than shutting down that production line.

The results of the rate case and increased equipment purchases are reflected in over 65 billion nine-digit bar codes in the system in 1991, which amounts to 50 percent of the letter mail stream. Approximately 60 percent of the non-rural routes that are sorted on automation at incoming secondary will be sorted to the sector segment level. The remaining 40 percent will be one-passed to the carrier route level.

Net MLOCR nine-digit encode rates are estimated to fall nearly 7 points in 1991 despite continued improvements in accept rates and nine-digit upgrade rates for each mail type. This results from the fact that the additional deployments allow an ever larger proportion of the total letter mail base to be routed to the MLOCRs. The larger quantities of lower quality mail, such as collection and BBM mail being processed, will bring down the average net nine-digit encode rate.

Improvements will also begin in the flats. The 2+2 modification to the FSM 775 is scheduled to begin in 1991 with a resulting increase in throughput. The rate case will begin to shift some flats to automatable letters.

The savings will jump to nearly $1 billion dollars through the avoidance of over 25,000 workyears. For the first time, required direct distribution workyears will decline from the previous year.

A.3.4 The CAP Target in 1992

In fiscal year 1992, the USPS will build upon the rate case momentum in improving the mail base and by deploying more equipment than in any other year in the plan.

In the area of customer relations, the CAP Target postulates continued penetration of the new pre-barcoding, automation compatible, and shape-based products in all classes and shapes of mail.

Due to continued marketing, field operations and technology enhancements, nine-digit encode rates will improve despite feeding an ever larger percentage of the letter mail base across the MLOCRs and RVE stations.

Every letter equipment program will be deploying at its maximum rate in 1992. Deployments planned for 1992 include 176 Advanced Facer Cancellers, nearly 200 Part B MLOCRs, and over 500 Part B BCSs, 575 Delivery Bar Code Sorters and 7,000 RVE stations. This amounts to nearly 20 MLOCRs, 96 BCSs and 650 RVE stations installed each month of the year except December.

FSMs will begin to receive another modification to allow auto induction in mid-1992. Importantly, this modification will also allow the FSM to read mailer applied bar codes. The effect of the 1991 rate case is postulated to begin at this time in flats with mailers pre-barcoding over 10 percent of the non-carrier route presort flats which the USPS may begin to process in the last half of the year with the Automated Flats Induction Station (AFIS) modified FSMs.

Sufficient nine-digit bar codes and BCSs will exist in 1992 to fully sector segment 94 percent of the non-rural routes.

In fiscal year 1992, the CAP Target will double the 1991 savings to $2 billion and nearly 60,000 workyears saved. Thus, the potential direct distribution labor savings in this one year can approximately equal the entire investment cost of the six year automation program.

A.3.5 The CAP Target in 1993

In fiscal year 1993, the CAP Target will show the USPS continuing to build upon the momentum in improving the mail base and winding down its equipment deployment schedules.

The final Part B MLOCRs will be deployed in 1993, along with the final fourth of the RVE stations. No additional Part B BCSs will be deployed while the Delivery BCS deployment program is slowed to 48 per month. To process the growing amount of flat pre-barcoded mail, an additional 175 AFIS equipped FSMs are procured.

Field Operations, Marketing, and Engineering efforts will continue to increase MLOCR accept rates at the level of 1.5 to 3 points per year depending upon mail class and presort level. These efforts will bring the net nine-digit encode rate back to its fiscal 1990 levels. Customer pre-barcoding levels will also continue to increase by a more modest 33 percent.

During this year of consolidating its gains, the postal system will contain over 110 billion nine-digit bar codes which the USPS will use to save over 70,000 workyears and $2.7 billion (constant 1989 dollars).

A.3.6 The CAP Target in 1994

In fiscal year 1994, the CAP Target will anticipate a rate case that extends and expands incentives for the automation program. As a result, over 30 percent of the letter mail will be pre-barcoded for the first time for a total of 48 billion pieces out of 149 billion total letter pieces — including the impact of shape-based incentives. Flat mailers are also postulated to respond to rate and marketing incentives by pre-barcoding 10 billion flats.

By the end of the first quarter of 1994, all letter equipment required for 1994 and 1995 peak volumes will have been deployed. The field will now have more than 850 MLOCRs, 14,000 RVE stations and 4,000 BCSs.

A concerted effort by marketing and field operations to capitalize on the 1994 rate case will enable MLOCR accept rates to improve at their now historical rate of 1.5 to 3 points per year, depending on mail class and presort level.

In 1994, the USPS will begin accepting production flats OCRs at 16 per month. An additional 16 flats BCSs (flats OCRs without the OCR module) will be

deployed. This will allow the USPS to begin to automate the 50 percent of the non-carrier route presorted flats which are not pre-barcoded.

In 1994, the CAP Target shows the USPS processing 94 percent of the non-rural and one-third of rural route nine-digit barcoded volume to the sector segment level to save nearly 100,000 workyears and over $3.5 billion dollars.

A.3.7 The CAP Target in 1995

In fiscal year 1995, the CAP Target will process 155 billion nine-digit bar codes on letters and flats to save a potential 118,000 workyears and over $4.25 billion, in constant 1989 dollars.

From 1989, the USPS will have seen 1989 customer pre-barcoding rise from about 5 percent of its mail to over 35 percent of its letter mail. As in 1994, nearly all non-rural and substantial amounts of rural route letter mail will now be sorted to sector segment levels. Non-Carrier route presort flats will be 45 percent pre-barcoded. Automated incoming secondaries sorting to the carrier route level will process 75 percent of the flats barcoded volume.

The success of the automation program will be demonstrated by the fact that despite a 33 percent volume increase between 1989 and 1995, the Postal Service uses 40,000 fewer workyears in 1995 in direct distribution than it did in 1989.

A.4 Conclusion

The analysis demonstrates the potential benefits of a coordinated automation plan. Extending the automation plan to flats can provide additional, significant cost benefits. Pursuing a customer flats pre-barcoding program while simultaneously shifting mail away from the flats mail type through rate incentives provides savings over $1 billion in 1994 (as measured in constant 1989 dollars). Adding a flats OCR/BCS beginning in 1995 expands savings opportunities to a total exceeding $1.5 billion by including the non-carrier route presort, flat mail customers choose not to pre-barcode. With letters, the acceleration of the automation equipment program, and the pursuit of readability improvements, as specified by the CAP Target, can be expected to yield savings of greater than $2.75 billion. An integrated

flats and letters automation program, coordinated across all USPS functional areas, has the potential of saving one-third of the direct distribution labor hours, amounting to 100,000 workyears, required by the less automated option of freezing automation at the 1988, Phase II levels.

The largest cost component is the equipment investment, which is shown to be a small fraction of the potential savings. However, not all costs associated with implementing the plans have been quantified. Other costs would be incurred in areas such as increased overhead expense.

APPENDIX B SENIOR MANAGEMENT COMMITTEE (SMC)

Membership

Postmaster General
Deputy Postmaster General
Associate Postmasters General
Senior Assistant Postmasters General
General Counsel
Chief Postal Inspector
Assistant Postmaster General, Planning (Secretariat)
Assistant Postmaster General, Communications (Observer)
Assistant Postmaster General, Government Relations (Observer)
Executive Assistant to Postmaster General (Observer)
Secretary to the Board of Governors (Observer)
Field Executive (Rotation Basis)

Responsibility/Actions

- The SMC establishes Postal Service direction and policy, initiates and monitors key programs, set priorities for resource utilization, and serves as the review and approval body for all major plans, programs and projects. It fosters cross-functional cooperation and develops the strategic plans for the Postal Service.
- The committee meets every two weeks. The Deputy Postmaster General chairs the meetings.
- Capital investment and developmental funding topics are considered by the Senior Assistant Postmasters General and the General Counsel, with the SAPMG, Finance chairing those portions of the meeting. Top management participates in discussing funding proposals with the SAPMGs when strategic changes are involved. If the number of SMC agenda items necessitates, a separate meeting may be scheduled.
- A new field representative is selected about every three months.
- On a quarterly basis, the principal members of the committee meet to discuss strategic issues, focus, and progress.
- The Secretariat is responsible for agenda management and meeting summaries.

APPENDIX C PROGRAM AREA COMMITTEES (PAC)

Responsibilities/Actions

- The four existing Program Area Committees focus on key issues with responsibility to provide insight and resources to staff out issue alternatives and recommendations. Assignments come from the Senior Management Committee or the PAC chairman.
- The PAC Chairman may assign an officer to their PAC for a particular project.
- The PAC agendas are circulated to all headquarters officers, approximately two weeks prior to the meeting. Any interested officer may attend a PAC meeting, subject to the chairman's prior approval. The written summaries of PAC meetings are distributed to all officers.
- All information briefings on issues, programs and projects are provided to the members of all PACs at a regularly scheduled exchange meeting, so that the PAC agendas are not duplicates of each other. The APMG, Planning acts as the agenda and meeting facilitator for the exchange meetings.

Human Resources PAC - SAPMG, Human Resources

Communications
Delivery Services
Employee Relations
Deputy General Counsel
Labor Relations
Training and Development
Treasurer

Operations PAC, SAPMG, Operations Support

Consumer Advocate
Controller
Distribution, Delivery & Transportation
Engineering and Technical Support
Facilities
Information Resource Management
Labor Relations
Marketing
Operations, Systems and Performance
Procurement and Supply
Technology Resources
Training and Development

Services and Prices PAC, SAPMG, Marketing and Communications

Communications
Consumer Advocate
Employee Relations
Deputy General Counsel
International Postal Affairs
Mail Processing
Marketing
Philatelic and Retail Services
Planning
Rates and Classification

Technology PAC, SAPMG, Administrative Services

Engineering and Technical Support
Government Relations
Information Resource Management
Philatelic and Retail Services
Planning
Procurement and Supply
Rates and Classification
Technology Resources
Training and Development

APPENDIX D GLOSSARY

A

ABC	Advanced Bar Code
ABC Group	Automation and Bar Coding Group
ACS	Address Correction System
ADC	Area Distribution Center
AFAT	Automated Financial Analysis Task
AFCS	Advanced Facer Canceler System
AFIS	Automated Flats Induction Station
AIS	Address Information Systems
AMF	Airport Mail Facilities
AO	Associated Office
APMG	Assistant Postmaster General
ARM	Accelerated Reply Mail
ARS	Automation Readability Specialist
ASRMS	Automated Staffing and Resource Management Simulator

B

BCS	Bar Code Sorter
BRMAS	Business Reply Mail Accounting System
BRM	Business Reply Mail

C

CAP	Corporate Automation Plan
CAPTAIN	Corporate Automation Plan Tracking and Inventory System
CASS	Coding Accuracy Support System
CD	Communications Department
CFS	Computerized Forwarding System
CIC	Capital Investment Committee
CPC	Corporate Program Committee
CRIS	Carrier Route Information System
CRP	Carrier Route Presort
CWS	Carrier Walk Sequence

D

DAR	Decision Analysis Report
DC	Department of the Controller
DCMP	Depth of Code Measurement Program
DDD	Distribution and Delivery Department
DS	Delivery Services Department
DDT	Distribution, Delivery and Transportation Department
DUSQ	Delivery Unit Sort Quality

E

EMRS	Electronic Marketing Reporting System
ER	Employee Relations Department
ES	Engineering and Technical Support Department
ESC	Engineering Support Center
ETS	Engineering and Technical Support Department

F

FC	Facer/Canceller
FCM	First Class Mail
FD	Facilities Department
F-Record	Address Information System designation for a particular firm
FSM	Flats Sorting Machine
FY	Fiscal Year
Focus Groups	Groups, composed of a broad cross section of postal management, formed by the Office of Automation Integration (OAI) to develop and enhance the corporate plan for automation activities. The first groups created the initial plan which was reviewed and enhanced upon by each later group in turn. The OAI then created a series of timelines and decision points from the focus group viewpoints that the PACs have since developed and adjusted further.

G

GMF	General Mail Facility

H

HQ	Headquarters

HR	Human Resources
HR PAC	Human Resources Program Area Committee
H-Record stop	Address Information System designation for a high density delivery (shopping center/high-rise office)

I

ID	Identification
IMHS	Integrated Mail Handling System
Indicia	Imprinted designations on mail pieces to denote payment of postage.

L

LDC	Labor Distribution Code
LMRI	Letter Mail Readability Index
LR	Labor Relations Department
LSM	Letter Sorting Machine

M

MAIL	Mailer Address Improvement Link
MAIS	Market Analysis Information System
META	Model for Evaluating Technology Alternatives
MK	Marketing Department
MLOCR	Multiline Optical Character Reader
MMAT	Managed Mail Analysis Test
MODS I &II	Management Operating Data System; I: for largest sites with electronic volume and workhour reporting system II: for smaller sites without electronic volume and workhours reporting system
MP	Mail Processing Department
MPFSM	Multi-position Flat Sorting Machine
MPLSM	Multi-position Letter Sorting Machine
MSC	Management Sectional Center
MTA	Modification Test Agreement
MTAC	Mailers Technical Advisory Committee

N

NCOA	National Change of Address
NDI	National Deliverability Index
NPV	Net Present Value

O

OAI	Office of Automation Integration
OBSS	One Bundle Sliding Shelf
OCR	Optical Character Reader
ODIS	Origin Destination Information System
OP PAC	Operations Program Area Committee
OSG	Operations Support Group
OSP	Operations Systems & Performance Department

P

PA	Philatelic Affairs
PAC	Program Area Committee
Part A	Procurement to upgrade Phase II SLOCR to MLOCR
Part B	Procurement for new MLOCRs
PCES	Postal Career Executive Service
PEDC	Postal Employee Development Center
PQ	Postal Quarter
PRC	Postal Rate Commission
Phase I	Procurement of Burroughs and Pitney Bowes SLOCRs and Bell & Howell BCSs
Phase II	Procurement of ElectroCom SLOCRs and BCSs

R

RC	Rates and Classification Department
RFP	Request for Proposal
ROI	Return on Investment
RPMG	Regional Postmaster General
RPW	Revenue Pieces & Weight
RVE	Remote Video Encoding

S

SAPMG	Senior Assistant Postmaster General
SIZ	Sequence Identifying ZIP
SLOCR	Single-line Optical Character Reader
SMC	Senior Management Committee
SP PAC	Services and Prices Program Area Committee
SPBS	Small Parcel & Bundle Sorter
SPLSM	Single-position Letter Sorting Machine
SQS	Systems Quality Sort
S-Record	Address information system code designating a street blockface
T	
TPAC	Technology Program Area Committee
TRC	Technology Resource Center
TRD	Technology Resource Department
U	
USPS	United States Postal Service
Z	
ZIP+4	Zoning Improvement Plan with four digit add-on

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