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REPORT ON ADMINISTRATION AND CONTROL OF
PROCUREMENT AND UTILIZATION OF AUTOMATIC
DATA PROCESSING EQUIPMENT

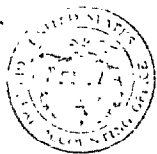
Maritime Administration
Department of Commerce

UNITED STATES
GENERAL ACCOUNTING OFFICE

JUN 24 1968

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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

CIVIL DIVISION

JUN 24 1969

Dear Mr. Gibson:

The General Accounting Office has made a review of the Maritime Administration's automatic data processing activities. The review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53) and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

This report deals primarily with the need for (1) improvement in administration and control of Maritime's automatic data processing activities, (2) improved administration of computer programming contracts, and (3) giving appropriate consideration as to whether to lease or purchase automatic data processing equipment.

We would like to be advised of any actions taken as a result of the recommendations which are contained in the report. Copies of the report are being sent to the Assistant Secretary for Administration, and the Director, Office of Audits, Department of Commerce, for their information.

We appreciate the cooperation received from Maritime officials during our review.

Sincerely yours,

Henry Eschwege

Henry Eschwege
Associate Director

The Honorable Andrew E. Gibson
Administrator, Maritime
Administration
Department of Commerce

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REPORT ON
PROCUREMENT AND UTILIZATION OF
AUTOMATIC DATA PROCESSING EQUIPMENT
MARITIME ADMINISTRATION
DEPARTMENT OF COMMERCE

INTRODUCTION

The General Accounting Office has reviewed the controls over the acquisition and utilization of the automatic data processing (ADP) equipment currently leased by the Maritime Administration, Department of Commerce. Our review was directed toward determining whether the equipment was acquired and used in the most economical and efficient manner. The scope of the review is described on page 21.

Maritime is currently leasing a Honeywell H-200 computer system consisting of a central processing unit, card reader, printer, card punch, and five magnetic tape drives at an annual cost of \$94,560. The system is used to process data and prepare payroll and accounting records, foreign and domestic trade reports, and maritime labor studies and reports. The system is also used in connection with the ship construction and research and development activities as well as for various other programs requiring data processing services. The agency is currently developing programs for implementation of the personnel records system, a complete financial system and a shipboard information system. In addition, studies are presently being conducted under commercial contracts involving the collection of data for ship construction, maritime promotion, and maritime manpower. Maritime anticipates that the results of these studies will develop a

need for expanded data processing capabilities and plans to meet this need by changing its present computer configuration by March 31, 1971.

Maritime's ADP activities are conducted by the Office of Data Systems which is responsible for planning data processing programs, designing and controlling comprehensive integrated ADP systems, conducting feasibility studies, and establishing resource needs in terms of equipment, personnel, and space requirements. The Office of Data Systems is also responsible for developing machine programming procedures for specific applications, operating the computer and all peripheral equipment used by the system, and maintaining checks of output for format and legibility, distributing output data to requesting offices, and maintaining production records. Computer programming activities are also performed by personnel in certain operating units in Maritime and through the use of computer programming contracts with commercial contractors.

NEED FOR IMPROVEMENT IN ADMINISTRATION

AND CONTROL OF

AUTOMATIC DATA PROCESSING ACTIVITIES

During our review we noted several areas needing improvement in the administration and control of the Maritime Administration's ADP activities. These areas include (1) control and use of magnetic tapes, (2) procedures and controls over classified data, tapes, and reports, (3) reimbursements for other Government agencies' use of Maritime's computer system, and (4) recording and reporting of computer utilization.

CONTROL AND USE OF MAGNETIC TAPES

During our observations of Maritime's computer room operations, we noted that Maritime had not developed and implemented adequate written procedures for the control and use of its magnetic tapes. We found that retention dates had not been established for all records stored on tapes and that computer operations were delayed while searches were made for tapes.

We noted that, in one instance, a lack of retention dates resulted in destruction of a master file prior to verification of a new master file of data. Subsequent use of the new master file showed that it contained inaccurate data, and it then became necessary for the Office of Data Systems and the Maritime operating unit to spend additional time correcting the new master file. We believe that retention of the original master file until data on the new master file were verified would have reduced the manpower and computer time required to produce the necessary reports.

We also noted that reels of tape were not being returned to the library promptly after each use and that computer operations were delayed while the tape librarian and the computer operators searched for tapes. We selected 331 tapes from the inventory records and found that only about 70 percent of the tapes were located in the tape library. Reels of tape were stacked in various locations in the computer room and the operators were being permitted to obtain tapes from the library and return them during the librarian's absence.

We believe that retention periods should be established to prevent tapes from being re-used until the data stored on them are no longer needed inasmuch as data already on a tape is destroyed when new data are written on the tape. Established retention periods also help to ensure that tapes containing data which are no longer needed are promptly made available for re-use. Proper re-use of tapes also keeps tape inventories and related physical storage requirements to a minimum.

We also believe that, to prevent unnecessary delays in computer operations, access to the library should be limited and that tapes should be returned to their storage locations promptly after each use so that they are readily available when needed.

Recommendations

We recommend that Maritime develop and implement written procedures to (1) improve the controls over tape use and storage including the

establishment of retention dates for all records which are stored on magnetic tapes, (2) limit access to the tape library, and (3) provide for prompt return of tapes to their storage locations after each use. In implementing this recommendation, consideration should be given to the feasibility of installing a tape vault to improve physical control over magnetic tapes.

PROCEDURES AND CONTROLS OVER CLASSIFIED
DATA, TAPES, AND REPORTS

We noted several weaknesses in the storage of magnetic tapes, punched cards, and program documentation containing security classified information. We also noted that one of the computer operators, who operated the computer during processing of the classified data, did not have a security clearance.

At the time of our review, the magnetic tapes containing classified data were stored in a locked tape cabinet in the computer room. The tape cabinet, however, did not meet the security requirements established by the Department of Commerce. The classified data stored on the magnetic tapes are also stored on punched cards to enable Maritime to re-create the tape files if they become damaged or destroyed. We observed that the punched cards were stored in an unlocked card file cabinet in the keypunch machine room. An official of the Office of Data Systems informed us that the card file cabinet had previously been kept locked but that the locks had been removed.

We found that the computer program used to process the classified materials was being modified at the time of our review. The computer programmer making the modifications informed us that the written documentation for the program was not locked in a security cabinet at night or when not in use. We brought this matter to the attention of Maritime officials and

they took corrective action. We were also informed by the computer operator that, following our review, he had been asked to complete an application for a security clearance.

REIMBURSEMENTS FOR OTHER GOVERNMENT AGENCIES'
USE OF THE MARITIME COMPUTER SYSTEM

Maritime generally utilizes its computer system for two 8-hour shifts daily. During other time periods, the computer system is made available to other Government agencies on a reimbursable basis. At the conclusion of our review, only one agency was using Maritime's computer system on a reimbursable basis. This agency has agreed to reimburse Maritime for the time used on the basis of the actual time that the computer system is in operation as shown on the computer's internal clock. We were informed by Maritime officials that, at the end of each fiscal quarter, the Office of Data Systems computes the hourly rate and hours used by other agencies and forwards a request for billing to the Office of Budget. The Office of Budget then authorizes the Office of Finance to prepare and send a reimbursement voucher to the using agency.

When an agency uses Maritime's computer system on a reimbursable basis, the using agency's operator records on a time card the meter readings which appear on the computer's internal clock at the beginning and end of the job. For billing purposes, the Office of Data Systems converts the internal clock meter readings to regular clock time which is then shown on the monthly utilization run. Computations for quarterly reimbursement billings are based on the times shown on the utilization runs. The Office of Data Systems has instructed its computer operators to maintain a record of the internal meter readings at the beginning and end of each day's operations. If the computer operators record the times as instructed, any differences between the daily ending reading and the

following day's beginning reading should be supported by a time card prepared by the using agency's operator showing the elapsed time between the two readings.

We found that Maritime did not receive reimbursement, amounting to over \$2,200, for about 48 hours of computer time used by another Government agency during the fourth quarter of fiscal year 1967. The records in the Office of Data Systems show that the computations were made for the time used during the quarter, but no request for billing was forwarded to the Office of Budget to instruct them to authorize the quarterly billing. Although the Office of Budget maintains a tickler file to follow-up on reimbursable work, they were not aware of the omitted billing until we brought it to their attention during our review.

We also found indications that reimbursable time was used on ten occasions between February 1 and April 30, 1968, which was not recorded on the monthly utilization runs. Since these runs serve as the basis for preparing the quarterly billing computations, the using agency was not billed for the use of the computer on these occasions. We noted that Maritime's computer operators do not always record the meter readings at the beginning and end of each day and that the utilization runs are not verified against the records of meter readings to ensure that all reimbursable time has been included on the runs and will therefore be included in the quarterly billings.

We believe that Maritime has not received full reimbursement from other Government agencies for the use of its computer system because the Office of Data Systems and the Office of Budget have not followed the procedures for obtaining reimbursements and because the Office of Data Systems

has not been verifying the meter readings and utilization runs to ensure that all reimbursable work has been accounted for. Therefore, Maritime's computer costs have been overstated and the using agencies' appropriations have been augmented to the extent that reimbursements have not been received.

Recommendations

We therefore recommend that the Office of Data Systems strengthen its controls over reimbursable use of its computer system by requiring operators to record the internal meter readings at the beginning and end of each day as instructed. All periods of time between the day's ending and following day's starting meter readings should be supported by a time card from the using agency's operator. At the end of each month, the utilization run should be verified with the records of meter readings to ensure that reimbursable billings will include all time used by other agencies during the billing period.

We also recommend that the Office of Budget and the Office of Data Systems follow the prescribed procedures for obtaining reimbursements from other Government agencies for the use of the Maritime computer.

RECORDING AND REPORTING OF COMPUTER UTILIZATION

Records of machine utilization are one of the valuable tools management can use to measure the work performed by and the need for data processing equipment. We found that Maritime's utilization records do not show all of the computer room activities which should be reviewed by management as part of its evaluation of computer operations.

Maritime's present utilization records include time cards for each job and a monthly utilization run showing all jobs and time used during the month. Also, a daily schedule of planned computer utilization is prepared a week in advance whenever possible.

The computer operator records the starting and ending time on the time card through the use of a time clock. At the end of each month, the time cards are keypunched and a monthly utilization run is prepared. Officials of the Office of Data Systems use the utilization run as a detailed record of all of the jobs processed during the month.

We found that the monthly utilization run showing jobs processed cannot be compared with the daily schedules of planned utilization because the formats of the reports are incompatible. The utilization run shows each individual job by its job name and number. The daily schedules, however, show only the name of a computer programmer or the office for whom the job is to be done. As a result of these incompatible formats, management cannot ascertain if jobs are being performed as scheduled. In addition, because of the general nature of the daily schedule, it cannot be used by the tape librarian to provide tapes and the computer operator's instructions for jobs in advance of the scheduled starting time. As discussed in other sections of this report, delays occur when tapes and materials are not available at the scheduled starting times.

We reviewed 300 time cards for the month of February 1968 and found that these cards did not properly reflect activities in the computer room such as delays between jobs, idle periods, and reruns, because of the current recording procedures. Since these activities are not shown on the time cards, they do not appear on the monthly utilization run reviewed by management.

We found that the time clock was used for only about 60 percent of the 600 beginning and ending times for the jobs while times were changed or handwritten for 27 percent of the times, and nothing was recorded for 13 percent of the times. The utilization run, however, shows a beginning and ending time for each job during the month.

Our observation of computer room activities revealed that computer operators punched the ending time for one job and the starting time for the next job regardless of whether the next job was ready for processing. We noted several such instances when jobs did not begin immediately and the computer was idle. These idle periods resulted from the unavailability of job materials or the absence of the computer programmer at the scheduled starting time. Since the time card had already been punched, the idle time was not identified on the utilization run.

We also found that computer time for reruns was not identified on the time cards or utilization run for management's review. Reruns may be caused by improper programming, operator errors, or machine failure. Although some rerun time is inevitable, large amounts of time spent for rerunning programs should be reviewed by management to ascertain the reasons for the reruns and to take any necessary corrective action.

We believe that management could better evaluate the activities of its computer operations if the daily schedules and the utilization run were compatible and if all delays, idle periods, and reruns were identified on the utilization run.

Recommendations

We therefore recommend that Maritime, to improve the efficiency of its computer room operations, (1) provide a detailed schedule for the operators and tape librarian sufficiently in advance of the scheduled starting times, (2) prepare daily schedules and utilization runs on a compatible basis, and (3) identify all delays, idle periods, and reruns on the utilization run. We also recommend that the time clock be used to record all beginning and ending times for computer jobs and that management review the cards occasionally for handwritten or altered times and require an explanation for such changes.

NEED FOR IMPROVED ADMINISTRATION
OF COMPUTER PROGRAMMING CONTRACTS

In 1966, the Maritime Administration entered into two contracts with an outside programming firm for the preparation of computer programs to process certain cargo statistics gathered by the Division of Trade Studies, Office of Government Aid. The contracts were initially scheduled for completion within 6-1/2 months of the contract dates. At the time of our review, however, the computer programs were not complete although the contractor had been working on them for over 29 months. As a result of the delay in providing workable computer programs, unprocessed source data has been accumulating over the 29-month period in the Division of Trade Studies; reports which, according to Maritime officials, are needed in connection with certain Maritime activities are not available; and the computer system is not being fully utilized for the trade statistics program which was used as the justification for its acquisition.

We believe that Maritime's administration of these contracts was ineffective because of

- a lack of written documentation to support oral agreements between the contractor and the Office of Data Systems to modify contract requirements.
- the absence of contract provisions requiring the submission of periodic status reports.
- the practice of the Office of Data Systems of approving progress payments with no assurance that work had been performed.

--inadequate documentation to support extensions of time for completion of the contracts and increases in contract costs.

--inadequate monitoring of activities of the contractor during the contract period.

The Division of Trade Studies is responsible for, among other activities, collecting, analyzing, and reporting information concerning cargo, commodity, traffic, and ship movements for use in connection with certain maritime activities for the Maritime Administrator and for other offices of the Maritime Administration. The Division collects and processes information filed by ship operators with respect to domestic and foreign trade, and also maintains statistical data on merchant fleets of the world.

Prior to installation of the Honeywell H-200 system in April 1966, the Division's statistical information was sorted and reports were prepared through the use of punched card equipment and an IBM 1401 central processing unit. The recommendation to acquire the Honeywell tape-oriented computer system was based primarily on the ability of ADP equipment to sort and process data from magnetic tape faster and more efficiently than from punched cards. The new computer system would therefore reduce storage and manpower costs while improving Maritime's statistical processing activities.

After the Honeywell system was installed, Maritime found that its existing IBM punched card programs could not be converted for use on the tape-oriented Honeywell system. On June 1, 1966, the former chief, Office of Data Systems, requested permission from the Budget Officer to contract with an outside firm for the services of programmers to prepare the

necessary computer programs. He stated that the work would require about 2 to 2-1/2 man-years of effort and that he would like to have the major portion of the system completed by September 15, 1966. He further stated that, if the programs were written by Maritime personnel, the programs could not be completed until some time during the first half of fiscal year 1968.

The Maritime Administration entered into a contract with B-R Data Systems, Inc., on August 16, 1966, for a fixed price of \$19,500 to provide computer programming services for Maritime's trade statistics program. The contract work was to be completed within 6-1/2 months of the date that the contract was awarded. On September 19, 1966, Maritime entered into another contract with B-R Data Systems, Inc., for additional work on the trade statistics program. The contract was written on a time-and-materials basis, was not to exceed a cost of \$13,800, and was to be completed within 6 months. Subsequent amendments to the latter contract increased the contract limitation to \$37,892 and changed it to a fixed price contract. As of February 28, 1969, the completion date of both contracts—amounting to a total of \$57,392—had been extended several times. Neither contract was complete as of that date.

Contract administration is divided among several operating and administrative units in Maritime whenever a contract is executed for the development of computer programs. The Chief, Purchasing Branch, Division of Procurement, serves as the contracting officer. He executes the contract and any subsequent amendments. The Office of Data Systems, during the contract period, is responsible for the technical aspects of the contract and the operating unit (in this case, the Division of Trade Studies)

is responsible for approving the output from the computer programs. Payments are made by the Office of Finance after receiving administrative approval from the Office of Data Systems.

Our review of the administration of these contracts did not include discussions with the contractor or an examination of the contractor's records.

NEED TO REVIEW CONTRACTOR'S PROGRESS DURING
PERFORMANCE OF THE CONTRACT REQUIREMENTS

We found no evidence that Maritime reviewed the contractor's work although several progress payments had been made during the contract period, the contractor had been granted eight extensions of time to complete the work as of February 28, 1969, and the cost of the time-and-materials contract had been increased from \$13,800 to a fixed price of \$37,892. In addition, we found that Maritime did not require the contractor to submit progress reports on a regular basis.

We were informed by an official of the Office of Data Systems that reviews of the contractor's work were not made prior to granting approval for payment of the contractor's invoices for progress payments.

We found that the contractor did submit five progress reports during the 29-month period from September 1966 through February 1969. However, none of the five reports were submitted during the first 15 months, during which Maritime made progress payments of \$15,000 on the fixed price contract and \$19,531 on the contract then executed on a time-and-materials basis.

We noted that requests for seven of the eight extensions of time were initiated by the contractor and in six cases the contractor was in default for periods ranging from 1 to 7 months before requesting the time

extension. The files do not show that Maritime contacted the contractor at the contract deadlines to ascertain his reasons for not meeting the deadlines.

Further evidence that Maritime was not fully apprised of the contractor's activities during the performance period is illustrated by the fact that when the contractor requested a time extension in February 1968, after having been in default for 7 months on the fixed price contract and 6 months on the contract then executed on a time-and-materials basis, the contractor reported that the fund limitation of \$28,200 then existing for the time-and-materials contract had been reached 6 months earlier in August 1967. The contractor also reported that he had performed additional work valued at about \$13,159 through December 1967 when work was suspended on the contract. Maritime subsequently agreed to reduce the requirements of the fixed price contract, and pay an additional \$9,092 for work under the time-and-materials contract, and the contractor agreed to the conversion of the time-and-materials contract to a fixed price contract.

NEED FOR FORMAL RECORD OF AGREEMENTS WITH
CONTRACTOR AND DOCUMENTATION TO SUPPORT
ACTIONS TAKEN DURING PERFORMANCE OF THE CONTRACT

We found that agreements and proceedings at meetings between Maritime and the contractor as well as actions taken during the contract period were not fully documented in Maritime's contract files.

Maritime's contract files show that the fixed price contract was issued to B-R Data Systems, Inc., on the basis of the proposal that the firm submitted to Maritime. The files also show correspondence from four other firms regarding information on Maritime's computer programming

requirements. We noted references in the correspondence to a request for proposal and a letter dated July 11, 1966, which was sent to the various firms. Although these documents apparently served as a basis upon which the contractor submitted his proposal, copies were not included in the contract files, and Maritime officials could not locate copies or explain why they were not in the contract files.

The fixed price contract contains a reference to modifications of the scope of the contract as agreed upon by the former chief, Office of Data Systems, at a meeting held on August 3, 1966. We were informed by officials in the Office of Data Systems that a formal record of the meeting was not available and that no one currently in Maritime knows what modifications were agreed upon at this meeting.

We were also informed by Maritime officials that, in addition to this meeting, the contractor's personnel were continually meeting with personnel from the Office of Data Systems and the Division of Trade Studies to discuss problems and progress concerning the contracts. We found no documentation of these meetings in Maritime's contract files.

As previously stated, amendments to the contracts are issued by the contracting officer in the Purchasing Branch. In discussing matters concerning these contracts with him, he informed us that he was not aware of the delays and extensions that had occurred under these contracts. He stated that he must rely on the program manager to notify him if he has any problems with a contractor and for assurance that contract amendments are needed before he issues them.

We noted that several contract completion dates were extended by contract amendments which were not adequately supported by documentation in

the contract files to show that the extension was beneficial to Maritime. The documentation for each of these extensions consisted of a letter request from the contractor and a notation of approval added to the letter by the Office of Data Systems. The letters from the contractor gave only broad reasons for requesting the time extension such as "as a result of unforeseen [sic] complications * * * the specified reports will take longer than anticipated" and "Due to the workload associated with * * * Amendment No. 2 * * * we are unable to complete all work prior to the existing contract completion date * * *." We noted that one request gave no reason for requesting the extension. The notations of approval from the Office of Data Systems did not provide further information in these cases.

CONCLUSIONS

We believe that Maritime has not sufficiently monitored the contractor's activities during the terms of the two contracts to ensure timely completion of needed computer programs. Although we did not evaluate the reasonableness of the time extensions and other contract amendments, the periods of time that the contractor was in default before the contracts were extended, the lack of review of the contractor's work at the contract deadlines and before partial payments were made, and the absence of adequate progress reports on a regularly scheduled basis during the contract period indicate, in our opinion, that Maritime may not have been fully aware of the contractor's activities at all times during the contract performance period.

Time-and-material contracts, by their very nature, provide little incentive for the contractor to perform work in the most efficient and economical manner since the amount of money he receives depends on the

number of hours and amount of materials that he uses. It is particularly important, therefore, that the officials responsible for administering the contract continuously monitor the contractor's activities to ensure that they are performed in accordance with the provisions and scope of the contract and that unnecessary costs are avoided. Although such contracts usually include time and fund limitations, inadequate monitoring may result in failure to identify and question unreasonable extensions of time and expenditures of funds. We believe further that all agreements, activities, and actions taken should be supported by written records so that officials of the various units in Maritime which are involved in the awarding, administering, and paying of contracts can be fully and currently informed when making decisions concerning contract activities.

RECOMMENDATIONS

We recommend that Maritime, to receive maximum benefits from its ADP equipment and to improve the administration of contracts (1) require the operating unit responsible for administration of the contractors' activities to monitor the contractors' work at all times, and, when applicable, ascertain the reasons for contractors' failure to meet completion dates; (2) include in future contracts of this type a requirement for submission of progress reports on a regularly scheduled basis; (3) require that all agreements and proceedings at meetings concerning changes in the scope of the contract work be documented and included in the permanent contract files; and (4) require contractors to submit adequate justification for any requests to extend or amend a contract.

LEASE VERSUS PURCHASE OF ADP EQUIPMENT

On September 17, 1968, we submitted a letter to the Acting Administrator requesting his comments on the desirability of Maritime's purchasing the ADP equipment currently leased from Honeywell, Inc. Our examination showed that, based on a minimum equipment life of 5 years, Maritime would have realized savings of about \$21,700 from May 1, 1968, to the expiration of the 5-year life of each system component if all of the components except the printer and card reader were purchased in lieu of continuing the present lease arrangement. After expiration of the 5-year period, Maritime would realize savings of about \$68,200 annually if all system components except the printer and card reader were purchased.

Since purchase costs would have exceeded lease costs for the printer and card reader by about \$4,100 and \$900, respectively, from May 1, 1968, to the expiration of the 5-year life of each system component, net savings would have been about \$16,700 during this period if Maritime had purchased all of the system components. Annual savings of about \$73,900 would be realized after expiration of the 5-year period for each system component if all of the present components were purchased.

In his reply dated November 27, 1968, the Acting Administrator stated that Maritime was reviewing its current and projected ADP requirements and was anticipating a substantial increase in its ADP program. As a result of this expected increase, he stated that Maritime planned to change its present computer configuration by March 31, 1971. The Acting Administrator further stated that, based on this plan, an analysis of lease versus purchase costs for the equipment from January 1, 1969, to March 31, 1971, had shown that the cost of purchasing at January 1, 1969, would exceed the

cost of leasing during that period by \$31,269. Maritime considered it inadvisable, therefore, to change its method of procurement of ADP equipment at that time. The Acting Administrator stated, however, that, if future studies show that it is economically more advantageous to purchase the equipment, funding requirements would be included in the 1971 budget.

CONCLUSION

We have analyzed the comments received from the Acting Maritime Administrator concerning the desirability of Maritime's purchasing its ADP equipment and agree that Maritime would incur excess costs of about \$31,000 by purchasing the system as of January 1, 1969, over leasing it from that date through March 31, 1971, when it plans to change its computer configuration. We have also noted that the Department of Commerce recognizes that a reutilization potential may exist for the Honeywell equipment within the Federal Government, and that the Department plans to report release of the equipment to GSA in accordance with current regulations so that another Government agency can obtain the benefits of the rental payment credits accrued by Maritime.

We believe that, in any future equipment replacements, appropriate consideration should be given to all methods of acquiring ADP equipment, including purchase, lease, and leaseback arrangements.

SCOPE OF REVIEW

Our review of the procurement and utilization of automatic data processing equipment by the Maritime Administration was conducted at Maritime's headquarters, Washington, D. C., and included a review of Maritime's feasibility studies and other documentation supporting its decision to lease ADP equipment to ascertain whether this resulted in the most economical method to procure the equipment.

Our review of the operations within the Office of Data Systems included an examination of the procedures and controls over (1) the use of magnetic tapes and the operations of the magnetic tape library; (2) the daily operations in the computer room; (3) classified data, tapes, and reports; and, (4) recording the utilization of the computer system. We also reviewed the operations of the keypunch units and the internal controls used over source data in these units.

We reviewed the controls and procedures used to safeguard source data and documents during transmittal between the Office of Data Systems and the operating units of the Maritime Administration. We also reviewed the utilization of computer output and reports in selected operating units.

In addition to our review of Maritime's use of its computer system, we reviewed the procedures and controls over reimbursements for the use of Maritime's computer by other Government agencies.

We examined into the administration of two contracts for computer programming services to ascertain the reasons for numerous delays and extensions of the contracts and the effect that the delays have had on the operations of the cognizant operating program for which the computer programs were needed.