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**REPORT TO THE COMMITTEE ON
POST OFFICE AND CIVIL SERVICE
HOUSE OF REPRESENTATIVES**

RELEASED

**Procuring Equipment For
St. Louis Postal Data Center** B-180235

United States Postal Service

**BY THE COMPTROLLER GENERAL
OF THE UNITED STATES**

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JULY 1974



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

B-180235

The Honorable Thaddeus J. Dulski
Chairman, Committee on Post Office
and Civil Service
House of Representatives

Dear Mr. Chairman:

In response to your November 28, 1973, request that we determine whether the contracts for automatic data processing equipment for installation at Postal Data Centers in St. Louis, Missouri, and New York City were fairly awarded, we are providing you with our observations on the procurement for the St. Louis Center. We shall report separately on New York.

As your office requested, we did not ask the Postal Service to review or formally comment on this report. However, we did discuss the matters presented in this report with agency officials who agreed with our observations and are revising their policies and procedures for selecting automatic data processing equipment. In addition, we discussed our observations with the successful and unsuccessful vendors on the St. Louis procurement. Officials of these firms also agreed with our observations.

We do not plan to distribute this report further unless you agree or publicly announce its contents.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "James A. Roberts".

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
IBM	International Business Machines Corporation
PDC	Postal Data Center
RFP	request for proposal

COMPTROLLER GENERAL'S REPORT
TO THE CHAIRMAN, COMMITTEE ON
POST OFFICE AND CIVIL SERVICE
HOUSE OF REPRESENTATIVES

PROCURING EQUIPMENT FOR
ST. LOUIS POSTAL DATA CENTER
United States Postal Service
B-180235

D I G E S T

WHY THE REVIEW WAS MADE

GAO was requested to determine whether contracts for automatic data processing equipment for Postal Data Centers in St. Louis and New York City were fairly awarded.

This report contains GAO's observations on the St. Louis procurement. GAO will report separately on the New York procurement.

FINDINGS AND CONCLUSIONS

The Postal Service did not try to rig the St. Louis contract award. On the other hand, deficiencies in the request for proposal and in the evaluation procedures worked to the advantage of the vendor awarded the contract.

The request for proposal did not adequately describe the workload to be processed on vendor equipment and did not provide information on the criteria that would be used to evaluate proposals. (See pp. 2 and 3.)

The Service made the hardware, software, vendor support, and benchmark

evaluations adequately. (See pp. 4 and 5.)

The Service did not use the best acquisition method available, nor did it consider all potential savings. (See pp. 5 to 7.)

The Service did not adhere to its policy that substantive questions submitted by vendors on the request for proposal be answered and that copies of questions and answers be provided to all participating vendors. (See pp. 8 and 9.)

AGENCY ACTIONS AND
UNRESOLVED ISSUES

These deficiencies were discussed with the successful and unsuccessful vendors and Postal Service officials. Vendor officials agreed with GAO's observations. Service officials also agreed and said they are revising their policies and procedures for selecting automatic data processing equipment. (See p. 10.) These actions should assist the Postal Service in alleviating the weaknesses noted.

CHAPTER 1

INTRODUCTION

The Postal Service has six Postal Data Centers (PDCs)--five regional PDCs in New York, Atlanta, Minneapolis, Dallas, and San Mateo and one national PDC in St. Louis. Generally the regional PDCs maintain accounting ledgers for their regions and provide system development, maintenance support, and data processing services to the regions and to Postal Service headquarters.

The St. Louis PDC has been designated to process such centralized financial activities as (1) payments for transportation, (2) real property accounting, and (3) the postal money order system.

In January 1972 the Service completed a feasibility study that considered ways to increase the capability of the St. Louis PDC to handle increased projected workload requirements. The study considered three alternatives.

- Modifying the existing computer system.
- Acquiring equipment to supplement the existing system.
- Acquiring a large-scale computer system to replace the existing one.

The report on the study recommended that the PDC acquire a new large-scale computer system.

The Postal Service's Management Information Systems Department submitted the project to the agency's Capital Investment Committee for consideration. The Committee approved the acquisition and authorized an expenditure of \$3.1 million.

Four vendors responded to a request for proposal (RFP), issued in July 1972. The Service made technical and benchmark evaluations of the proposals in September and October 1972. One vendor did not pass the benchmark evaluation and was eliminated from further consideration. App. II summarizes the costs of the systems proposed by the three remaining vendors.

In October and November 1972, the Service made a detailed cost analysis of the three proposals. The Service selected the equipment proposal by International Business Machines Corporation (IBM) and awarded it a contract on December 29, 1972.

CHAPTER 2

ADEQUACY OF REQUEST FOR PROPOSAL

The RFP for the St. Louis procurement was inadequate in certain respects because it

- did not adequately describe the workload to be processed on vendor equipment and
- did not provide information on the criteria that would be used to evaluate vendor proposals.

WORKLOAD INADEQUATELY DESCRIBED

The RFP did not adequately describe the workload that the Postal Service desired to be processed. According to the two unsuccessful vendors--Honeywell Information Systems, Inc., and Sperry Rand Corporation/UNIVAC Division--their companies proposed systems that would have required major modification to handle the expanding workload projected by the Service.

The RFP did not make clear that the constraint placed on the time required to process the projected workload applied to the long-range and short-range requirements.

The RFP:

- Described the short-range workload and stipulated that the equipment proposed must be able to process this workload in one 8-hour shift.
- Stated there would be an annual growth rate of 5 percent in data storage requirements.
- Noted that the equipment proposed should be able to handle the projected workload through the first 2 years of operation, with provision for modular expansion thereafter.

The unsuccessful vendors assumed, in preparing their proposals, that the anticipated data storage increase could be met by adding disk storage devices and that an additional shift or shifts could be operated if there was also a requirement for additional processing time (an increase in storage capacity does not necessarily imply a need for increased processing time).

Contrary to the Postal Service's intent, these vendors did not interpret the RFP to mean that (1) the increase in storage capacity was accompanied by an increase in processing time and (2) despite the increased processing time, the projected workload was still to be handled in one 8-hour shift.

As a result, the proposals submitted by the unsuccessful vendors were adjusted to reflect the estimated additional costs to provide the added required processing capability. These adjustments added about \$1.4 million each to the proposals submitted by Honeywell and UNIVAC. This problem is discussed in the section on evaluation procedures. (See p. 5.)

EVALUATION CRITERIA NOT IDENTIFIED

The Service stated in the RFP that it would select the most cost-effective system. However, the RFP provided only limited information on how the Service would determine which system was the most cost effective. Further, the RFP stated that proposals which met mandatory minimum requirements would be examined for desirable features which would be advantageous to the Service. However, it did not list those features which the Service desired nor indicate how they would be evaluated.

General Services Administration guidelines for the preparation of specifications for, and the selection and acquisition of, automatic data processing equipment state that RFPs should include (1) the evaluation criteria to be used and (2) a list of desirable features with appropriate dollar values or specific weights assigned to each feature.

The vendors stated that, had they known of the evaluation criteria and the most desirable features, they could have submitted more responsive proposals. We believe that the Postal Service should have identified the major desirable features and provided information on the cost performance formula to be used in evaluating the proposals. This formula was used to relate dollar savings or cost to the proposed systems and was based on the benchmark performance.

CHAPTER 3

EVALUATION PROCESS

The Postal Service's evaluation guidelines for use in the St. Louis procurement were issued in July 1972. These guidelines set forth basic policies for evaluating proposals on hardware, software, vendor support, benchmark, and cost analysis. The guidelines also established separate panels to evaluate the various sections of proposals. The detailed evaluations of the hardware, software, and vendor support sections were made by analyzing the vendors' responses to a standardized questionnaire issued in the RFP.

The Service made the hardware, software, vendor support, and benchmark demonstration evaluations adequately. The cost analysis and procurement decision showed that the Service did not use the best acquisition method available, nor did it consider all the potential savings.

HARDWARE

Vendors' responses to the hardware section of the questionnaire were reviewed and evaluated on the basis of comparisons and references to the vendors' proposals. Individual ratings on the hardware were given to the following subcategories: central processing unit, main memory, input/output channels, direct access storage, communication interface, remote terminals, line printers, magnetic tape drives, card readers, and others. Vendors' answers were rated by giving the highest score to the best response.

In summarizing the hardware evaluation, the panel stated that each vendor had met the mandatory requirements. Three vendors appeared to be able to fulfill the data processing requirements of the St. Louis PDC; one vendor's proposed capability was questionable. In our opinion, the hardware evaluation was adequately made.

SOFTWARE

This area included a detailed technical evaluation of the following subcategories: data management system, operating system, sort/merge, utility programs, telecommunications, assembly language, and others. According to the software evaluation panel, all vendors satisfied the mandatory software requirements and one vendor's software package showed a slight advantage over those of the other vendors. We believe that the software evaluation was adequately made.

VENDOR SUPPORT

The vendor support evaluation consisted of the following subcategories: preinstallation, conversion, training, systems support, maintenance, documentation, and others. According to the vendor

support evaluation panel, the vendors had satisfactorily met Postal Service requirements and one vendor had a slight advantage over the others. In our opinion, the vendor support evaluation was adequately made.

BENCHMARK PERFORMANCE

The performance benchmark test was developed and conducted to afford each vendor an opportunity to demonstrate its capabilities in particular functional areas. The benchmark evaluation panel calculated processing time--expressed in operational-use hours. Burroughs Corporation was eliminated because it could not perform the workload within the acceptable time frame of 8 hours. The Postal Service's extrapolation of operational-use hours from the performance benchmark demonstrations resulted in the following calculation of the hours required to perform the basic workload: IBM, 1.80 hours; Honeywell, 7.10 hours; and UNIVAC, 7.44 hours. Appendix III describes the procedures used and the results of the operational-use hours determination. We believe the benchmark performance was adequately evaluated.

COST ANALYSIS AND PROCUREMENT DECISION

The cost analysis panel developed the total 5-year cost of each vendor's various procurement alternatives. Each technical evaluation panel had been instructed to identify desirable features that would prove to be advantageous to the Postal Service and to provide these to the cost analysis panel for consideration. Appendix IV shows the identifiable potential cost savings and potential additional costs (referred to as cost potentials) for each vendor.

The most important single cost potential used was the workload expansion capability which was based on the difference between the operational-use hours of IBM and those of each of the other vendors. The Postal Service then calculated the value ^{1/}of the difference which added \$1,399,200 and \$1,436,160 to the Honeywell and UNIVAC proposals, respectively. Both vendors had proposed configurations which met the mandatory benchmark requirement, but, because they did not offer a workload expansion capability beyond the first 2 years of a 5-year system's life, additional costs were added to their proposals.

After adjusting each vendor's proposal, on the basis of desirable features, the cost analysis panel calculated cost-savings ratios to rank the various vendors' alternatives as to cost effectiveness. These

^{1/} These values were calculated by taking the difference between IBM's operational-use hours (1.80) and UNIVAC's (7.44) and Honeywell's (7.10), multiplied by (1) an hourly lease rate, (2) 22 days per month, and (3) 60 months (the 5-year system's life).

ratios considered acquisition cost, cost potentials, and residual values. These ratios showed IBM's alternative of lease with option to purchase at the end of 1 year to be the most cost-effective acquisition method. The following table shows the vendor rankings.

<u>Vendors</u>	<u>Cost-savings ratio (note a)</u>	<u>Acquisition method</u>
IBM	1.53	Purchase option end of 1 year
IBM	1.46	Initial purchase
Honeywell	1.02	Purchase option end of 1 year
UNIVAC	1.00	Purchase option end of 1 year

a/To calculate the ratios, the total 5-year costs were adjusted by the cost potentials and residual values. In turn, each vendor's cost and savings figures were compared with UNIVAC's (used as the base), discounted for a 5-year period at 10 percent, and the resulting cost and savings differences were used to establish the ratios.

Our review of the ratios calculated by the Postal Service showed that the Service did not consider all potential savings in making the analysis. This area involves the purchase of compatible peripheral and memory equipment from other manufacturers. On the basis of General Services Administration contracts, at least \$280,000 could have been saved by purchasing certain items from other manufacturers. (See app. V.) The Service should have considered this potential savings when it made its cost analysis.

Our analysis of the costs of leasing with option to purchase at the end of a year or initially purchasing the equipment shows there was an advantage of about \$115,000 to the lease with option to purchase, if the savings from the purchase of peripheral equipment from other manufacturers had been included.

We based our analysis on an assumption of the present value of the costs to be incurred in the future. To compare the desirability of spending sums now with the desirability of spending sums in the future, the present value of sums must be determined and compared. We used a 7-percent discount rate to determine the present value of each alternative because it is about the same as the interest rate on the 25-year bonds issued by the Postal Service in January 1972.

The Service's own analysis, done differently, also indicated that leasing with an option to purchase at the end of a year was advantageous. Postal Service Management Information Systems Department officials said they purchased the equipment because they thought the Capital Investment Committee had authorized only capital funds and, since they had no operating moneys to lease the equipment, they thought purchase was the only alternative.

According to a representative of the Capital Investment Committee the requiring department and the Office of Procurement determine

the acquisition method a department uses. He said capital funds would be available not only for purchase but also for lease-purchase arrangements. We told this to officials of the Management Information Systems Department.

The Postal Service did not (1) use the best acquisition method available nor (2) consider all potential savings when calculating its cost-savings ratios. The Service was not biased in its selection of IBM because desirable features are normally considered in making a cost analysis of a vendor's proposal. However, General Services Administration procedures require identification of desirable features in the RFP. The management weakness was the Service's failure to identify them in the RFP.

CHAPTER 4

POSTAL SERVICE RESPONSES TO VENDORS' QUESTIONS

Postal Service policy, which was reiterated in the RFP, provides that:

- Vendors having questions concerning the RFP submit them in writing.
- Substantive questions be answered, and copies of the questions and answers will be mailed to all participating vendors.
- RFP addendums be issued if clarification revisions to the RFP are necessary.
- RFP supplements be issued if it becomes necessary to have additional data to enable a more exact interpretation of the RFP.

Correspondence between vendors and the Service showed that, in the majority of cases, the Service adequately responded to vendors' questions. However, the vendors said Service responses were vague sometimes, because they referred only to sections of the RFP or RFP amendments. Therefore, we analyzed in detail 72 Postal Service responses and determined that about 22 percent were vague. In these instances, the Service merely referred vendors back to the same sections of RFP that the vendors had used in referencing their questions or referred the vendors to amendments which did not adequately answer the questions.

For example, one vendor sought information on the timing criteria to be used in the benchmark demonstration. The Service responded that timing criteria were not available and referred the vendor back to the RFP for further clarification. This was the same section of the RFP that the vendor had referred to in his question. Another vendor asked for an explanation of the criteria to be used by the Postal Service to determine desirable features. The Service replied that proposals would be evaluated in accordance with the evaluation section of the RFP as amended. However, as we stated on page 3, the Service did not list desirable features, nor did it indicate how they would be evaluated.

Correspondence files showed that different vendors, on different dates (up to 2-week intervals), had submitted basically the same questions. The files did not contain documentation to show that copies of substantive questions and answers had been sent to all vendors. The vendors told us that they had not received any copies of questions submitted by the other vendors or the Postal Service's responses.

In addition, a General Services Administration official said, to treat all vendors fairly, the agency gives copies of vendor questions and General Services Administration responses to all participating

vendors. The Postal Service should adhere to its policy to insure that all vendors are treated fairly and to minimize repetitive questions.

A Postal Service official informed us that, although copies of questions and answers had not been sent to all vendors, the questions of each were answered individually.

CHAPTER 5

CONCLUSIONS AND AGENCY ACTIONS

The Postal Service did not try to rig the St. Louis contract award. On the other hand, as discussed in prior chapters of this report, deficiencies in RFP and in the evaluation procedures worked to one contractor's advantage.

We discussed these deficiencies and other problems observed with the successful and unsuccessful vendors and Postal Service officials. Vendor officials agreed with our observations. Postal Service officials also agreed and said they were revising their policies and procedures for selecting automatic data processing equipment. The new policies and procedures will include

- automatic data processing specification guidelines,
- a standardized RFP,
- detailed evaluation methodology,
- a detailed section plan, and
- evaluation report guidelines.

According to Postal Service officials, these new policies and procedures will closely follow those of the General Services Administration and vendors will be given an opportunity to review and comment on them before the new procedures are official. The Postal Service plans to implement these new policies and procedures in July 1974. The officials also said that actions would be taken to correct problems concerning (1) method of equipment acquisition and (2) responses to vendor questions.

These actions should assist the Postal Service in correcting the weaknesses noted.

CHAPTER 6

SCOPE OF REVIEW

This report is based on discussions with Postal Service officials at headquarters and at the St. Louis PDC, General Services Administration officials, and officials of the four vendors that submitted proposals. Our review also included

- examining and evaluating the Service's policies and procedures for procuring automatic data processing equipment, the St. Louis feasibility study, RFP and evaluation reports, the contract correspondence files, and related Service documents;
- analyzing vendors' proposals; and
- reviewing General Services Administration guidelines for the preparation of specifications for, and the selection and acquisition of, automatic data processing equipment.

NINETY-THIRD CONGRESS

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U.S. House of Representatives
 COMMITTEE ON POST OFFICE AND CIVIL SERVICE
 207 CANNON HOUSE OFFICE BUILDING
 Washington, D.C. 20515

November 28, 1973

Honorable Elmer B. Staats
 Comptroller General
 General Accounting Office
 441 G Street, NW
 Washington, D. C. 20548

Dear Mr. Staats:

The United States Postal Service has awarded contracts to IBM to furnish computers for Postal Data Centers in St. Louis and New York. In each award IBM was not the low bidder but through adjustments made by the Post Office evaluation group, the adjusted bid price favored IBM.

After being appraised of the method used for the St. Louis evaluation and award, the Postal Facilities, Mail, and Labor Management Subcommittee staff requested an explanation from the Postal Service. Mr. John Gentile, Assistant Postmaster General for Management Information Systems, accompanied by Mr. Norman Halliday, Assistant Postmaster General for Congressional Affairs, and Mr. John W. Powell, Congressional Liaison Officer for the U.S.P.S., gave a briefing on the manner in which the evaluation at St. Louis was made. They also told of the proposed method of evaluation (radically different) that would be used for the New York award.

The briefing did not satisfy the staff or justify the method used in the award. Mr. Gentile agreed to furnish a written and more detailed explanation of the Postal Service action. The written explanation offered nothing to further clarify or justify the Post Office method of award.

The Subcommittee staff discussed the evaluation with a computer expert who has an in-depth knowledge of computers and computer transactions. This person felt that the methods of evaluation were arbitrary and unjust to the other bidding vendors.


Two of the vendors have filed letters of protest with the United States Postal Service.

APPENDIX I

From information obtained in the staff investigation, it appears that the awards have been unfairly made and that a more thorough investigation should be made by the General Accounting Office. Therefore, I am requesting the assistance of GAO in determining whether the Postal Data Center contracts for St. Louis and New York were fairly and legally let. In other words, were all of the vendors given an equal chance to receive the contracts or did the U. S. Postal Service structure the Request for Proposal, bidding procedures, program formula, and deciding criteria to ensure that one pre-selected vendor receive the contract.

I have enclosed the pertinent correspondence and would appreciate your compliance to my request for assistance as soon as possible.

Very truly yours,


THADDEUS J. DULSKI
Chairman

Enclosures

SUMMARY OF VENDOR 5-YEAR TOTAL COSTS

	Vendor (note a)		
	<u>Honeywell</u>	<u>IBM</u>	<u>UNIVAC</u>
<u>Initial purchase</u>			
Equipment purchase cost	\$2,491,260	\$2,394,810	\$2,193,226
Maintenance cost	686,544	414,622	617,916
Other costs	<u>5,448</u>	<u>245,090</u>	<u>47,820</u>
Total 5-year costs (note b)	<u>\$3,183,252</u>	<u>\$3,054,522</u>	<u>\$2,858,962</u>
<u>Lease-purchase option</u> <u>end of 1 year</u>			
<u>Cost to purchase (end of</u> <u>1 year)</u>			
First-year lease	\$2,064,991	\$2,072,017	\$1,615,095
Maintenance	609,084	<u>c/649,423</u>	608,556
Other costs	<u>d/599,311</u>	<u>370,511</u>	<u>d/617,916</u>
Additional equipment (lease and cost of purchase in third year)	<u>5,448</u>	<u>245,090</u>	<u>47,820</u>
	<u>166,568</u>	<u>- 0 -</u>	<u>- 0 -</u>
Total 5-year costs (note b)	<u>\$3,445,402</u>	<u>\$3,337,041</u>	<u>\$2,889,387</u>

a/ Burroughs Corporation did not pass the benchmark evaluation and was not considered in the cost evaluation.

b/ Total 5-year costs do not reflect adjustments for cost potentials and residual value.

c/ First-year lease includes first-year maintenance.

d/ Represents 5-year maintenance costs.

Step II: Determine "operational-use hours" which represents the time it would take the vendor's equipment to do the total job requirement as opposed to the "elapsed time" which represented the time it took to do the test job requirement.

Extrapolation Of Sustained Mix Timing

A Start time	B End time	C Elapsed time B - A=C	D Transactions processed
-----------------	---------------	------------------------------	-----------------------------

E = D Times a constant (numbers of files)

E Total
accesses

F = E ÷ (C times 60)

F Accesses
per
second

Elapsed time in seconds

G = (accesses per day ÷ F)

G Operational
use-hours

$$\frac{687,581}{3,600}$$

seconds in 1 hour

A = Time first program begins.

B = Time last short-run program is completed.

D = Equipment console shows transactions processed in thousands.

- - - -

Using the above procedures, the Postal Service extrapolated the operational-use hours resulting in the following calculation of the number of hours required to perform the basic workload: IBM, 1.80 hours, Honeywell, 7.10 hours, and UNIVAC, 7.44 hours.

SUMMARY OF COST EVALUATION ADJUSTMENTS

<u>Item</u>	<u>Vendor</u>		
	<u>Honeywell</u>	<u>IBM</u>	<u>UNIVAC</u>
Availability of generalized test data generator package		\$(15,000)	\$(15,000)
Requirement to convert 14 money order programs from 370/135 to run on large-scale system		(2,560)	
Availability of 1200 COBOL to ANSI COBOL conversion routine	\$(10,000)	(10,000)	
Release 370/135 processor and peripherals in 2 years and transfer money order scanning workload to large-scale system (note a)		(389,340)	
Preinstallation testing	7,240		
Availability of vehicle-scheduling application package		(30,000)	
Additional cost to Postal Service for proposed vendor configurations based on differences in vendors' operational-use hours	<u>1,399,200</u>	<u>-</u>	<u>1,436,160</u>
Total (net)	<u>\$1,396,440</u>	<u>\$(446,900)</u>	<u>\$1,421,160</u>

a/Was later determined by the Postal Service Selecting Committee to be excluded in the final analysis, because its inclusion would have been unfair to Honeywell and UNIVAC.

Note: Amounts showing minus () enhance vendors' total value whereas other amounts detract.

ESTIMATED SAVINGS BY PURCHASE OF
PERIPHERAL EQUIPMENT FROM OTHER MANUFACTURERS

Description of equipment	Units needed	Cost to the Service from IMB	Cost to the Service from IBM after rental credits	Cost to the Service for compatible equipment (note a)	Savings to the Service	
					adjusted by rental credits	without rental credits
3360-1 processor storage	1	\$ 132,000	\$ 108,600	\$ 40,000	\$ 68,600	\$ 92,000
3360-3 processor storage	1	264,000	217,200	75,000	142,200	189,000
3803-1 tape control with tape switch and seven tracks	2	36,340	30,125	33,800	b/[7350]	5,080
3420-7 magnetic tape unit-- single density	6	25,640	21,218	23,050	b/[10,992]	15,540
3420-3 magnetic tape unit-- seven track	2	16,840	13,836	16,500	b/[5,328]	680
3830-2 storage control	1	81,000	66,420	80,450	b/[14,030]	550
3330-1 disk storage	3	51,940	42,580	19,350	69,690	97,770
Total					<u>\$280,490</u>	<u>\$400,620</u>

a/ Figures taken from General Services Administration contracts.

b/ These figures not included in total, because the benefit for these items would be in maintaining the existing IMB equipment.