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



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The Honorable Jack Brooks, Chairman  
Committee on Government Operations  
House of Representatives

DEC 1 1976

Dear Mr. Chairman:

In response to your January 17, 1976, request, we reviewed the Department of Agriculture's plans to replace an IBM 360/65 computer system located at its New Orleans Computer Center. As requested, we concentrated on determining whether Agriculture could justify the replacement and whether it would have to be made on a noncompetitive basis.

We found that Agriculture was tentatively planning to replace the IBM 360/65 system with an IBM 370/165 system in November 1976. The latter system would be leased from the third-party market for 36 months, costing the Government about \$3.3 million. This cost is about \$66,000 more a month than the cost to lease the IBM 360/65 system, or about \$2.4 million more over the 36-month period.

The IBM 370/165 system was to provide sufficient data processing capacity until January 1978, when Agriculture planned to have operational a new computer system which would be acquired through a competitive procurement. The IBM 370/165 system was to have been retained for 22 months beyond that date to allow Agriculture time to reprogram the computer applications for the new system.

The need to upgrade the IBM 360/65 system was determined through a requirements analysis based on 21 shifts a week and a capacity of 285 productive computer hours 1/ a month. The analysis dated April 9, 1976, showed that the center's workload would exceed the productive capacity of the IBM 360/65 system in May 1976. It indicated that the shortage would be about 9 hours in May 1976 and would incrementally increase to 229 hours by December 1977.

1/ Computer time available for processing user workloads after providing for system maintenance and computer operating overhead.

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Our review showed that the forecasted shortages are not materializing. We found that computer use in May, June, and July 1976 amounted to 228, 234, and 244 hours, respectively, whereas projected use for those months was 293, 313, and 344 hours, respectively.

The shortages are not occurring as predicted, because the National Finance Center, the primary user of the IBM 360/65 system, and the New Orleans Computer Center personnel made software and equipment modifications and improved workload scheduling. These enhancements increased computer throughput which permitted the computer center to process more work with less computer resources. In addition, the Finance Center has not completed developing new applications which represent a major part of the computer center's workload projections. Those applications were to be implemented in mid-1976, but according to the Director of the Finance Center, many of them may be delayed until at least January 1978.

The software and equipment improvements also increased productive computer hours from 285 hours to an estimated 325 hours. By analyzing anticipated workload increases, we found that this increased capacity combined with the improved workload scheduling and the other enhancements should enable the IBM 360/65 system to support the computer center's workload until the planned replacement system is competitively acquired and becomes operational in January 1978. However, if the Finance Center is able to maintain its development and implementation schedule for new applications, which is an unlikely occurrence according to the Finance Center's Director, it may be necessary for Agriculture to offload some work to other Government computer installations and to reschedule other work to preclude saturation of the IBM 360/65 system before its replacement in January 1978.

With regard to offloading, we found that the computer center processes many applications that are not integrated nor dependent on common data bases. These applications, which we estimate use about 73 computer hours a month, can be progressively offloaded on a selective basis to other computer centers for processing without adversely affecting the users or other applications. Agriculture officials

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agreed that this can be done at minimal cost if necessary. They told us that the major out-of-pocket cost would be for data communications, which would be nominal when compared to the additional \$66,000 monthly cost of the IBM 370/165 computer system.

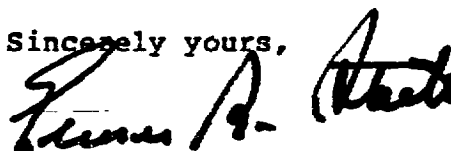
On the basis of our analysis of the computer center's operation and its present and planned workload, we concluded that the IBM 360/65 system could process the workload through December 1977 and that there was no immediate need to acquire the IBM 370/165 system.

Agriculture officials generally agreed with our findings and conclusions. They said that they planned to hold the interim upgrade in abeyance until the latter part of calendar year 1977. At that time they intend to reexamine the need if the competitive procurement is delayed. Because the IBM 360/65 system may be saturated at that time, we agree with Agriculture's plan to reexamine the need.

As discussed with your office, we are continuing to review the justification for the competitive procurement and will report the results to you at a later date.

As also discussed with your office, we are sending copies of this letter to the Chairman, Subcommittee on Agriculture, and Related Agencies, Senate Committee on Appropriations, because of his interest in Agriculture's procurements of data processing equipment. We are also sending copies to the Secretary of Agriculture and the Administrator of General Services.

Sincerely yours,



Comptroller General  
of the United States