11/5/77 Released 12/14/76

DOCUMENT RESUME

00439 - [A0590648] (Restricted)

Problems of the New National Bulk Mail System. GGD-76-100; B-114874. December 10, 1976. 29 pp. + appendix (2 pp.).

Report to Rep. Charles H. Wilson, Chairman, House Committee on Post Office and Civil Service: Postal Facilities, Mail and Labor Management Subcommittee; by Elmer B. Staats, Comptroller General.

Issue Area: Facilities and Material Management: Building, Buying, or Leasing Federal Facilities and Equipment (706).
Contact: General Government Div.
Budget Function: Commerce and Transportation: Postal Service (402).
Organization Concerned: Postal Service.
Congressional Relevance: House Committee on Post Office and Civil Service: Postal Facilities, Mail and Labor Management Subcommittee.

The status of the Postal Service's bulk mail system was reviewed through site visits to the four operational bulk mail centers and the center still in the testing stage. The bulk mail system represents the Service's first attempt to mechanize a nationwide mail processing system. The estimated cost to construct and equip the system was $950 million, but the cost rose to $997 million, and completion was delayed one year. Findings/Conclusions: Major reasons for cost increases were: building and mechanization design changes made after contracts were awarded, and late delivery of government-furnished equipment to the contractors. Problems encountered in development of the system included: overestimation of the processing capacity of the system; underestimation of the volume of mail that could not be handled by the system; a high incidence of misdirected mail and parcel damage; and failure to meet delivery standards. It cannot be concluded at this time if the bulk mail system can provide enough savings to justify investment in the system. (RRS)

REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

Problems Of The New National Bulk Mail System

U.S. Postal Service

The Postal Service built a billion dollar bulk mail system to lower operating costs, improve the quality of service, and maintain its share of the parcel market.

The ability of the new system to achieve these monetary and mail service goals is uncertain because of lower productivity, mail damage, misdirected mail, and delayed delivery. Although the Postal Service is trying to correct these matters, it is not certain whether the system can provide enough savings to justify the investment.

GGD-76-100

DEC. 10, 1976

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-114874

The Honorable Charles H. Wilson
Chairman, Subcommittee on Postal Facilities,
Mail, and Labor Management
Committee on Post Office and
Civil Service
House of Representatives

Dear Mr. Chairman:

In your letter of May 23, 1975, you asked us to review the status of the Postal Service's bulk mail system.

At the conclusion of our work at each of the five bulk mail centers visited, we briefed the Subcommittee staff on the problems each center was experiencing. We also testified before your Subcommittee on the results of our work. This report elaborates on that testimony and points out that the bulk mail system's major problems will be difficult to solve and that some problems may prevent the system from achieving its original financial and customer service goals.

The Postmaster General commented that the Service has had some favorable results in correcting the system's problems. However, he believes it premature to evaluate the success of the Service's efforts to correct the problems or to evaluate the system's ultimate ability to reduce costs and improve service.

Sincerely yours,

Comptroller General
of the United States

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COMPTROLLER GENERAL'S REPORT
TO THE SUBCOMMITTEE ON POSTAL
FACILITIES, MAIL, AND LABOR
MANAGEMENT; COMMITTEE ON POST
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HOUSE OF REPRESENTATIVES

PROBLEMS OF THE NEW NATIONAL BULK MAIL SYSTEM U.S. Postal Service

D I G E S T

The U.S. Postal Service has invested about $1 billion in a new bulk mail system for processing parcels, circulars, advertisements, magazines, and other nonletter mail.

In the past, parcel processing by the Service was characterized by high cost, slow delivery, and damage. As a consequence, parcel business was being lost to private companies. With the expectation of reversing these unfavorable aspects, and also maintaining the Service's share of the parcel market, the National Bulk Mail System was designed, built, and put into operation.

The system represents the Service's first attempt to mechanize a nationwide mail processing system and consists primarily of 21 new bulk mail centers. The estimated cost to construct and equip the new system was $950 million; but the cost rose $47 million over the first estimate to $997 million and completion of the system was delayed 1 year, from January 1975 to January 1976.

Chief reasons for increased costs and schedule delays:

--Building and mechanization design changes made after contract awards. (See p. 4.)

--Late delivery of Government-furnished equipment to general contractors.

GAO visited 5 of the 21 centers from June 19 to October 17, 1975, a period when most of them were becoming operational. Each had difficult mail-processing problems which,

if not solved, would probably result in the system providing neither the savings in costs nor the quality of service expected.

Problems working against realization of these goals:

--Overestimation of the capacity of the service to be provided by the centers' process. (See p. 10.)

--Significant underestimation of volume of mail that could not be processed by machines. (See p. 13.)

--High rates of misdirected mail. (See p. 14.)

--High incidence of parcel damage. (See p. 17.)

--Inability to meet delivery standards. (See p. 20.)

Although the Service is trying to correct these problems, it is too early to tell whether the system can provide enough savings to justify the investment in the new system. (See pp. 14 and 19.)

AGENCY COMMENTS

In his October 12, 1976, letter, the Postmaster General said that since the period covered by this report,

--Productivity and efficiency rates of the new bulk mail centers had increased steadily.

--Steps had been taken to reduce rate of misdirected and missent mail.

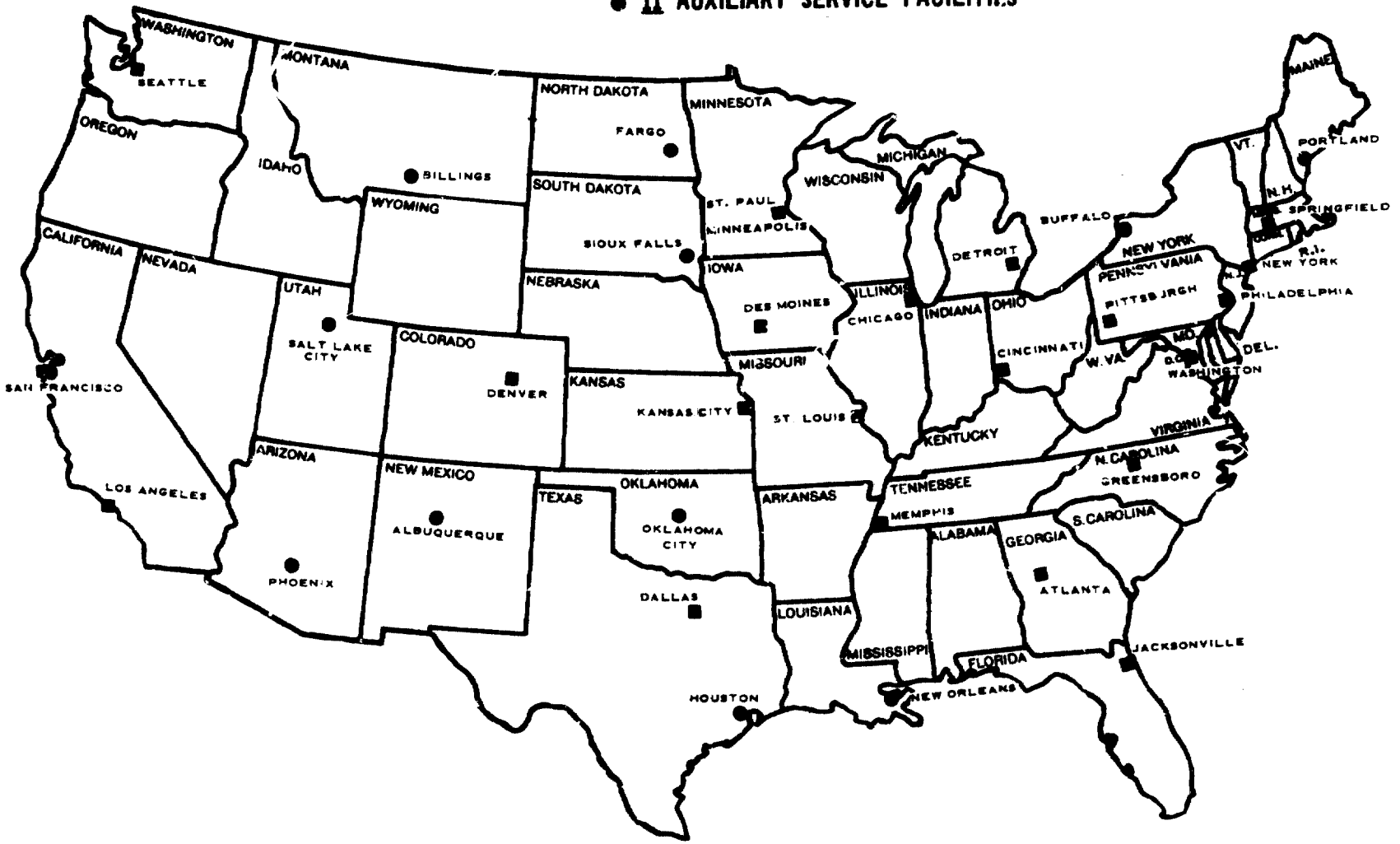
--Damage rates had decreased.

In addition, the volume of mail that cannot be processed by machines is expected to drop

as operating experience is gained and equipment difficulties are remedied.

The Postmaster General said that it was premature to assess the ultimate success of the Service's efforts to correct the system's problems or to evaluate the system's ability to reduce costs and improve service.

NETWORK CONFIGURATION: ■ 21 BULK MAIL CENTERS
● 11 AUXILIARY SERVICE FACILITIES



CHAPTER 1

INTRODUCTION

The U.S. Postal Service has invested $1 billion in the National Bulk Mail System, a new nationwide system for processing bulk mail. Bulk mail--parcels, circulars, advertisements, magazines, and other nonletter mail--accounts for about one-third of all mail volume.

The Postmaster General described the system as ambitious, innovative, and risky and said it was built to halt further loss of the Service's share of the parcel post market. The downward trend in the Service's share of the parcel post volume--from 536 million packages in 1971 to 400 million in 1975--is attributable to competitors offering faster service, handling parcels with less damage and charging lower rates.

We were asked to visit five bulk mail centers--four operational and one still in the testing phase--and report on their status to assist the House Subcommittee on Postal Facilities, Mail, and Labor Management; Committee on Post Office and Civil Service, in its planned hearings on the system. Information was obtained primarily through interviews with Postal Service, Army Corps of Engineers, and labor union representatives and from documents provided by the Service and the Corps.

FIRST NEW NATIONWIDE SYSTEM

One of the principal observations of the President's Commission on Postal Organization--the study group that recommended creating an independent Postal Service--was that the Post Office Department suffered from a "mechanization gap," a failure to take advantage of available technology to improve productivity.

The bulk mail system represents the Service's first attempt to develop a mechanized nationwide mail-processing system. The heart of the system is 21 new bulk mail centers located throughout the country. (See map.)

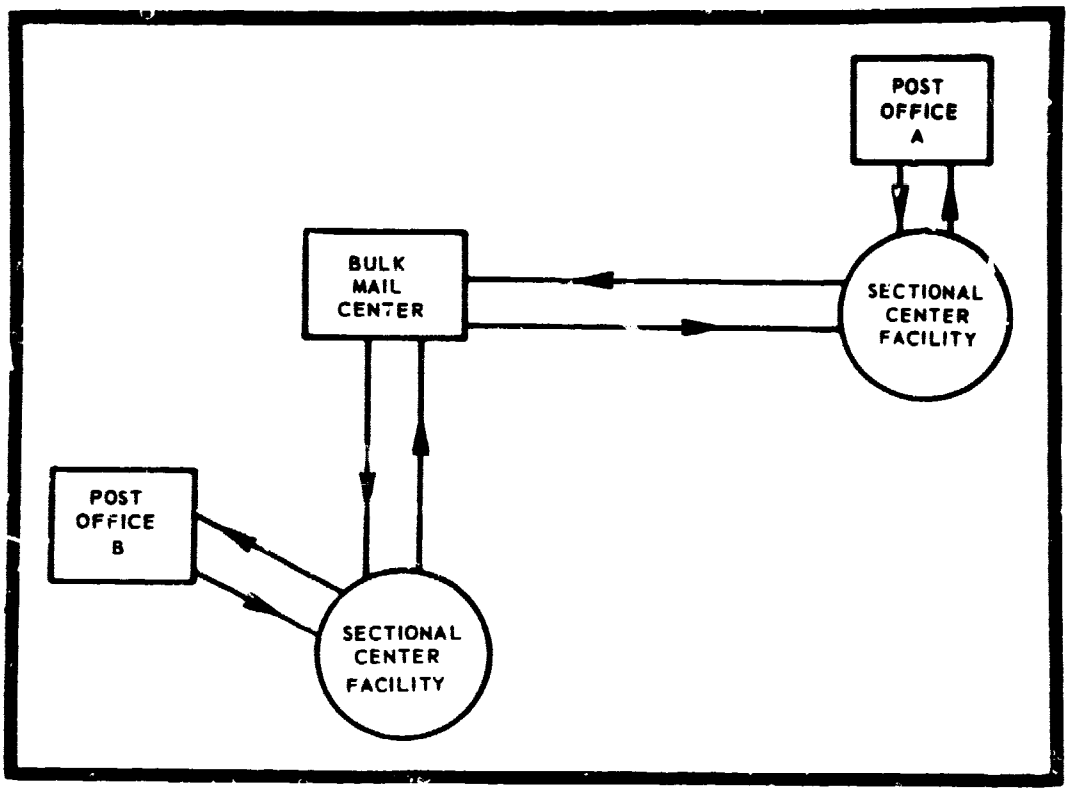
The design for 19 of the 21 centers was based on a modular system to facilitate development of standardized buildings and equipment. These centers were grouped into two module sizes, distinguished primarily by their mail-processing capacity. Fourteen centers are small modules designed to handle up to 350,000 parcels per day, and five centers

are medium modules designed to handle over 350,000 parcels per day. The New York and Chicago centers, larger in both size and processing capacity than the other 19 centers, were designed before approval of the bulk mail system.

Essentially, each center is a distribution point where bulk mail originating or coming into the area is processed on mechanized sorting equipment. The mail is separated for transport to another center or to the appropriate sectional center facility 1/ or large post office if destined for a location within the center's service area.

The following diagram illustrates the general movement of bulk mail within a service area. As shown, bulk mail is transported from individual post offices to a sectional center facility and then to a bulk mail center. At the center, the mail is sorted and transported to the appropriate post offices via a sectional center facility.

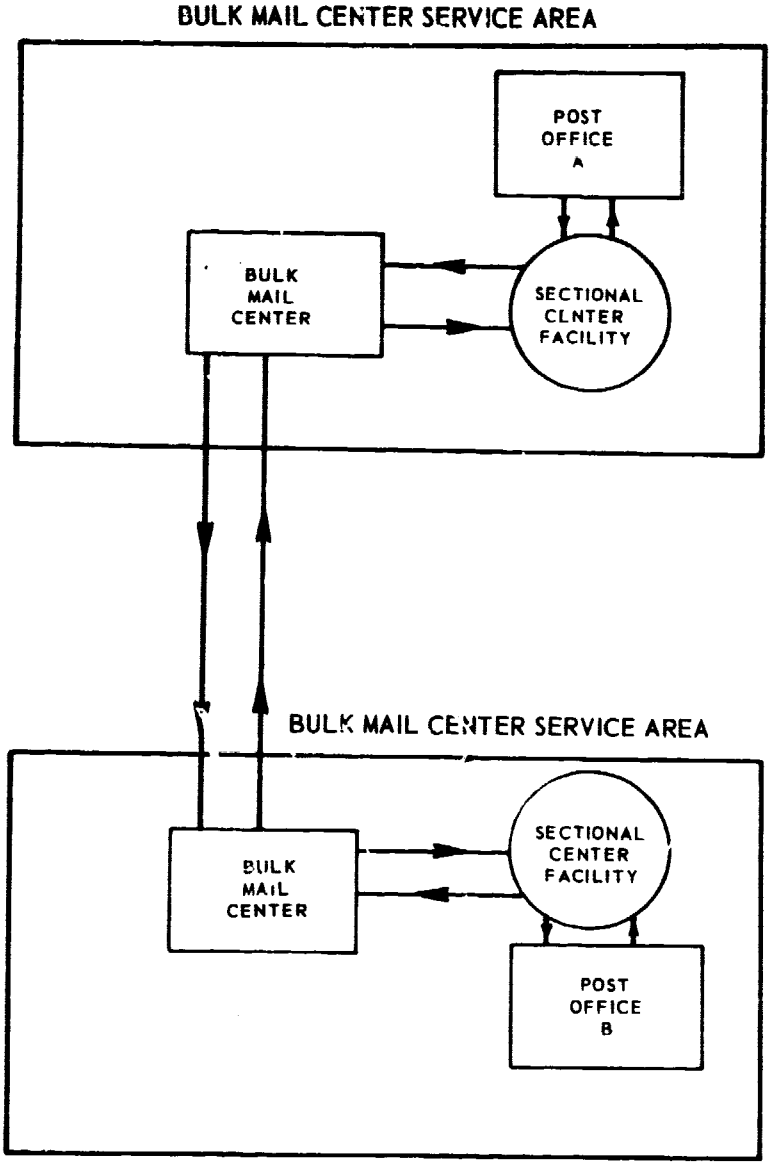
Mail Flow Within a Bulk Mail Center Service Area



1/A central facility for distributing all classes of mail to and from assigned local post offices.

The following diagram illustrates the general movement of bulk mail between bulk mail center service areas. As shown, mail flows from individual post offices to a bulk mail center via the appropriate sectional center facility. At the bulk mail center, mail is sorted and transported to the bulk mail center within whose service area the recipient post office is located. It is then sent to the appropriate sectional center facility for distribution to the recipient post office.

Mail Flow Between Bulk Mail Center Service Areas



CHAPTER 2

IMPLEMENTATION OF NATIONAL BULK MAIL SYSTEM WAS DELAYED AND COSTS INCREASED

The Postal Service experienced cost increases and schedule delays in constructing and equipping the bulk mail system. The two primary reasons for cost growth and schedule delays were building and mechanization design changes and late delivery of Government-furnished equipment to the general contractors.

COST INCREASES

The Service estimated in early 1971 that it would cost $950 million to construct and equip the bulk mail system. This estimate was later revised to $997.228 million. According to a Service engineering official, the major reasons for cost increases in the system were

--building and mechanization design changes made after contracts were awarded and

--late delivery of Government-furnished equipment to contractors.

A comparison of cost estimates follows.

Estimated Cost to Construct and Equip the National Bulk Mail System

	Original budget	12-31-75 budget	Difference ((-) under (+) over original budget)
	(000 omitted)		
Bulk mail center construction:			
Design	$ 39,810	$ 52,845	$+ 13,035
Site	41,950	32,941	-9,009
Foundation	21,320	25,266	+3,946
Steel and enclosure	83,900	53,032	-30,868
General contract	508,405	476,594	-31,811
Mechanization	192,000	245,428	+53,572
Modifications and claims	0	128,277	+128,277
Contingencies	0	50,059	+50,059
New York center modifications	0	15,000	+15,000
	887,385	972,442	+85,057
Auxiliary service facility construction	24,000	19,629	-4,371
Sectional center facility construction	38,615	5,157	-33,458
Total	$950,000	$997,228	$+ 47,228

In a previous report to the Congress (B-114874, dated Nov. 1, 1974), we pointed out that the Service's bulk mail system cost estimates do not include certain research and development costs, Corps support costs, and system startup costs. Including these costs increases the system estimated cost to about $1.15 billion. The following table summarizes the major components of this cost estimate.

Estimate of National Bulk Mail System Cost

	Amount (000 omitted)
Original estimate for design and construction	$ 950,000
Additional authorization for design and construction	47,228
Research and development	46,741
Corps of Engineers support costs	37,000
Startup costs	71,830
Total	$1,152,799

Although contract claims and modifications 1/ do not specifically appear in the original bulk mail system budget, funding for these items, according to the Service, was included in other budget categories. (See p. 4.) As of December 31, 1975, the claims and modifications approved for payment totaled $95.7 million. The following table summarizes the approved contract modifications and claims as of December 31, 1975, for the five centers.

1/Modifications are changes to the scope of work, often resulting in an increase in the price of a contract. Claims are typically submitted by contractors to recover costs incurred which they consider to be beyond their control, such as Government actions or strikes.

Approved Contract Claims and Modifications

Bulk mail center	Amount
	(000 omitted)
New York	$24,699
Chicago	7,742
Atlanta	4,416
Greensboro	3,364
Washington	7,455
Total	$47,676

Additional costs are expected for the bulk mail system because of pending and potential contract claims and modifications. As of December 31, 1975, pending contract claims and modifications totaled $23.1 million, and potential claims and modifications were estimated by the Service to be as much as $43.4 million for the system.

The following table summarizes the possible cost increases as of December 31, 1975.

Pending and Potential Claims and Modifications

Bulk mail center	Amount of pending claims and modifications	Service's estimated potential claims and modifications	Total
	(000 omitted)		
New York	$5,937	$11,710	$17,647
Chicago	2,652	5,209	7,861
Atlanta	112	10,005	10,117
Greensboro	62	1,487	1,549
Washington	1,022	0	1,022
Total	$9,785	$28,411	$38,196

The Service expects the total budget of $997.2 million to cover all contract claims and modifications.

DELAYS IN IMPLEMENTATION

The Service placed a high priority on the timely completion of the bulk mail system because of its belief that this system would result in substantial operating savings. Originally, the construction program was expected to be completed by January 1975, but the actual completion date was delayed 12 months to January 1976. Design changes made to buildings and mechanization after contractors began work caused much of the delay.

The Corps, through agreements with the Service, was responsible for awarding and monitoring construction and mechanization contracts for the system.

In a procurement based on detailed specifications, such as the bulk mail system, finalizing designs before contract award tend to prevent cost growth and schedule delays.

A Corps official told us the design for equipment was not finalized for most items before contract awards. The Service had to forward contract supplements to the Corps. Most of these supplements were incorporated in the bid solicitations before contract award, but many were not. Design packages had an average of 12 supplements, including an average of 4 supplements after contract award.

Each of the five centers experienced delays in the general construction and equipment installation program. The delays ranged from 4 months at the Greensboro center to 13 months at the Chicago center.

Corps and Service officials consistently cited design changes and late delivery of Government-furnished equipment as the prime reasons for the delay in the system. The following table summarizes the delays in completion dates.

Bulk Mail Center Construction Delays

Bulk mail center	Original date to complete general construction	Date general construction completed	Schedule delays (months)
New York	June 1973	Jan. 1974	7
Chicago	Jan. 1974	Feb. 1975	13
Atlanta	Nov. 1974	Oct. 1975	11
Greensboro	Oct. 1974	Feb. 1975	4
Washington	June 1974	Mar. 1975	9

The other 16 centers also experienced delays ranging from 2 to 12 months.

CHAPTER 3

ABILITY OF THE BULK MAIL SYSTEM TO ACHIEVE PRODUCTIVITY, COST SAVINGS, AND CUSTOMER SERVICE GOALS IS UNCERTAIN

The problems encountered in the development and implementation of the bulk mail system make it uncertain whether the Service will be able to realize its original goals of cost savings, increased productivity, and improved customer service. Some serious problems are not likely to be solved. Other problems can be corrected but added costs will be incurred.

SAVINGS SUBSTANTIALLY REDUCED

The expected benefits of the system were initially detailed in two consultant studies--one before the Service decided to construct the system and one after.

A 1970 study by a consulting firm before the system's approval showed that a national bulk mail system would save about $300 million annually. These savings were based on a comparison of estimated costs that would have been incurred in 1969 had a system been in effect with actual costs incurred in 1969. A June 1972 consultant's study (after bulk mail system approval) concluded that the system would increase revenues and reduce costs by approximately $500 million annually by 1984. The $500 million estimate was based on a doubling of parcel post volume, a corresponding increase in parcel post revenues of $400 million, and a reduction in bulk mail costs of $100 million.

In an earlier report, we pointed out that these estimates were uncertain and that the key to the system's success was in reversing the downward trend in the Service's share of the parcel market. The Service expected to do this by providing quicker and more consistent delivery with less parcel damage.

The estimated savings to be realized from the system were lowered to $209 million annually on March 4, 1975, and to $149 million annually on July 1, 1975. On October 7, 1975, the Assistant Postmaster General, Bulk Mail Processing Department, stated that savings from the system should exceed $138 million annually, if parcel post volumes do not fall below 400 million pieces.

Service officials estimate that parcel post volume of 300 million pieces annually is needed for the system to break even and expect the parcel post volume for 1976 to be about 330 million pieces.

REDUCED CAPACITIES OF BULK MAIL CENTERS

The expected processing capacity at the centers had decreased from original projections.

--Estimated daily normal processing capacity decreases ranged from 6 percent to 34 percent.

--Estimated daily peak processing capacity decreases ranged from 23 percent to 37 percent.

The following tables detail the reduction in estimated normal and peak parcel processing capacities at each of the centers included in our review. Normal capacity is the level at which the centers can operate for extended periods without adverse effects on the plant and equipment. Peak capacity is the level at which centers can operate for limited periods, such as the Christmas mailing season.

Normal Parcel Processing Capacity Per Day

Bulk mail center	Original estimate	Current estimate	Decrease	Decrease (percent)
New York	459,264	432,432	26,832	6
Chicago	836,250	578,359	257,891	31
Atlanta	306,000	200,727	105,273	34
Greensboro	306,000	200,779	105,221	34
Washington	306,000	210,240	95,760	31

Peak Parcel
Processing Capacity Per Day

Bulk mail center	Original estimate	Current estimate	Decrease	Decrease (percent)
New York	688,896	529,200	159,696	23
Chicago	1,003,192	722,934	280,258	28
Atlanta	408,000	255,720	152,280	37
Greensboro	408,000	255,787	152,213	37
Washington	408,000	288,000	120,000	29

Service officials told us that the other centers will experience similar reductions in estimated capacity. These reductions are primarily attributable to slower parcel induction rates and reduced hours of operation.

Parcels in the bulk mail system are sorted mechanically once an operator enters a parcel's destination ZIP code into the computer through a keyboard at an induction unit. Operators were unable to enter as many parcels per hour into the system as had been expected. The decreases ranged from 16 to 25 percent as detailed below.

Decrease in Estimated Parcel
Induction Rate Per Hour

Bulk mail center	Original estimate	Current estimate	Decrease	Decrease (percent)
New York	1,794	1,512	282	16
Chicago	1,700	1,273	427	25
Atlanta	1,700	1,273	427	25
Greensboro	1,700	1,273	427	25
Washington	1,700	1,273	427	25

To partially compensate for the decreases in processing capacity, the Service purchased 30 additional parcel induction units. Four of the units were installed in the New York center at a cost of $436,250. The remaining 26 units were purchased for the eight small module centers to provide adequate capacity to accommodate expected peak period volumes. The Service estimates the cost of the 26 additional units for the small module centers to be $740,000, including installation.

Increased maintenance requirements and the need to provide for employee rest and wash-up periods have reduced the number of hours each center can operate. The following table details the decrease in normal and peak processing hours at four operational centers.

Decrease in Estimated Normal and Maximum Processing Hours Available Per Day

Bulk mail center	Decrease in estimated normal processing hours per day (percent)	Decrease in estimated maximum processing hours per day (percent)
New York	11	27
Chicago	4	25
Atlanta	3	7
Washington	3	-

According to Service officials, similar reductions will be made at the other centers in the system.

Unused capacity exists

Despite the reduction in estimated processing capability, each center was expected to operate well below its normal capacity. The centers shown in the following table would operate from about 14 to 43 percent below normal capacity, based on expected volume estimates furnished by the Service. Obviously, if expected volume is far below the normal capacity, the Service will have to spread fixed operating costs over fewer parcels.

Comparison of Expected Volume and Normal Processing Capacity

Bulk mail center	Estimated normal daily capacity	Expected daily parcel volume	Unused normal capacity	Unused normal capacity (percent)
New York	432,432	370,300	62,132	14.4
Chicago	578,359	328,216	250,143	43.3
Atlanta	200,727	113,468	87,259	43.5
Greensboro	200,779	117,798	82,981	41.3
Washington	210,240	144,394	65,846	31.3

After the New York center was completed, the Service realized that it would be able to process only about 72 percent of the estimated volume. The Meadows facility in Kearny, New Jersey, was used from May 1972 to March 1976 to process bulk mail for northern New Jersey. Because volume has been lower than anticipated, the Service decided that the New York center would be able to handle the mail that was being processed at the Meadows facility. On March 27, 1976, the center began processing all of the bulk mail in its service area. However, if bulk mail increases to the levels originally expected, it is doubtful that the center will be able to process it.

MANUAL PROCESSING OF BULK MAIL

The volume of nonmachinable mail--mail that cannot be processed by existing bulk mail equipment--at the four operational centers visited was greater than the Service anticipated, and, as a consequence, the manual sorting operation was larger and more costly than expected.

The following table shows the approximate average monthly volume of nonmachinable parcels processed and the volume expected. The Service compiled the number of nonmachinable parcels processed at the four operational centers from October 1975 through January 1976.

Bulk mail center	Number of nonmachinable parcels	Expected monthly volume of nonmachinable parcels (note a)
	(000 omitted)	(000 omitted)
Chicago		182
Oct.	(b)	
Nov.	400	
Dec.	600	
Jan.	450	
Greensboro		81
Oct.	210	
Nov.	240	
Dec.	270	
Jan.	210	
New York		28
Oct.	520	
Nov.	580	
Dec.	570	
Jan.	470	
Washington		121
Oct.	270	
Nov.	380	
Dec.	390	
Jan.	240	

a/Reflects expectations of centers' management before centers became operational.

b/Information not available.

The Service is planning to install equipment in the small and medium centers to process nonmachinable mail. This system is comprised of a series of gravity rollers and will be installed in centers with relatively low volumes of nonmachinable mail.

The Service is also planning the development of an automated sorting system for centers that process high volumes of nonmachinable mail. Service officials expect this system to be installed in late 1978.

As part of its efforts to reduce the amount of damaged mail, the Service announced that book shipments weighing more than 25 pounds would be processed manually. This obviously will increase the volume of mail handled manually and increase the cost of operating the bulk mail system.

BULK MAIL SENT TO WRONG DESTINATION

The four operational centers experienced problems with excessive rates of misdirected and/or missent mail.

Misdirected mail is mail sent to the wrong destination. For example, a parcel addressed to New York is being sorted at the Chicago center and an induction station operator punches the wrong sorting keys sending the parcel to the Greensboro center. According to a Service official, the acceptable maximum rate for misdirected mail is 1 percent.

The following table shows the approximate average monthly misdirected mail rates for the four operational centers. The Service compiled the misdirected mail rates for October 1975 through January 1976.

Monthly Misdirected Mail Rates

Bulk mail center	Misdirected rate (percent)
Chicago:	
Oct.	11
Nov.	7
Dec.	6
Jan.	3
Greensboro:	
Oct.	4
Nov.	3
Dec.	2
Jan.	1
New York:	
Oct.	(a)
Nov.	4
Dec.	5
Jan.	4
Washington:	
Oct.	5
Nov.	4
Dec.	4
Jan.	3

a/Not available.

Before our visits, the Chicago center reported periodic misdirected mail rates ranging from 9.4 percent to 29.8 percent of the total mail processed for about 3-1/2 months. These figures were derived through random sample audits. The center's quality control official told us that when sample audits disclosed excessive numbers of misdirected parcels, they were not included in the misdirected mail statistics. Therefore, the above figures may understate the actual rates.

Unlike misdirected mail, missent mail does not leave a center. Rather, missent mail is sent to the missent or malfunction chutes in the center because of such things as operator error, equipment malfunction, missing ZIP codes, and use of invalid ZIP codes by mailers. Service officials

said that missent mail results in some delay and increases costs because it must be reentered in the system and be reprocessed. The Service's acceptable maximum rate for missent mail is 5 percent.

The following table shows that each of the four operational centers have experienced higher missent mail rates than the acceptable maximum. The Service compiled parcel and sack missent mail rates for October 1975 through January 1976.

Monthly Missent Mail Rates

Bulk mail center	Primary parcel-sorting operation (note a)	Secondary parcel-sorting operation (note b)	Sack-sorting operation
	(percent)		
Chicago:			
Oct.	10	11	12
Nov.	10	10	14
Dec.	9	9	12
Jan.	9	6	13
Greensboro:			
Oct.	8	5	2
Nov.	4	5	2
Dec.	5	4	3
Jan.	5	3	3
New York:			
Oct.	(c)	(c)	(c)
Nov.	3	2	7
Dec.	2	2	8
Jan.	2	2	7
Washington:			
Oct.	24	11	22
Nov.	20	11	17
Dec.	10	9	8
Jan.	9	8	9

a/Sorting of mail to the appropriate bulk mail center.

b/Sorting of mail to the appropriate sectional center facility.

c/Information not available.

HIGH RATES OF PARCEL DAMAGE

In testimony before the House Subcommittee on Postal Facilities, Mail, and Labor Management in March 1976, the Service acknowledged a problem with damaged mail in the bulk mail system.

We visited the bulk mail centers before the 1975 Christmas season and did not find damaged mail of the massive proportions that apparently occurred during and immediately after the Christmas heavy volume period. Nevertheless, we did find that damage during periods of normal mail volume was a serious problem that threatens to prevent the system from achieving its goals. We observed

--conveyor chutes dropping parcels from heights in excess of 2 feet (the maximum parcel drop according to the Service's design criteria was not to exceed 1 foot),

--parcels caught between conveyor rollers,

--parcels run over by tow conveyor system containers,

--small parcels damaged by heavier parcels at the sack shake-out machines and induction unit slides, and

--damaged parcels processed, rather than removed for repair to avoid further damage.

Since the bulk mail system became operational, the Service has experienced large amounts of "loose-in-the-mail" parcels--parcels that have broken open and the contents scattered. The parcel's contents are separated from the carton and the address, and the Service cannot identify the intended recipient of the goods being mailed.

The following table shows the approximate average monthly damaged mail rates for the centers reviewed. The Service compiled the damage rates for October 1975 through January 1976. The Service's goal is to keep damage below 0.5 percent of the mail processed.

Bulk Mail Damage Rates

Bulk mail center	Damage (note a)
	(percent)
Chicago:	
Oct:	.77
Nov.	.94
Dec.	.92
Jan.	.87
Greensboro:	
Oct.	.50
Nov.	.59
Dec.	.50
Jan.	.56
New York:	
Oct.	.75
Nov.	.83
Dec.	.85
Jan.	.94
Washington:	
Oct.	1.86
Nov.	1.87
Dec.	1.51
Jan.	1.93

a/Rates shown for New York, Chicago, and Washington reflect parcels completing the rewrap cycle. Parcels receiving minor repair in areas other than the rewrap section and most undeliverable parcels (loose-in-the-mail parcels) are not included. Greensboro center officials stated that their statistics include all damage except minor repairs performed outside the rewrap section.

Center officials attributed the problem of damaged parcels primarily to improper packaging by the sender and acceptance of parcels by local post offices that do not meet the Service's packaging standards.

While these factors undoubtedly contribute to the damage problem, we believe much of the damage is caused by the equipment in the centers. Center officials said that the loading and unloading of packages in containers, lack of adequate padding on equipment, and improper loading of vans were also reasons for parcel damage.

A recent Postal Inspection Service report noted that broken parcels are most frequently the result of accumulated damage within the center. It went on to say that

> "If a parcel had only one drop point, only one point at which parcels become crowded, stacked and changed direction by 90 degrees, almost every parcel would be distributed undamaged; however, such is not the case. After a parcel experiences the shock of unloading from a BMC [bulk mail center] container, that same parcel will be subjected to nine or more drops varying from 12" to 36" or potentially more."

The Service has been studying the problem of damage caused by equipment. Equipment modifications have been made and continue to be made to reduce this type of damage. Two of the more extensive redesign efforts now being made are the redesign of the container unloader and the sack shake-out units. Service officials believe the modifications will reduce the damage that occurs when containers and sacks are unloaded. They said the new container unloader is now being tested at the New York center with favorable results.

TRANSPORTATION DEADLINES NOT MET

One of the goals of the bulk mail system is to provide faster delivery service. Standards have been developed whereby mail is expected to be delivered within a certain period of time depending on the distance traveled.

To meet the delivery standards, the following transportation guidelines were established:

--All outgoing vans should be dispatched within 48 hours.

--All incoming vans should be unloaded within 24 hours.

Review of transportation records at the Chicago, Greensboro, and Washington centers showed that the transportation standards were not always being met. One center failed to

--dispatch almost 8 percent of the outgoing vans within 48 hours during a period of about 1 month and

--unload almost 8 percent of the incoming vans within 24 hours during a period of about 2 months.

A Postal Inspection Service audit report on the New York center stated that vans were frequently not dispatched within reasonable time limits. Their analysis of vans dispatched from January 14 to 19, 1975, showed 33 instances where more than 72 hours had elapsed from the beginning of the loading process to the dispatching of the van.

Service officials said compliance with transportation standards often resulted in dispatching vans which were only partially loaded. Dispatching partially loaded vans increases the risk of parcel damage because loads are more apt to shift in the van. Transporting partially loaded vans has become an even more serious problem because of changes in railroad rates. We were told that railroads now charge full rates for each van transported instead of their former policy of charging reduced rates for partially loaded vans.

DELIVERY STANDARDS NOT MET

In congressional testimony on March 25, 1976, a Service official said that the bulk mail system was not meeting Service delivery standards. These standards vary with the distance a parcel must travel--they require delivery of 95 percent of the mail volume within a center's service area in 2 days and range upward to a maximum of 7 days for coast-to-coast delivery.

Delivery performance reports from March 27 through April 23, 1976, showed that none of the five centers were able to meet the 2-day delivery standard.

During the same period, the coast-to-coast delivery standard of a 7-day maximum was not met. For example, it took 11 and 15 days for 95 percent of the parcel post volume from the New York center to be delivered in the Seattle and San Francisco areas, respectively. From the Washington center, it took over 15 days for 95 percent of the mail to be delivered in the Seattle area and 15 days to the San Francisco area.

The following table shows the delivery performance of the centers for March 27 through April 23, 1976.

Bulk Mail Delivery Performance

(March 27 through April 23, 1976)

Originating center's service area	Destinating center's service area	System's service standard for 95% delivery (days)	Actual percentage of mail delivered in service standard time (percent)	No. of days to deliver 95% of mail (days)
New York	New York	2	61	8
	Springfield	3	86	7
	Pittsburgh	3	66	8
	Cincinnati	4	25	15+
	Detroit	4	25	12
	Chicago	4	32	14
	Denver	6	36	10
	San Francisco	7	48	15
	Seattle	7	57	11
Chicago	Chicago	2	58	6
	Cincinnati	3	34	9
	Detroit	3	16	12
	Springfield	4	4	10
	New York	4	20	15
	Pittsburgh	4	44	9
	Denver	5	52	13
	San Francisco	6	50	15
	Seattle	6	14	10
Washington	Washington	2	81	5
	Springfield	3	59	7
	New York	3	31	9
	Pittsburgh	3	53	7
	Cincinnati	4	50	9
	Detroit	4	2	10
	Chicago	4	26	9
	Denver	6	37	13
	San Francisco	7	51	15
	Seattle	7	16	15+
Greensboro	Greensboro	2	84	4
	Pittsburgh	3	46	4
	Cincinnati	3	59	8
	Springfield	4	100	4
	New York	4	30	10
	Detroit	4	52	9
	Chicago	4	59	6
	Denver	5	80	10
	San Francisco	7	23	13
	Seattle	7	5	10
Atlanta	Atlanta	2	74	4
	Cincinnati	3	25	6
	Springfield	4	50	7
	New York	4	26	13
	Pittsburgh	4	70	8
	Detroit	4	41	8
	Chicago	4	57	7
	Denver	5	76	10
	San Francisco	7	90	8
	Seattle	7	20	12

CHAPTER 4

SAFETY: A CONTINUING CONCERN

Service employees working at the centers are having more accidents and injuries than employees working in other postal facilities. In addition, center employees were involved in comparatively more lost-workday injuries (employees are injured and unable to report for duty) than other employees. The following table compares the accidents and injuries at centers with Service-wide averages.

Comparative Accident and Injury Statistics

(from June 21, 1975, to March 26, 1976)

	Service-wide averages	Bulk mail centers
Accidents (per 100 employees)	5.8	14.4
Total injuries (per 100 employees)	4.7	14.1
Lost-workday injuries (per 100 employees)	3.7	11.2

As indicated, the centers have had high rates of employee accidents and injuries. The Service has incurred and will continue to incur costs to correct the unsafe conditions in the centers.

MANY INJURIES AT CENTERS

The following table shows the number of industrial accidents and lost-workday injuries at the centers from June 21, 1975, through March 26, 1976. The New York center was the only one that was fully operational during this entire period. The accident rates at the other centers may increase now that they are fully operational.

Bulk Mail Center Accident Record
For The Period June 21, 1975,
Through March 26, 1976

Bulk mail center	Number of industrial accidents	Number of lost-workday industrial injuries	Lost-workday injuries (note a) (per 100 employees)
Atlanta	59	41	8.7
Chicago	307	183	13.4
Greensboro	23	23	4.4
New York	681	607	14.9
Washington	100	100	16.0

a/The Service-wide average for lost-workday injuries per 100 employees is 3.7 for the same period.

Most of the safety officials at the four operational centers believed their accident and injury rates were too high. Safety officials at the Chicago, Washington, and Greensboro centers attributed the high accident and injury rates partly to design and construction deficiencies, which resulted in unsafe conditions and hazardous working areas. Modifications were being made to correct the deficiencies. Two safety officials cited inadequate management support of, and supervisory participation in, the center's safety programs as contributing factors.

Local union officials also attributed the high accident and injury rates to unsafe and hazardous conditions and to inadequate management support of the safety program.

Following is a list of unsafe conditions that was compiled from information provided by Service officials and from GAO observations.

Unsafe conditions	New York	Chicago	Atlanta	Greensboro	Washington
Inadequate number of walkways for access to the mechanized equipment	X	X	X	X	X
Inadequate protection under conveyors to prevent parcels from falling onto work areas	X	X	X	X	X
Low overhead obstructions unpadded	X	X	X	X	X
Inadequate number of handrails on equipment		X	X	X	
Sharp edges on tow conveyor containers		X		X	X
Safety and exit signs missing			X	X	X
Exit aisles blocked by tow conveyor containers	X	X		X	X
Fire protection deficiencies	X	X			X
Compressed gas cylinders unsecured	X	X		X	

MEDICAL CARE NOT ALWAYS AVAILABLE

Several of the union officials interviewed were dissatisfied with center management because of the lack of full nursing coverage.

Only one of the centers reviewed had nursing staff coverage for all operating tours; the other four centers only had partial coverage. At one center a nurse was present less than half of the work hours. Several safety officials said a nurse

should be present during all working hours.

Service officials recently informed us that nursing coverage has been increased to the following levels.

Bulk mail centers	Nursing coverage
New York	4 nurses and 1 doctor
Chicago	2 nurses and 1 relief nurse
Atlanta	1 nurse
Greensboro	2 nurses
Washington	2 nurses

Service headquarters officials believe nursing coverage is adequate at this time.

LIGHT-DUTY WORK AREAS NOT AVAILABLE

None of the five centers had established light-duty work areas for employees. According to many of the union officials interviewed, the light-duty work areas are necessary and should be established for employees returning to work after illness or injury.

Service officials said the centers would establish light-duty work areas when local union negotiations were completed. These negotiations were to begin after completion of the national agreement between the Service and the unions.

CHAPTER 5

CONCLUSIONS AND AGENCY COMMENTS

CONCLUSIONS

The lower productivity, unused capacity, and large volumes of nonmachinable mail will adversely affect the cost savings the Service expected to realize from the bulk mail system. It is, however, too early to tell whether operational problems will prevent the system from providing enough savings to justify the investment.

The ability of the system to improve service is unproven. At the time of our visits, the bulk mail centers had

--high rates of misdirected and missent mail,

--high rates of mail damage, and

--not been able to consistently meet transportation deadlines established to insure that bulk mail delivery standards would be met.

Damage, misdirected mail, and delayed delivery are the three key problems facing the bulk mail system. The Service's ability to make substantial improvements in these areas will largely determine whether the system will be a success or an expensive failure.

AGENCY COMMENTS

In a letter dated October 12, 1976 (see app. I), the Postmaster General acknowledged that the bulk mail system had encountered the problems discussed in this report. He said the cost increases and schedule delays had not been unreasonable for a project of this size and complexity. The Postmaster General also said that since the period covered by this report,

--Productivity and efficiency rates had steadily increased.

--Measures had been taken to reduce the misdirected and missent mail rates.

--Bulk mail damage rates had been greatly reduced.

He indicated that the Service expects the volume of nonmachinable mail to drop as operating experience is gained and equipment difficulties are remedied. The Postmaster General said it was premature to assess the ultimate success of the Service's efforts to correct problems or to evaluate the system's ability to reduce costs and improve service.

With respect to the high rate of accidents at the bulk mail centers, the Postmaster General said that the rate at three of the five centers had been reduced and is now close to the Service-wide rate and attention was being given to reduce the accident rate at the remaining centers.

CHAPTER 6

SCOPE OF REVIEW

We were asked to visit five bulk mail centers--four operational and one still in the testing phase--and report on their operational status to assist the House Subcommittee on Postal Facilities, Mail, and Labor Management in its planned hearings on the system. The Subcommittee staff was briefed on our findings at each center and testimony was presented at the National Bulk Mail System hearings in March 1976.

The review was made at Postal Service Headquarters in Washington, D.C. From June to October 1975, we visited five bulk mail centers in New York, Chicago, Atlanta, Greensboro, and Washington. Information was gathered on construction, mechanization, schedule delays, cost increases, labor-management considerations, and operational performance. We discussed bulk mail center operations and problems with Service officials, safety problems with Service officials and local union representatives, and construction and mechanization problems with Army Corps of Engineers officials.

THE POSTMASTER GENERAL
Washington, DC 20260

October 12, 1976

Mr. Victor L. Lowe
Director, General Government
Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

This responds to your August 18, 1976 letter which requested comments on your proposed report to the Chairman, House Subcommittee on Postal Facilities, Mail, and Labor Management regarding your review of the major problems facing the National Bulk Mail System (NBMS).

The report reviews the operational status of five Bulk Mail Centers (BMCs) during June-October 1975, the period of heaviest start-up activities for the BMCs. It finds that these BMCs were experiencing high rates of misdirected and missent mail, high rates of parcel damage, inability to meet delivery standards, and higher nonmachinable volumes and lower processing capacity than originally estimated. The report says lower productivity, unused capacity and large volumes of nonmachinable mail will affect the cost savings realized from the system and questions whether the system can improve service. It also comments on safety factors at the BMCs and on cost increases and delays in the system's implementation.

We have provided detailed comments and additional information on specific items in the report to members of your staff. In June-October 1975 the BMCs were experiencing the problems the report discusses. For the most part, these problems reflect the start-up of a new system of great magnitude and complexity. Since the period covered by the report, measures have been taken at the BMCs which will reduce the rates of misdirected and missent mail. The damage rate has been greatly reduced already. As the BMCs gain operating experience and equipment difficulties are remedied, their volume of nonmachinable mail will drop. Our performance figures

APPENDIX I

show that BMC productivity and efficiency rates have increased steadily since start-up. The accident rate at three of the five BMCs is now close to the Service-wide rate and specific attention is being given to reducing the accident rate at the remaining two. The investment cost increases and construction delays to which the report refers are not unreasonable for a project of this type.

As the report itself indicates, the Service is striving to correct the problems it has encountered in the implementation of the NBMS, and it is premature to try at this time to assess the ultimate success of our efforts or to evaluate the NBMS's ultimate ability to reduce costs and improve service.

Sincerely,

Benjamin F. Bailar