REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Why NASA's Property Accounting And Control System Should Be Improved

This report describes how major deficiencies in the operation of NASA's property accounting system have weakened the agency's management control over equipment valued at millions of dollars and, in some cases, have resulted in the purchase of equipment identical to idle items already on hand.

Many of the deficiencies cited in this report could have been prevented if NASA had responded effectively to findings and recommendations included in previous GAO and NASA internal audit reports. Actions being taken to improve NASA's equipment management and accounting systems are cited in the report.

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

B-169658

To the President of the Senate and the
Speaker of the House of Representatives

This report describes how major deficiencies in the operation of the National Aeronautics and Space Administration's property accounting system have weakened the agency's management control over equipment and materials valued at millions of dollars.

We made this review pursuant to our responsibilities under the Federal Property and Administrative Services Act of 1949. This act directs the General Accounting Office to examine executive agencies' property accounting systems to determine the extent of their compliance with the property accounting principles and standards prescribed by the Comptroller General and to report to the Congress failure to comply with these principles and standards or to adequately account for property.

We are sending copies of this report to the Director, Office of Management and Budget; the Administrator, National Aeronautics and Space Administration; and the Administrator of General Services.

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
NASA	National Aeronautics and Space Administration

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

WHY NASA'S PROPERTY ACCOUNTING AND CONTROL SYSTEM SHOULD BE IMPROVED
National Aeronautics and Space Administration

D I G E S T

NASA has equipment and material which cost over $4 billion in its custody.

For several years, GAO and NASA auditors have reported that the property accounting and control system did not provide sufficient control over this equipment to minimize losses and prevent purchases of unneeded items.

In the report, GAO states that NASA still has problems with its property accounting and control system. GAO's review showed that:

--Three NASA centers did not record in property and accounting records equipment and material estimated to cost at least $144 million for up to 10 years after receipt. Of the $144 million, about $35.5 million was not recorded until after GAO brought to NASA officials' attention that the equipment had not been recorded in either the property or accounting records. (See p. 6.)

--NASA's property accounting system showed millions of dollars worth of the equipment as in use when in fact it was idle and available for use by others. Consequently, in some cases, equipment identical to that already available was bought unnecessarily. (See p. 19.)

--Three NASA centers and two contractors lost over 4,500 items valued at about $3.3 million without adequately determining the causes, thereby impairing the ability to prevent further losses. (See p. 34.)

--NASA's procedures for inventorying equipment need improvement. Weaknesses in the procedures contributed to problems in property control. (See p. 38.)

GAO made a series of recommendations designed to effect needed improvements in the agency's property accounting and control systems. NASA acknowledged that certain deficiencies in practice have persisted at some locations and advised GAO of its plans to correct these and other remaining underlying weaknesses during fiscal year 1976. NASA proposed to:

--Emphasize the importance of the role of line managers and tighten discipline over operating practices in matters concerning property management.

--Have each NASA center make a self-assessment of its property management.

--Have NASA inspection teams verify that each center carries out its property management responsibilities in accordance with established standards.

--Establish a schedule of corrective actions for any deficiencies found and require each center to report progress until the corrective actions are completed.

--Make property management reviews at each center at 2-year intervals. (See pp. 42 and 43.)

These and other measures designed to insure adherence to property management and accounting procedures indicate that NASA's management is taking aggressive action to improve its property accounting and control system. Its reply, however, does not, in all cases, address specifically the deficiencies described in this report.

GAO, therefore, recommends that the NASA Administrator direct his internal audit staff and inspection teams to review actions taken to correct the deficiencies and direct responsible officials to give the property management and accounting functions continuous attention warranted by the sizeable investment. (See p. 43.)

CHAPTER 1

INTRODUCTION

The National Aeronautics and Space Administration (NASA) was established by the National Aeronautics and Space Act of 1958 to conduct various activities including (1) research into and solution of problems of flight inside and outside the earth's atmosphere, (2) the development, construction, testing, and operation for research purposes of aeronautical and space vehicles, and (3) such other activities as may be required for space exploration. To carry out its tasks, NASA and associated contractors acquired a wide variety of Government-owned personal property ranging from supplies to sophisticated test equipment and space vehicles.

On June 30, 1974, the reported value of this property was about $4.3 billion. The $4.3 billion in property included equipment valued at $3.2 billion and materials valued at $1.1 billion.

We reviewed NASA's personal property accounting systems in operation at the Goddard Space Flight Center, Greenbelt, Maryland; the Johnson Space Center, Houston, Texas; and the Marshall Space Flight Center, Huntsville, Alabama. The following table shows that on June 30, 1974, the reported value of NASA's personal property held by these installations and their 462 associated contractors was about $2.7 billion, or about 63 percent of NASA's total inventory of $4.3 billion.

Type of property	Value				
	Goddard	Johnson	Marshall	Contractors	Total
	(millions)				
Equipment	$647.0	$351.7	$245.8	$ 656.6	$1,901.1
Materials	4.0	8.5	239.1	566.1	817.7
Total	$651.0	$360.2	$484.9	$1,222.7	$2,718.8

The Federal Property and Administrative Services Act of 1949 requires the Comptroller General to prescribe the principles and standards for property accounting to be observed by executive agencies. It also provides that the General Accounting Office (GAO) examine the agencies' property accounting systems and report to the Congress failures to comply with these principles and standards or to adequately account for property.

The Budget and Accounting Procedures Act of 1950 holds the head of each agency responsible for establishing and maintaining adequate systems of accounting and internal control. This act also requires that the Comptroller General approve executive agency accounting systems when he deems them adequate and in conformity with the prescribed principles and standards.

The Comptroller General approved NASA's accounting principles and standards and system design in 1969. However, at that time the Comptroller General pointed out that in practice NASA's system contained major weaknesses relating to property accounting. On several occasions GAO has examined NASA's property accounting system and has reported the need for improvement. These GAO reports are discussed in this report.

NEED TO ACCOUNT FOR PROPERTY

Adequate accounting for property held by Federal agencies is important because public funds are invested in such resources. This investment obligates the management to be able to account for these resources and to procure, use, and manage them properly and effectively. Accurate and reliable financial and quantitative information on property, for use by internal management and for preparing financial reports for the Congress and others, can be obtained only from a properly designed and operated system of accounts and related procedures.

NASA's accounting system requires that all NASA-owned personal property be recorded in general ledger asset accounts on a consistent basis and in accordance with legal requirements and generally accepted accounting practices. These financial accounts, which function as control accounts, are kept by NASA installation financial officers and are supported by subsidiary accounting records. Installation property officers and contractors having custody of NASA property keep the more detailed property records showing the quantity, cost, and location of items in the inventory.

The following is a brief description of NASA's system for controlling personal property held by its installations and contractors.

NASA-HELD PROPERTY

NASA's accounting policy requires that an equipment item be recorded when received and controlled as a capital asset if it

--has an estimated service life of more than a year,

--can be readily identified when in use and will not be incorporated into other equipment or systems,

--generally has a unit cost of $500 or more excluding freight and installation costs, and

--will not be consumed in an experiment.

Each capital item is assigned a control number and identified with a decal, tag, or other marking designating it as NASA property. Capital equipment is subjected to periodic physical inventory, and the responsible property custodian may be held financially liable for equipment lost because of his negligence.

Materials held in inventory are controlled by the installation property officer's organization and are also subjected to periodic physical inventory. However, this control, as well as the financial officer's control, is relinquished when the materials are issued for use.

CONTRACTOR-HELD PROPERTY

NASA installations are required to keep financial accounts for NASA property held by associated contractors. These accounts show the cost and general categories of property held and are updated twice a year on the basis of contractors' reports.

The contractors are required to keep financial accounts and detailed records on NASA-owned property in their possession. The property administration function, which the Department of Defense usually does for NASA, includes reviewing the contractor's property accounting system to insure that NASA property is controlled, used, and reported in accordance with contractual requirements.

NEED FOR IMPROVED ACCOUNTING AND CONTROL PREVIOUSLY REPORTED TO MANAGEMENT

In recent years GAO has reported numerous weaknesses in the operation of NASA's property accounting system and has recommended ways to strengthen it.

1. In August 1968 GAO reported that Goddard did not always upon receipt record equipment in the financial and detailed property records and had not attempted to locate property known to be missing

for several years. GAO pointed out that the need for better control of equipment had been brought to NASA officials' attention in 1964 and, although corrective measures were promised, satisfactory action had not been taken. (B-164674, August 28, 1968.)

2. In November 1968 GAO reported that the procedures and practices of a NASA contractor did not provide adequately for complete, current, and accurate accountability data and that, in certain cases, accountability over materials was lacking completely. Also, some of the contractor's departments did not record the location and status of materials and, as a result, could not (1) readily locate the items, (2) readily determine the availability of items for other valid requirements, and (3) promptly report materials as being excess. (B-158390, November 8, 1968.)

3. In July 1970 GAO reported that the control and use of plant equipment in the custody of a NASA contractor were inadequate because written procedures were not being followed. (B-158390, July 31, 1970.)

4. In August 1970 GAO reported that the Kennedy Space Center had not established accountability for equipment costing over $320 million until as long as 4 years after it was received and that equipment accountability problems also existed at Marshall and the Manned Spacecraft Center (Johnson). Also losses were not reported and investigated in a timely manner and physical inventory procedures were unsatisfactory because (1) inventories were taken by individuals having custodial responsibility for the equipment, seriously weakening internal control and reducing management's reliance on the results of the inventories and (2) property custodians were furnished listings of equipment to be counted. GAO considered the use of listings to be unacceptable because of the tendency to look only for equipment listed rather than to identify and count all equipment. (B-169658, August 11, 1970.)

In addition to the GAO reports, NASA internal audit activities, particularly the NASA Management Audit Office, have repeatedly called to management's attention weaknesses in the control and accounting for property.

The need for better control and accounting for property was discussed at the Senate Committee on Appropriations hearings on April 3, 1974. The findings of our review demonstrate the need for further improvement.

CHAPTER 2

MILLIONS OF DOLLARS WORTH OF PROPERTY NOT RECORDED IN ACCOUNTING RECORDS

At the Goddard, Johnson, and Marshall Space Centers, capital equipment and other property costing at least $144 million was not recorded in the accounting and related detailed property records for up to 10 years after receipt. Of the $144 million, about $96.6 million had been recorded before our review although belatedly. About $35.5 million of equipment and material was not recorded until after we brought to NASA officials' attention that the equipment had not been recorded in either the property or accounting records. An additional $11.9 million remained unrecorded on June 30, 1974, although officials had been aware of its existence for several years.

Further, NASA's internal audit reports and reports of physical inventories show that other space centers have had similar problems in accounting for large quantities of capital equipment.

On the basis of our review, we believe that substantial amounts of additional equipment and material have not been promptly placed under accounting control.

MARSHALL SPACE FLIGHT CENTER

At Marshall over 14,000 items of capital equipment and other property valued at about $90 million had not been recorded in the accounting and related detailed property records for as long as 8 years after receipt. Included in the $90 million was equipment and material valued at over $35 million which Marshall officials recorded only after we brought it to their attention. The property included items ranging from voltmeters, recorders, amplifiers, and cameras, costing a few hundred or thousand dollars each, to space vehicle simulators costing several million dollars each.

The following table shows examples of Marshall's failure to promptly record property when received. Photographs of two of the items are on page 10.

Item name	Approximate value	Date received	Date recorded
Space vehicle simulator	$7,000,000	12/65	8/74
Converter	6,200	1/68	6/71
Laser	53,200	5/68	4/71
Magnetic tape recorder	20,000	8/70	4/71
Oscilloscope	3,500	8/71	8/74
Amplifier	1,450	8/71	8/74
Space flight simulator	4,353,800	7/73	4/74
Carbon monoxide detector	80,000	7/73	8/74
Laser ranging system	50,000	9/73	8/74
Vacuum pump	1,500	11/73	4/74

Several of the items in the above schedule are examples of the many items, which we found through examination of receiving reports, observation, and other audit procedures, not recorded in the accounting and related detailed property records. Others in the schedule were recorded as a result of disclosure by NASA personnel that the equipment was not recorded in the accounting and detailed property records.

JOHNSON SPACE CENTER

Similarly, Johnson did not account for property worth about $16.2 million until as long as 3 years after it was received. In addition, NASA, aware for several years of unrecorded equipment costing about $11.8 million, still had not recorded it when we completed our review at Johnson. For example, Johnson acquired a skylab trainer in October 1971 estimated to cost $9.6 million but had not recorded the item as of June 1974.

Further, late in 1969 and early in 1970, Johnson obtained from NASA contractors boxes of electronics and related equipment the estimated value of which, according to a NASA

internal audit staff report in 1973, ranged from $3.1 million to over $15 million.

About 3 years later, the Johnson property officer started to account for the property. In November 1973 the property was recorded in Johnson's financial records by a lump-sum entry, but it never was recorded in the detailed property records. This property was redistributed to NASA contractors and to the Air Force in 1974.

We also observed that much of the equipment which Johnson did not properly record was similar to the type we found unrecorded at the Manned Spacecraft Center (now Johnson) and described in our August 11, 1970, report (B-169658). Photographs of some of the unrecorded equipment at Johnson are on page 11.

GODDARD SPACE FLIGHT CENTER

At Goddard we identified about 5,500 items of capital equipment which had not been accounted for properly in the accounting and related detailed property records. Some of this equipment, which was valued in excess of $26 million, was not recorded in Goddard's accounts for as long as 10 years after receipt. Included in this amount were equipment items valued at about $113,000 which Goddard recorded only after we brought them to the attention of Goddard officials. The $26 million in equipment consisted of a wide variety of items ranging from an adding machine, amplifier, and generators to a high-intensity solar simulator valued at about $144,000. An illustration of Goddard's problems in establishing accountable control over its equipment is presented below.

In July 1971 Goddard transferred five items of equipment valued at over $10,000 to a contractor and deleted them from the Goddard property records. The contractor returned the items to Goddard in September 1971, but Goddard failed to record them in its records. Auditors brought this to the attention of Goddard management in October 1972, and Goddard management agreed to correct the situation. Then, in January 1973, four of the same five items were again deleted from the property records and sent to a contractor. When the contractor returned the items to Goddard in March 1973, the items again eluded the Center's receiving function and once more were not recorded in Goddard's accounting and property records.

Photographs of some of the items which Goddard failed to record are on page 12. As of June 1974, Goddard had recorded all the $26 million in equipment except 22 items

valued at about $83,000 and was in the process of recording these.

OTHER NASA CENTERS

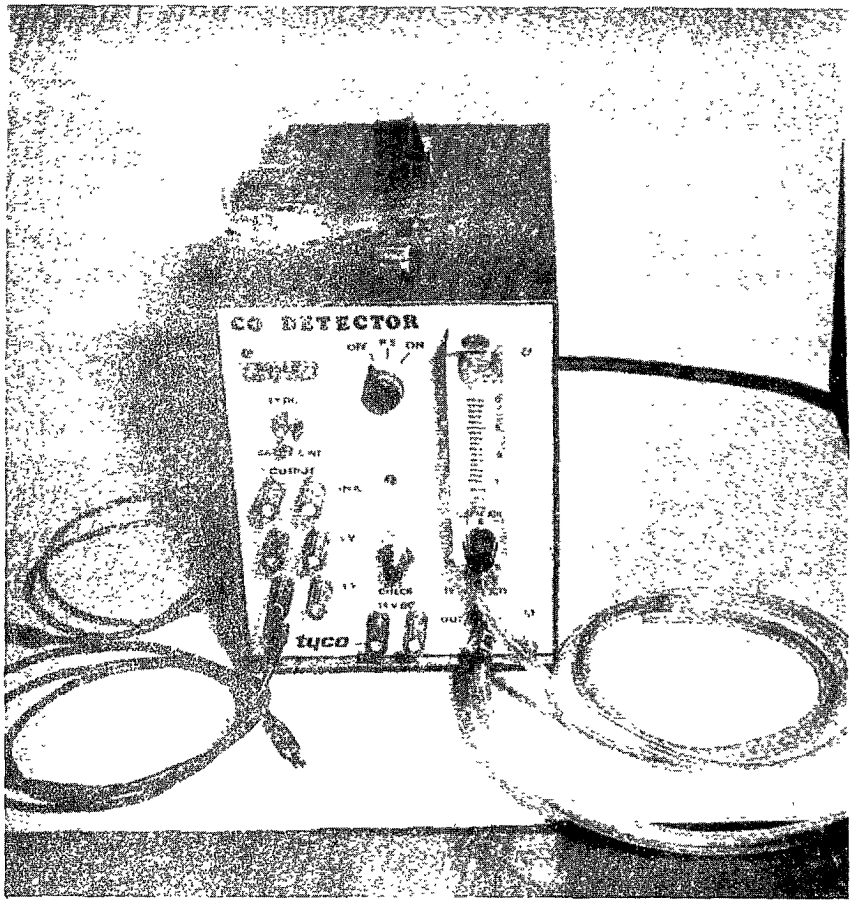
We observed that over recent years internal auditors have reviewed equipment accountability at several NASA centers other than Goddard, Johnson, and Marshall. The related audit reports and reports of physical inventories indicate that accountable control of equipment is lacking throughout NASA. In July 1974, for example, NASA's Director, Supply and Equipment Management, brought to the attention of NASA field activities that annually a substantial number of equipment items continued to be found "on station" which were not recorded in the accounting and property records. He pointed out that definitive procedural guidance was necessary to reduce the number of unrecorded and uncontrolled items.

IMPACT OF NOT RECORDING PROPERTY WHEN RECEIVED

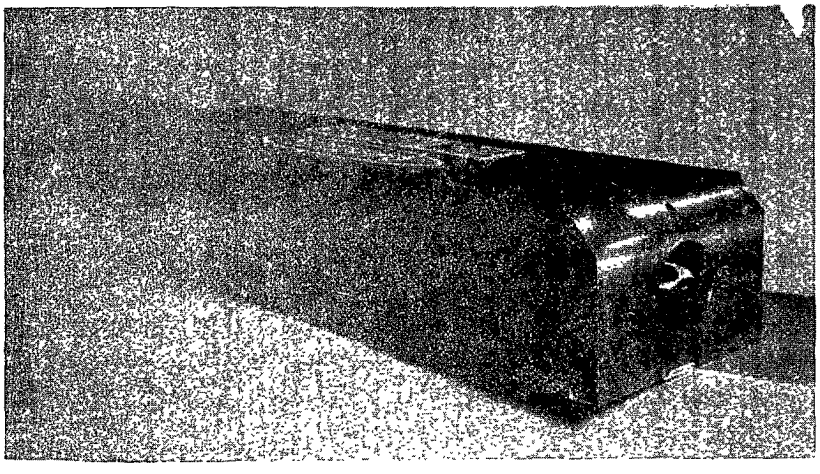
Complete and accurate detailed property and accounting records help to prevent property losses and unauthorized use of property, as well as to insure that items on hand will be used to meet needs instead of buying new items. These matters are dealt with more fully in later chapters. Below is an illustration of what can happen when property is not promptly recorded.

In December 1970 a Marshall employee who had been working at a nearby university returned to Marshall. NASA property which he had been using at the university was returned to Marshall at about the same time. The contracting officer did not coordinate the transfer of the property with the installation property officer, and the property therefore was not recorded upon its return. Some of the property was found and recorded in mid-1971 by the Marshall physical inventory team but some was not. Since this property was not recorded, it was not accounted for during the inventory because of the procedures used, although some of it may have been missing at the time.

In 1974 after we brought this matter to the attention of the property officer, some of the remaining unrecorded property was located and brought under accountable control. But five items of equipment valued at about $5,700 could not be found, and an investigation of the losses was begun by appropriate authority. If the property officer had not been informed, the losses would never have been questioned.

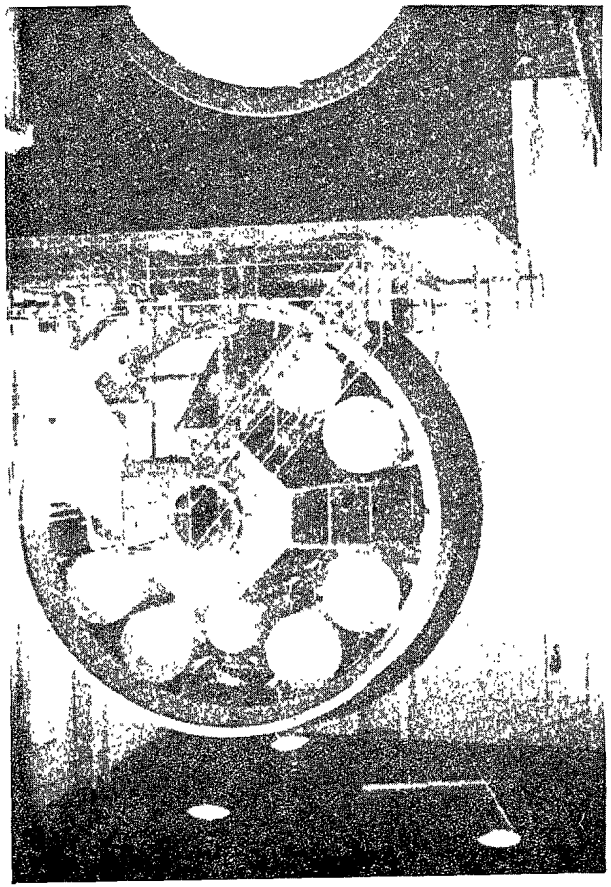


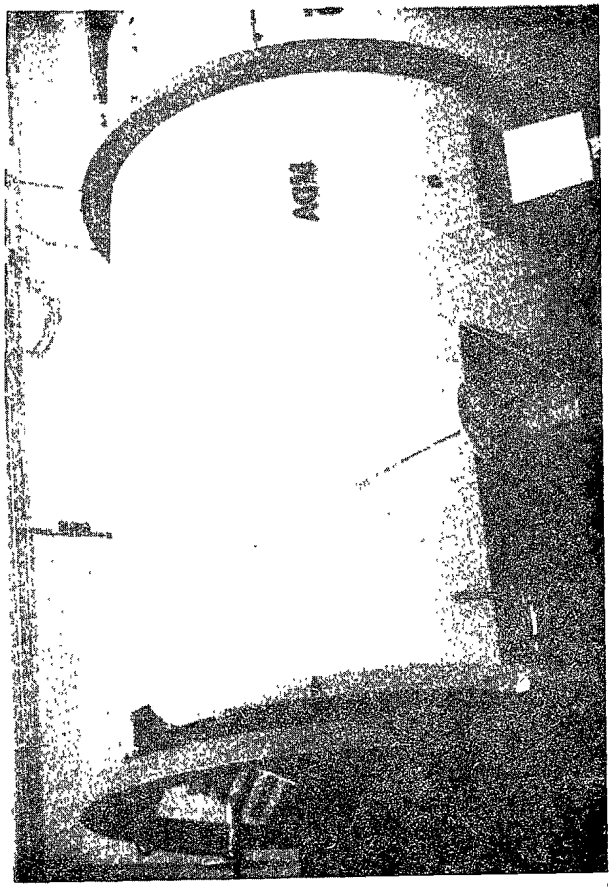
Carbon monoxide detector. Approximate value: $80,000.



Xenon Laser. Approximate value: $50,000.

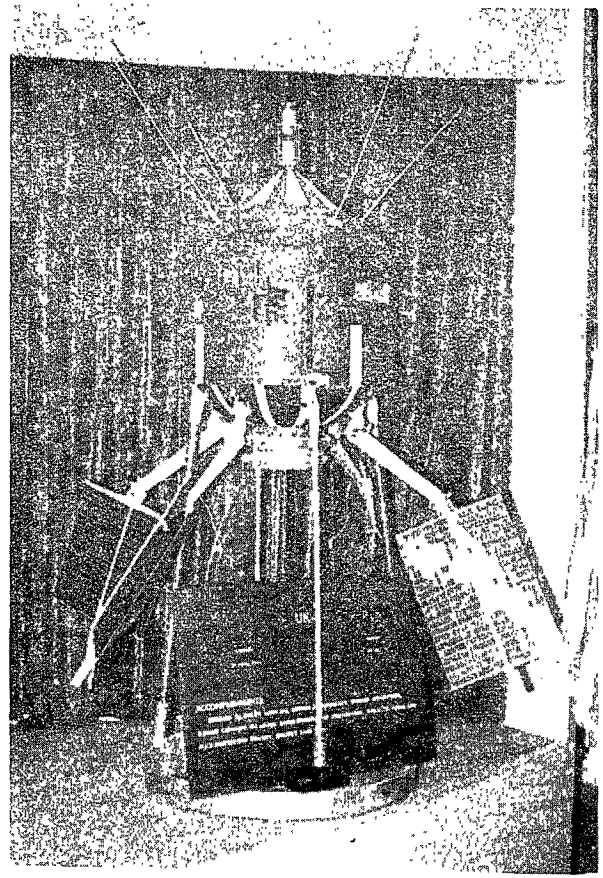
Examples of unrecorded items at Marshall.



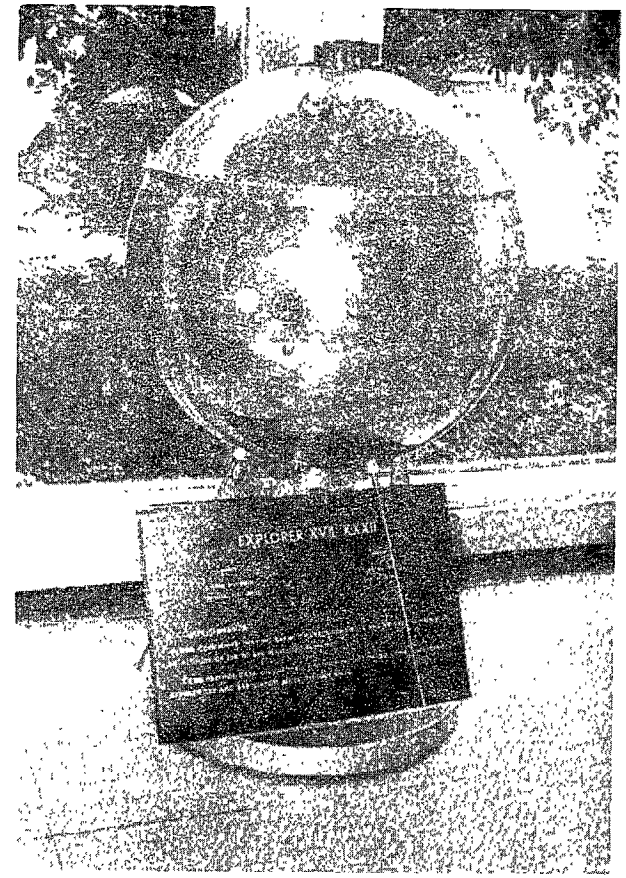


Components of Skylab trainer system. Estimated value: $9.6 million.

Examples of unrecorded items at Johnson.



UK- # satellite model.
Approximate value: $6,000.



Explorer satellite model.
Approximate value: $4,000.

Examples of unrecorded items at Goddard.

CAUSES OF FAILURE TO RECORD PROPERTY

The failure to properly and promptly record capital equipment in NASA's property accounting records resulted primarily from:

--Improper classifications of equipment as expendable materials on the basis of fund codes, supply codes, and other factors rather than on the basis of prescribed NASA criteria.

--Improper classifications of equipment as expendable materials by individuals not authorized to classify the property.

--Inadequate coordination between NASA contracting officers and property officers on transfers of Government-owned equipment from contractors' plants to NASA installations.

--Inadequate cooperation between employees having custody of equipment and those accountable for the assets.

--Deficient physical inventory procedures.

Improper classifications of equipment

Employees of the Marshall property officer's organization were not recording equipment when received because the funds for acquiring the equipment had been allocated under an object class code other than the code normally used for equipment purchases. By testing selected transactions we identified 26 items valued at about $1.6 million which were received at Marshall from June 1973 to February 1974 but which were treated as expendable material rather than capital equipment on the basis of the related fund code. Consequently, these items were expensed rather than capitalized and recorded in the property accounting records. We also found that these erroneous classifications were made by employees in the property officer's organization not authorized to classify the property. After we brought to NASA officials' attention the failure to properly record these items, appropriate accountability for the items was established.

The employees told us that the absence of unit prices on the receiving reports also contributed to the failure to record some of the items. In our opinion this is not a justifiable reason for not recording the assets in the

accounting records. Although unit prices or reasonable estimates are essential in judging whether items meet the capitalization criteria, items should not be treated as expendable on the basis of missing price data. For example, the cost of one of the items not recorded because of the absence of a unit price was later estimated at $50,000. At the time this item was received, the NASA criterion for capitalizing equipment was $200.

Other items were not recorded because they were considered to be included in the Federal supply classification for space vehicles and related equipment; NASA employees apparently interpreted this classification to mean that the items should be charged to expense rather than capitalized in the property accounting records. For example, in June 1973 Marshall received a low-light-level camera and related control unit but did not record it because of this interpretation. We later examined this equipment and discussed it with the user, an employee in Marshall's Space Sciences Laboratory. He told us that the equipment was being used to study the stars and other celestial bodies and that it met each of the NASA criteria for capitalization. We advised the property officer of this situation, and he had the camera equipment, valued at $60,000, tagged and recorded.

The employees who originally failed to record the equipment told us that it was Marshall's standard practice not to record in the accounting and property records items that were included in the Federal supply classification for space vehicles and related equipment. We identified about $23 million worth of such property that was unrecorded. After we brought this situation to Marshall officials' attention, the property was recorded in the accounting records in August 1974. However, according to Marshall employees, the Center had many millions of dollars worth of similar equipment which had not been recorded in the accounting and property records; two employees estimated this unrecorded equipment at $250 million.

Inadequate coordination and cooperation between responsible personnel

NASA contracting officers, contrary to NASA's written procedures, did not coordinate with the installation property officer the transfer of Government-owned equipment from contractors to the installation. In these instances, the equipment was delivered directly to the users, bypassing the installation receiving activity, and the receipt documents were not forwarded to the property officers' organization.

Further, the custodians did not notify property officers that the equipment had been delivered.

Inadequate cooperation between equipment custodians and property accounting representatives also led to breakdowns in establishing accountable control. Johnson received equipment in October 1971 estimated to cost $9.6 million, which was not recorded because technical personnel would not permit the responsible property representatives to enter the area where the equipment was located. The property representative finally obtained access to the area late in 1973 but still had not recorded the equipment as of July 1974 because of missing documentation. In another situation the responsible property representative did not record equipment upon receipt because no one would help her open the crates which contained the equipment.

Deficient physical inventory procedures

Deficient physical inventory procedures have also contributed to NASA's continuing problems in establishing accountable control over its equipment. In this regard, the principles and standards for accounting prescribed by the Comptroller General require that physical inventory procedures include investigations of the difference between recorded property and that actually found during the inventory to determine the related causes and identify necessary improvements. NASA installations were not making such investigations for equipment identified as unrecorded during physical inventories. A systematic investigation to identify the circumstances under which items were initially received but not recorded would, in our opinion, permit NASA to effectively strengthen its accountable control of equipment.

Lack of effective correction of deficiencies previously reported

Weaknesses in NASA's property accounting and control system have been reported to NASA management numerous times over the last 10 years. For example, in 1970 we pointed out that Marshall was not recording equipment because the funds for its acquisition had been allocated under an object class code other than the code normally used for equipment purchases. We also pointed out that the object class code was irrelevant, since it was not a part of NASA's capitalization criteria. Nevertheless, this same practice existed at Marshall in 1974. Also, much of the equipment which we found unrecorded at Johnson was similar to that which we reported in 1970 as not having been properly recorded at Johnson (then the Manned Spacecraft Center). Below is another illustration.

In response to an earlier review, NASA formed a task team to evaluate property accountability at its installations. The team visited Marshall in 1970 and pointed out that Marshall had a substantial amount of unrecorded property in its custody. In its draft report, the team cited as an example about $5 million worth of equipment and other property which had been returned to Marshall from contractors. This property was commonly referred to as residual stock. In commenting on this draft report in 1971, Marshall indicated to NASA Headquarters that it was taking corrective action. However, a report by the NASA Management Audit Office in July 1972 pointed out that the value of the unrecorded residual stock had increased to about $18 million. None of this property, however, was recorded until 1973 after we twice inquired into the accounting status of the property.

AGENCY COMMENTS AND OUR EVALUATION

NASA disagreed that there were widespread errors in making capitalization determinations. NASA asserted that (1) capitalization judgments were correctly made at acquisition against the agency's prescribed criteria and (2) the difficulty was caused by not redetermining classification of equipment when changed circumstances warranted capitalization. According to NASA, reclassification occurred when equipment originally acquired for space flight purposes later met capitalization criteria when put to another use. NASA also asserted that the property was recorded in its property records, if not the financial records, and control therefore was not lost.

The property identified in our report was not recorded in either the financial or the detailed property records. Some of the property was recorded only after we brought the matter to NASA officials' attention. NASA teams taking a physical inventory found other items unrecorded and then recorded them.

In our review we sought to identify the circumstances under which items were received but not recorded. We discussed the reasons for not recording the property with the individuals in the property officer's organization who made the decisions. Their explanations consistently showed that the decisions had been based on factors other than the NASA capitalization criteria. In addition, documentation evidencing receipt of some items, which could have been mistaken for flight equipment, clearly identified the items as nonflight equipment, and these items should have been recorded.

In other instances we found that individuals in the property officer's organization who were responsible for identifying capital equipment and recording it in the detailed property records were precluded from doing so because the equipment and related documentation had bypassed the property officer's organization. Another example to illustrate NASA's failure to establish accountability for its property is discussed below.

During our survey at Marshall early in 1973, we found unrecorded equipment (stored in warehouses) which appeared to meet NASA's capitalization criteria. We promptly brought this matter to Marshall officials' attention. Three months later we checked on the status of these items and were told that the items were being recorded. At that time Marshall officials furnished us copies of data processing forms purporting to be evidence that the items were being recorded. Later in the audit we checked to verify whether the items had been recorded and found that they had not. We again brought this matter to the Marshall officials' attention. They offered no explanation as to why the items had not been recorded except that the paperwork had been lost. Marshall officials then borrowed our audit workpapers to obtain the data necessary to record the equipment and finally recorded it in August 1974.

We did not attempt to identify all property NASA had not recorded. We only identified items and dollar value which we believed sufficient to demonstrate to NASA that it continued to have problems in establishing accountability for property.

In summary, we believe that this report accurately portrays some of the important causes underlying NASA's problems in establishing accountability for property in its custody. Other problems may exist which could be identified and corrected through conscientious followup by NASA management. NASA stated in its comments on the proposed report that:

--The agency's guidelines regarding capitalization will be reexamined to determine whether they may be made more useful.

--The agency's guidelines regarding the participation of property personnel in classifying property will be reexamined.

--Procedures requiring that all property enter a center through the property organizations will be tightened.

--The coordination of all offices with property responsibilities will be reexamined and, if necessary, strengthened at each center.

--An assessment will be made of the compliance with agency guidelines which require investigations to determine the origin and reasons for unrecorded equipment found in inventories.

CHAPTER 3

IMPROVED ACCOUNTING FOR UNUSED CAPITAL EQUIPMENT COULD RESULT IN SUBSTANTIAL SAVINGS

The NASA accounting system does not show that capital equipment costing millions of dollars is unused and available for redistribution. In some cases this has resulted in buying new items when unused equipment on hand could have been used instead. Unused equipment is located at both NASA's space centers and contractor plants.

UNUSED EQUIPMENT AT NASA CENTERS

At Goddard, Johnson, and Marshall we identified over 3,000 items valued at about $16.3 million which had not been used for as long as 5 years.

By examining the status of selected equipment in 3 of Marshall's laboratories and offices, we identified 1,110 items valued at about $10.3 million which had not been used for as long as 5 years. Also, 14 of Marshall's warehouses contained large quantities of idle equipment and materials, some of which was stored at the request of individuals who had since died or who were no longer NASA employees. We could not readily determine the number and value of these items of property. However, according to responsible Marshall officials, the property removed from 1 of the 14 warehouses included 110 truckloads of equipment and materials. The type of truck used is shown on page 21.

The 1,110 items in the 3 Marshall laboratories and offices included a variety of equipment, such as microscopes, voltmeters, amplifiers, magnetic tape recorders, oscilloscopes, and a window air conditioner. The most frequently identified items are those in the following table.

Description	Quantity idle
Strip-chart recorders	314
Amplifiers	314
Power supplies	105
Recording magazines	69
Speaker monitors	59

Photographs of some of this equipment are on pages 22 through 24.

Most of the 1,110 items of equipment had not been used for several years. The periods of idleness for the items were

Months	Percent
60 or longer	62
25 to 36	17
12 to 24	14
3 to 11	7

Similarly, by limited testing at Johnson and Goddard, we identified 1,914 items valued at about $6 million most of which had been idle from 1 to 3 years. Some of this unused equipment is shown on pages 25 to 27.

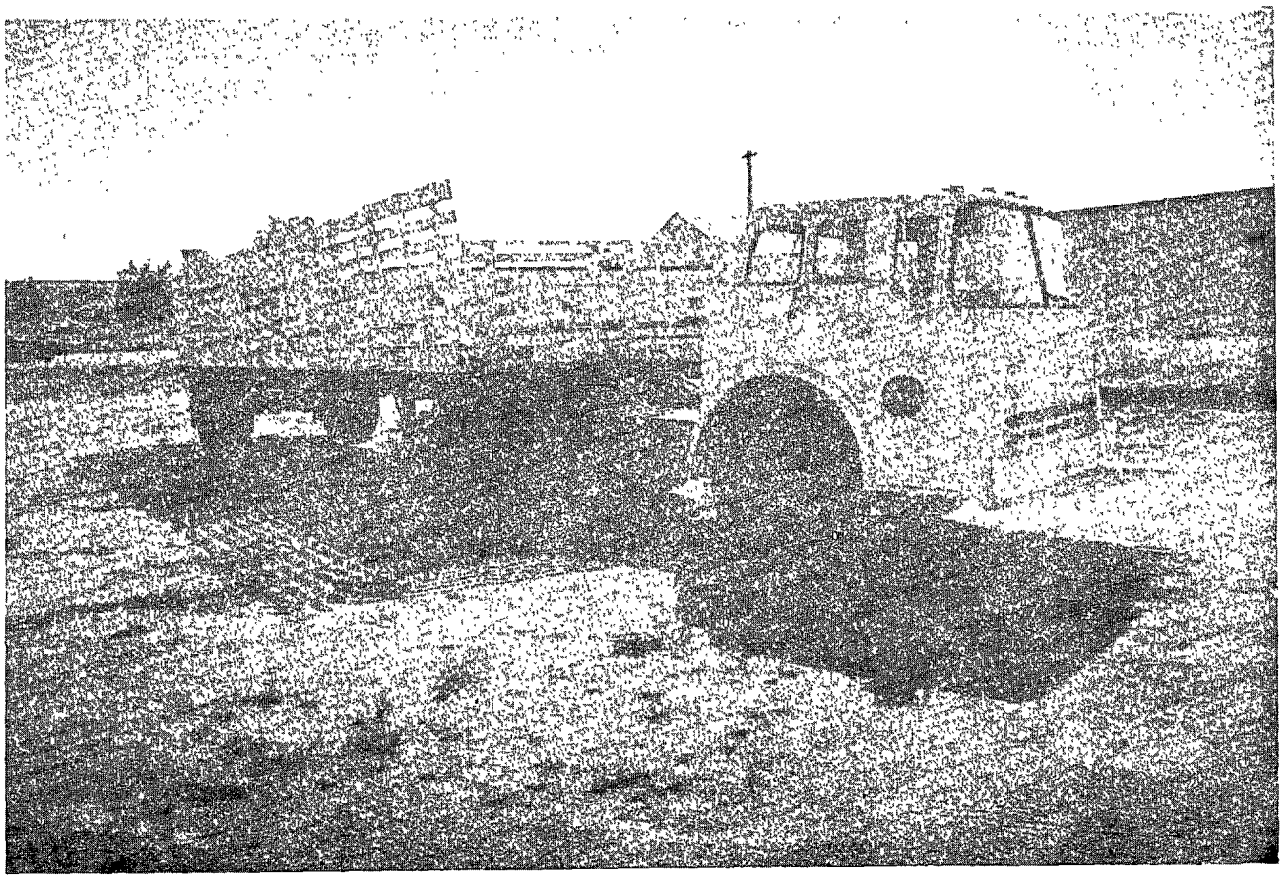
UNUSED EQUIPMENT AT CONTRACTOR LOCATIONS

At 3 contractor locations, we identified 1,584 items of idle equipment valued at about $31 million. The equipment consisted of a variety of items, including power supplies, generators, voltmeters, oscilloscopes, magnetic recorders, welding equipment, fork lifts, computer equipment, camera equipment, chain saws, and lawnmowers. The equipment had not been used for up to 8-1/2 years.

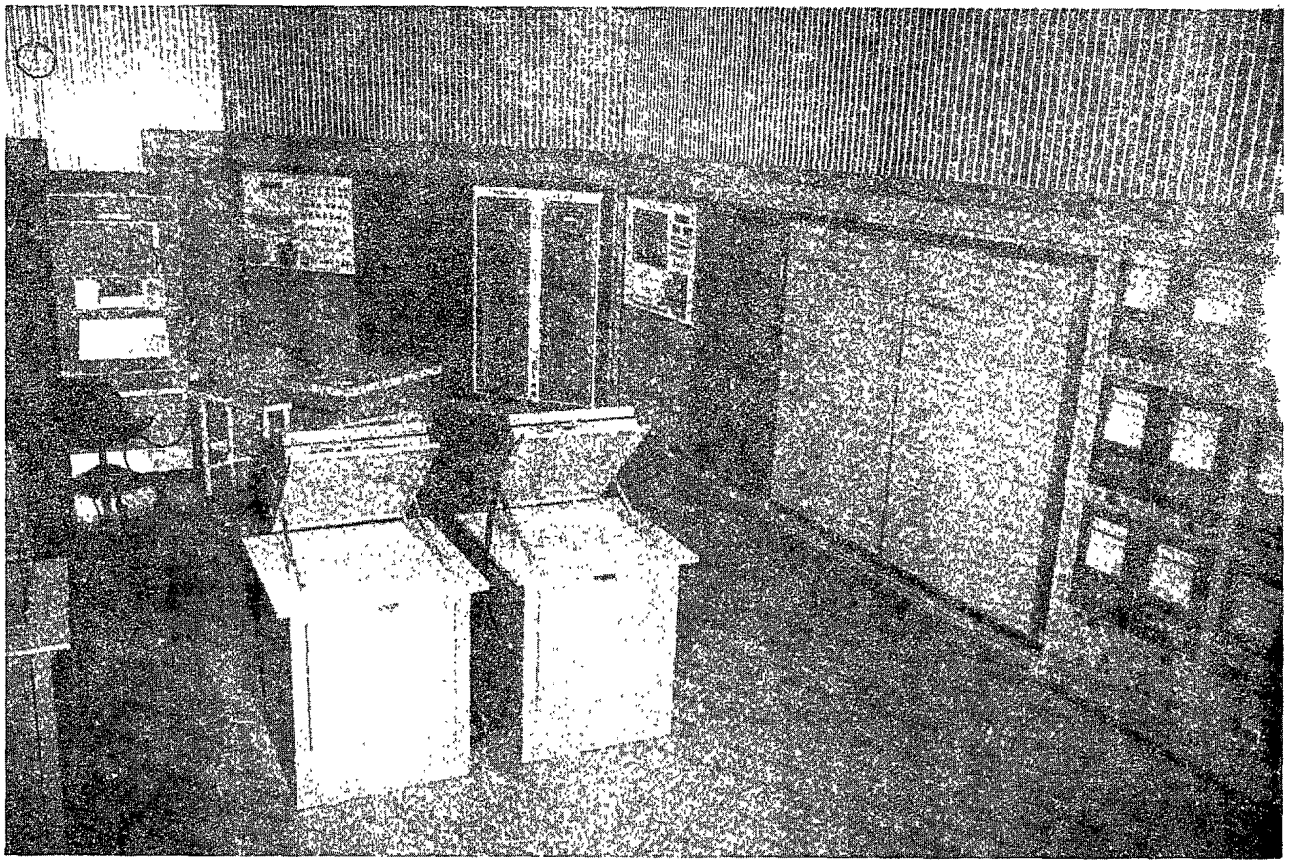
ACCOUNTING SYSTEM SHOWS INACCURATE STATUS OF EQUIPMENT

The Comptroller General's principles and standards for accounting provide that property records should be designed to be of maximum assistance in the procurement and use of equipment. NASA's policy and accounting system design recognize the importance of this feature. NASA's policy is to maximize the use of existing resources to avoid unnecessary procurement.

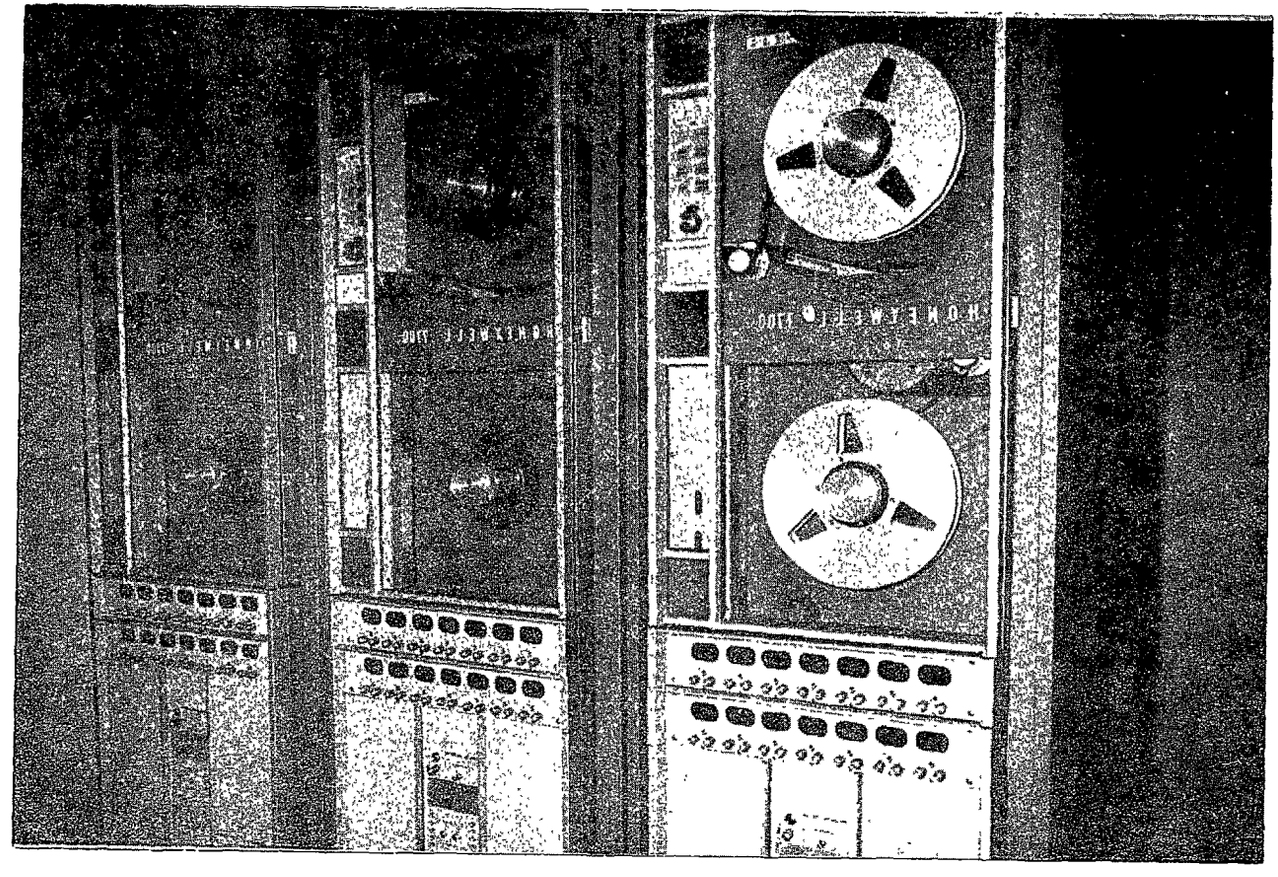
To realize this objective NASA's written procedures require that property custodians continuously monitor the status of equipment in their possession and report to the property officer equipment which will be inactive for 6 months or longer. The property officer is required to keep a suspense file and followup system on this equipment to justify keeping it in stock. Contractors are required to report to NASA equipment in their possession which is not needed to complete work under contract.



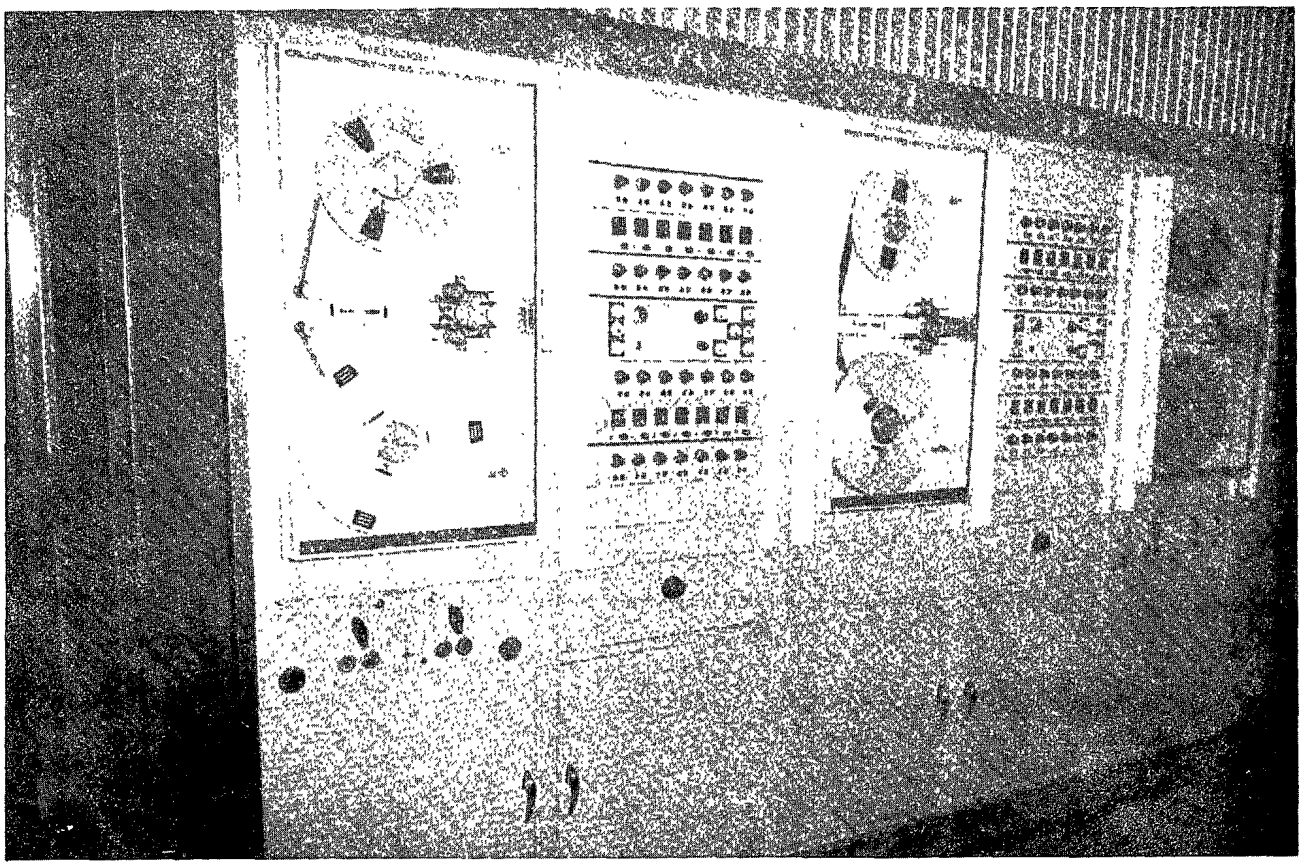
Type of truck used to relocate property from Marshall warehouse.



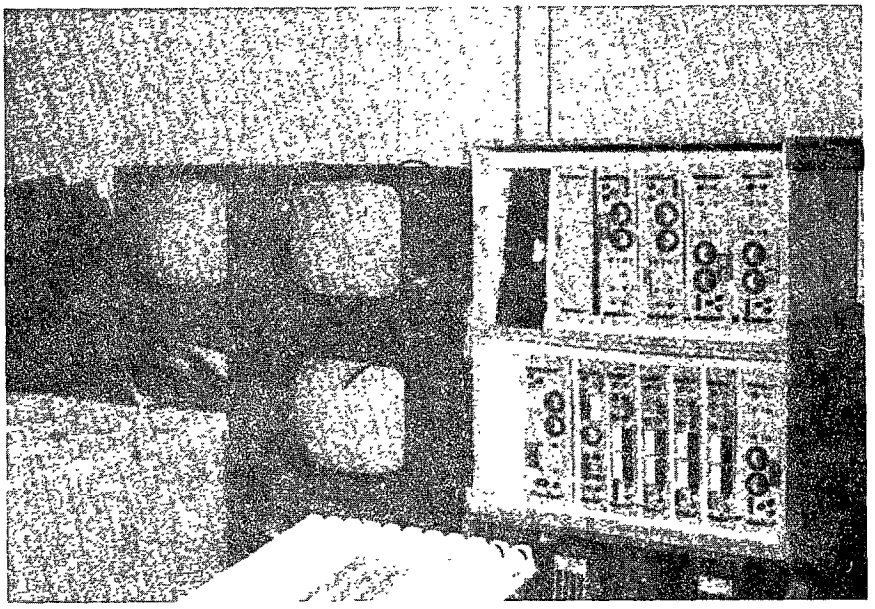
Data acquisition system. Last used: June 1969.



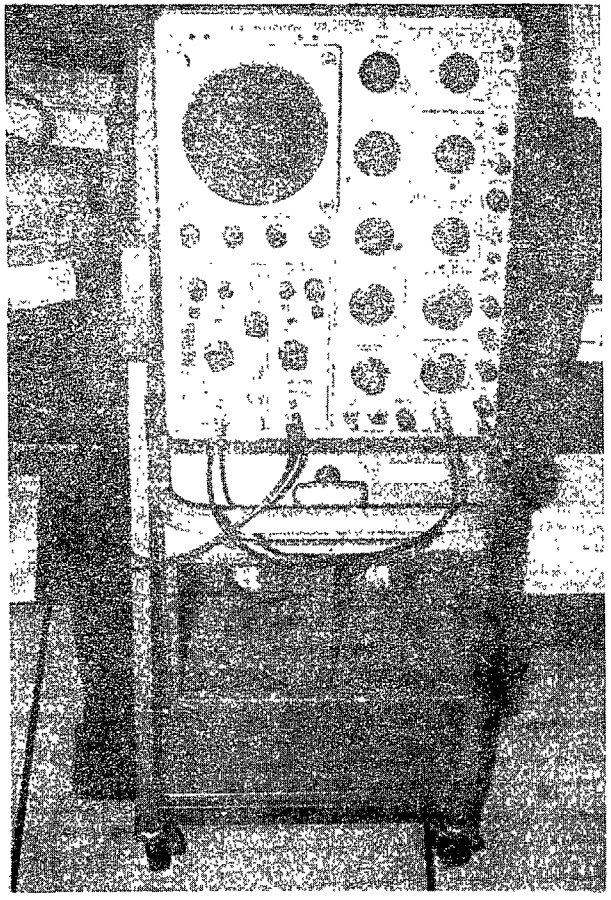
Tape recorders. Last used: February 1972.



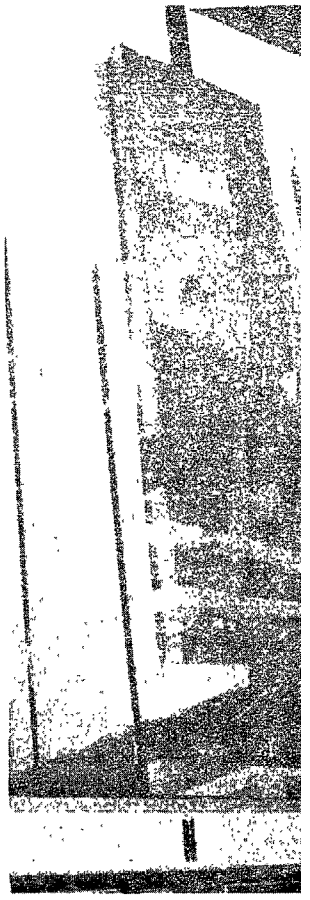
Tape recorders. Last used: June 1969.



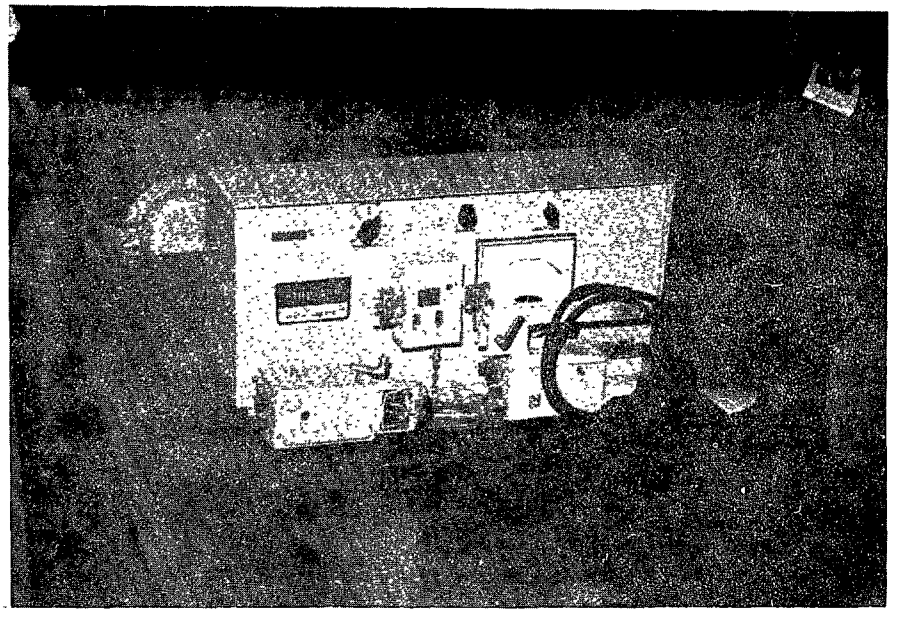
Television monitors and power supply.
Last used: September 1973.



Oscilloscope.
Last used: March 1974.



Tape re
Last use



Welder. Last used: January 1974.

Errors in the
equipment visibility system

In addition to its other requirements, NASA, in December 1972 and January 1973, established the requirement for its equipment visibility system to improve equipment use. This system was supposed to provide for NASA-wide visibility of the status of major equipment held by NASA installations and contractors. It includes a reporting system for equipment items valued at $1,000 and over, showing the status and availability of each item.

Before buying a new item of equipment, NASA activities are required to screen the equipment visibility system files to determine whether an identical or similar item is available.

The equipment visibility system did not accurately show the status of the equipment which we identified as idle. All 1,110 items of inactive equipment identified at Marshall were shown by the system to be in use. With few exceptions, other equipment which had been in storage at Marshall for several years was in use, according to information in the system. Most of 976 items identified at Goddard had been idle and in storage for at least 1 year. Nevertheless, those reported in the system were shown to be in use, and similar conditions existed at Johnson. In addition, the idle equipment had not always been reported to the property officer despite NASA's written requirements for this.

The contractors we visited either were not reporting the status of items or were reporting the status inaccurately. One contractor was supposed to have implemented the equipment visibility system effective January 1, 1974, but had not done so as of September 1974. Johnson had prepared an equipment status listing for this contractor early in 1973. The listing included some 225 items valued at about $900,000, and all were shown to be in use simply because they were in the contractor's possession. Moreover, our review showed that the listing excluded $41 million worth of equipment and was 1-1/2 years out of date at the time of our review.

To determine the use of equipment held by the contractor but excluded from the equipment visibility system, we reviewed 83 items of electronics equipment. Each item we reviewed was valued at $1,000 or more, and the 83 items had a total recorded value of about $417,000. We found that 31 items, or 37 percent, had not been used for at least 18 months,

and 1 item valued at $1,470 had been idle for 99 months. We also examined this contractor's stock records for 90 high-value items with a recorded value of about $307,500. Of these, 86 items had been idle from 1 to 8-1/2 years. This equipment included television cameras and monitors, generators, and various electronic equipment.

Another contractor, located at NASA's National Space Technology Laboratories, had established an inactive equipment pool which, in July 1974, contained 1,090 items valued at about $30 million. Our review of data in the equipment visibility system for those items with a unit cost of $1,000 or over showed that all were reported to be in use. However, more than half of these items had not been used for at least 6 months and 336 items had not been used for over 2 years.

We noted that another contractor had implemented the equipment visibility system for only 15 items of equipment valued at $78,000 although the contractor had at least 800 items each valued at $1,000 or more which should have been reported. Further, our limited tests identified 71 items valued at $131,000 which were idle but shown as being active in the contractor's records. Of the 71 items, 13 were plant equipment valued at about $38,000 which had not been used in more than 1 year.

OPPORTUNITY TO AVOID UNNECESSARY PROCUREMENT THROUGH BETTER ACCOUNTING

As a result of the inadequate reporting, NASA has limited knowledge of the extensive volume of idle equipment in its custody and thus little assurance that identical items are not being bought unnecessarily. We believe that accurate and reliable property records, including status information, are essential for a responsible determination of what needs to be purchased. To illustrate what can happen when property records are inaccurate, we identified several examples of NASA centers buying items when identical serviceable items were available in an idle status.

--In March 1974 Johnson purchased a wavequide attenuator costing $525 although Johnson had available an identical attenuator which had not been used since about July 1973.

--In February 1974 Marshall bought a data input-output writer for $1,737 although Johnson had an identical item available which had been idle since August 1973.

--Marshall had a pyrometer which had not been used since June 1969; Goddard bought an identical item in October 1969 for $1,200. Moreover, Goddard purchased an electronic counter in February 1974 for $2,700 although Goddard had one available which had not been used since September 1973.

--In 1973 Goddard successfully located an idle frequency converter at Johnson and had it shipped to Goddard. Although this appeared to be good property use, at the time the item was shipped Goddard had on hand three such items which had been idle for the preceding 5 months.

CAUSES FOR INEFFECTIVE IDENTIFICATION AND REPORTING OF UNUSED EQUIPMENT

We identified several causes for NASA's problems in accounting for and controlling unused equipment. Custodians were not reporting inactive equipment to the property officers in accordance with NASA regulations. We discussed this matter with several property custodians and found that some were not aware of the requirement. In addition, some of the custodians told us that the large number of items in their custody (often several hundred) and numerous locations of the items (often several different buildings) made it practically impossible for them to monitor equipment use. And, as indicated below, we believe that this practice is a primary cause for the breakdown in controlling inactive equipment.

We reviewed NASA's practices in assigning equipment responsibility at Goddard, Marshall, and Johnson. As of June 1974, Goddard had assigned 187 individuals as responsible for 56,641 items, or an average of over 300 items a person. Of these custodians, 20 were responsible for 1,000 or more items, and 1 custodian was responsible for over 1,450 items located in some 24 buildings.

Similar conditions existed at Marshall and Johnson. For example, the equipment assigned to 1 Marshall laboratory consisted of 10,184 items valued at about $64 million. The custodial responsibility for these items was assigned to 163 individuals, and 19 of the 163 custodians were responsible for 8,200 items scattered in several different buildings and valued at about $55 million. One individual was responsible for 1,893 items of capital equipment valued at $11.4 million and located in 13 buildings.

Further, we observed that the duty of equipment custodians was usually in addition to other administrative or technical duties. For example, the individual at Marshall

who was assigned responsibility for the 1,893 items was also an aerospace technologist and supervisor of a propulsion instrumentation office.

We also found that the physical inventory teams were not always complying with NASA procedures requiring that the team identify excess equipment as part of the inventory procedure. Moreover, although the equipment visibility system had been in effect since December 1972, the NASA centers had not implemented procedures to accurately determine the use status of equipment.

Further, the centers had not assured themselves that the equipment visibility system had been effectively implemented. For example, one contractor was supposed to have implemented the equipment visibility system effective January 1, 1974. The property administrator, a Department of Defense employee, was aware that the contractor was not complying with the contract terms but had not required compliance because he was uncertain of his responsibility. He said that he was waiting for NASA to require the contractor to implement the system.

In August 1974, 8 months after the contractor was supposed to have implemented the equipment visibility system, the Johnson contracting officer wrote to the contractor stating "he understands" that the system would be fully implemented by September 30, 1974. By September the contractor had taken the position that reporting for the system was not required and had not implemented the system as of October 1974.

Although the above causes contributed to the breakdown in the control and accounting for unused equipment, we believe that the underlying cause has been NASA's failure to be responsive to previous findings of GAO and NASA audit teams.

In July 1970 GAO reported to the NASA Administrator that property controls at a contractor's plant were inadequate because existing written policies and procedures for monitoring and controlling equipment use were not being followed. GAO found that equipment idle over 2 years had not been reported because no one was aware that it was not being used.

In March 1971 the NASA Management Audit Office reported that inadequate property management systems contributed to the potential for unnecessary procurements at Johnson. Johnson officials agreed to strengthen procedures to solve this problem. However, no improvements were made as evidenced by followup internal audit work.

In July 1971 the Audit Office again addressed this issue but in stronger terms. The audit report showed that (1) large amounts of idle and unneeded equipment had been found at Johnson, (2) much of the property was not recorded in the detailed property records, and (3) no reviews had been made to determine future need and/or to dispose of equipment no longer required. The Audit Office pointed out that as a result (1) property was bought by Johnson when idle or unneeded property could and should have been identified to meet the need, (2) expensive storage space was poorly used, (3) unnecessary inventory and property management costs were incurred, and (4) other NASA installations and Government agencies expended funds unnecessarily because of the failure to redistribute property no longer needed at Johnson. According to the audit report, the problem was widespread at Johnson and also involved local support contractors.

In May 1970 a NASA Headquarters task force, formed in response to a GAO recommendation, visited Marshall and pointed out the need to control stored inactive equipment in accordance with prescribed procedures. In January 1972 the Audit Office reported that large quantities of equipment had become inactive at Marshall and pointed out that it should be made available to others to preclude unnecessary procurements. In July 1972, over 2 years after the visit by the NASA Headquarters task force, the Audit Office reported inadequate controls over property stored in warehouses. The audit report showed that property had been in storage for several years and that some of it was being stored at the request of individuals who had since died or who were no longer NASA employees.

Our preliminary survey early in 1973 indicated that Marshall still had on hand some 14 warehouses of this property, most of which had been stored for several years. This property included such items as cable and copper wire, tube-flaring machines, hydraulic pumps, welders, and perforated-tape readers. In May 1973 Marshall officials began a review of this property to ascertain its contents and to decide what to do with it. By late 1974 they had not finished the job. We were told that most of the property in 13 of the 14 warehouses was redistributed to other NASA space centers, Federal, and State agencies; other material in the 13 warehouses was disposed of through sales and scrapping. In the one remaining warehouse, NASA still stored property which had been placed there by NASA employees who had since died or who were no longer employed. Thus, over 4 years after the visit by the NASA Headquarters task force, Marshall still had not corrected the situation.

In October 1972 the Audit Office reported that property custodians at Goddard were not reporting inactive equipment to the property officer although required to do so by NASA regulations. The audit report revealed that a substantial amount of inactive equipment was located in Goddard laboratories, hallways, and attics. In its report the Audit Office also noted that Goddard and its contractors were buying equipment although identical items were available.

AGENCY COMMENTS

NASA stated that, in considering the findings discussed in this chapter, the agency's success in redistributing unused property should also be recognized. According to NASA, during the past 3-1/2 years, Apollo and Saturn material valued at more than $1 billion had been redistributed. NASA also attributed savings of more than $92 million to redistribution of equipment identified throughout the equipment visibility system.

NASA acknowledged, however, that further improvement was needed and indicated it was seeking such improvement. All centers were directed to assess and correct, if necessary, their records on property status and to keep their records current. In addition, agency guidelines pertaining to keeping equipment status records and equipment custodian responsibilities have been strengthened.

CHAPTER 4

PROPERTY LOSSES CAN BE REDUCED THROUGH IMPROVED CONTROL AND FOLLOWUP PROCEDURES

Because of the ineffective assignment of responsibility for property control and the lack of adequate reporting and related followup procedures, NASA continues to lose substantial amounts of property. As early as 1968, GAO brought to NASA's attention the weaknesses contributing to this condition.

From July 1970 to early 1974, Goddard, Johnson, and Marshall lost 3,779 items of property valued at about $3,123,000. Limited investigations at 2 contractor locations showed that 731 items valued at about $230,000 had recently been determined missing. The lost property included a wide variety of items ranging from calculators, typewriters, cameras, and tape recorders to oscilloscopes, voltmeters, and a four-wheel trailer.

OPPORTUNITY TO REDUCE PROPERTY LOSSES

The General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies states that property losses shall be investigated to determine the causes of the losses and to identify necessary improvements in procedures to prevent further losses. However, contrary to NASA instructions, property custodians at Goddard, Johnson, and Marshall generally did not promptly report the disappearance of property. As a result, investigative authorities could not promptly establish the circumstances surrounding the disappearances and who was responsible for the loss. We believe these delays, in turn, contributed to NASA's general lack of success in determining the reasons for losses and in establishing responsibility for their occurrence.

We concluded that the late reporting was caused by (1) assigning custodians to so many items located at a number of different worksites that they could not readily detect the losses and (2) the tendency of custodians to delay reporting in anticipation that they or a physical inventory team might eventually locate the missing property.

Importance of promptly detecting and reporting property losses

NASA's written procedures recognize the importance of quickly detecting and reporting property losses. These

provide that whenever Government property for which accountability is kept is lost, the responsible custodian will promptly prepare a survey report describing the loss and forward it to the installation property officer. The property officer, or in some instances a property survey board, is required to investigate each survey report to establish the circumstances surrounding, and the extent of personal responsibility for, the loss. NASA's procedures further require that the surveying authority recommend measures for preventing similar losses.

Tardy preparation of survey reports

Responsible custodians at Goddard, Johnson, and Marshall generally did not comply with NASA's instructions requiring the prompt reporting of lost property. We examined 557 survey reports prepared by these centers pertaining to the disappearance of 2,494 items valued at $2,380,000. For 527 of these reports in which pertinent dates were available, 345, or 65 percent, were prepared from 2 months to over 4 years after the loss was detected.

Time lapse (months)	Number of reports
2 to 6	237
7 to 12	54
13 to 24	28
25 to 36	15
37 to 48	9
Over 48	2

Seven of the 26 reports submitted 2 years or more after detection of the losses pertained to items lost by Goddard valued at about $835,000.

The late reporting delayed the survey investigations by property officials and, in our opinion, contributed to the failure to identify the reasons for the losses. For example, of 201 survey reports prepared at Johnson, 119 stated no reasons for the losses and others only speculated on the causes. In some of these reports, the property officials stated that the delayed detection and reporting of the losses had hampered the investigations, and the Johnson Property Officer told us that the reasons for losses were difficult, if not impossible, to detect because of the delayed survey reports.

A principal cause for late reporting was the tendency of responsible individuals to delay reporting apparently in anticipation that they or the installation physical inventory

team might eventually locate the property. We identified 68 instances at Marshall where custodians knew of items missing but delayed preparation of the survey report until after the physical inventory team had detected the loss. For example, in 1973 after the physical inventory teams detected the loss of an item, the responsible custodian stated that personnel of his division had been searching for the item since 1965.

NASA's practice of assigning individuals large quantities of items located at numerous worksites also appeared to delay the reporting of property losses. We identified 145 instances at Marshall where custodians apparently did not know that items for which they were responsible were missing until the loss was determined by the physical inventory team. Several Marshall custodians told us that the large quantities of items for which they were responsible, coupled with the fact that the items were located at numerous worksites, made it practically impossible to promptly detect and report losses. Similar conditions existed at Goddard and Johnson.

Improved physical inventory procedures could reduce contractor property losses

The NASA Procurement Regulation provides that the property administrator require NASA contractors to report Government property losses as soon as the losses are detected. The contractor's report is supposed to include, among other things, a description of the circumstances surrounding the loss, the reason for the loss, and actions taken by the contractor to prevent further loss. The property administrator is supposed to investigate the incident to the degree necessary to reach a valid and supportable conclusion as to the contractor's liability for the loss. In addition, the regulation requires that the property administrator approve the contractor's physical inventory procedures.

The property administrators had approved the physical inventory procedures of the two contractors we visited even though the procedures did not require investigation of the reasons for property losses; neither contractor had made such investigations at the time of our review. One contractor told us that investigations would be done after the physical inventory. However, because this contractor takes a triennial inventory, the investigation could be delayed for as long as 3 years.

Need to be responsive to audit reports

Although we believe that the matters described above have contributed to NASA's continued loss of property, we

believe that the underlying cause has been the lack of thoroughness on the part of NASA management in correcting property accounting weaknesses brought to their attention. In 1968 we reported that Goddard was not promptly reporting and investigating property losses. NASA said that the situation would be corrected.

In 1970 we reported that the same weakness existed at the Kennedy Space Center, Florida. NASA said that this situation also would be corrected and established a task force to review property accounting procedures at all NASA installations. The task force visited the Manned Spacecraft Center (now Johnson) and Marshall in 1970 and Goddard in 1971.

The preliminary reports on the Goddard and Marshall visits did not mention the late reporting of lost property, but the Johnson report showed that property losses were not reported promptly. At the time of our survey, the reports on the visits to NASA centers had not been finalized, and NASA management had neither accepted nor reviewed the findings of the task force.

AGENCY COMMENTS AND OUR EVALUATION

NASA generally agreed with the findings discussed in this chapter and issued new instructions intended to strengthen procedures governing the assignment of responsibility for property to individual custodians. NASA's revised instructions continue to permit custodianship of property by individuals who don't have the time or opportunity to provide adequate surveillance over it. Although this practice may be necessary in some circumstances, it has been a source of difficulties in the past, and we believe NASA should check into the effectiveness of its new procedures at periodic intervals.

NASA also issued new instructions pertaining to the investigation of lost property. In addition, NASA stated that during a forthcoming appraisal of property management at each center, it planned to emphasize the need for proper investigation as a means of minimizing the loss of property.

We believe that the actions taken and promised by NASA, if effectively implemented, should reduce NASA's loss of property in its custody.

CHAPTER 5

NEED TO STRENGTHEN PHYSICAL INVENTORY PROCEDURES

NASA had not established and required implementation of satisfactory physical inventory procedures. Therefore, NASA management could not depend on its physical inventories to insure that recorded equipment was on hand and that unrecorded equipment was identified and brought under accountable control. Shortcomings in physical inventory procedures have contributed to NASA's continuing problems in (1) not promptly establishing accountability over its equipment and (2) accumulating a substantial inventory of idle equipment.

IMPORTANCE OF PHYSICAL INVENTORIES

Physical inventories provide management with a means of checking on the adequacy of property accounting procedures, insuring that recorded property is on hand, and insuring that unrecorded property is brought under accountable control. To be effective, however, physical inventories should be independent--that is, made by individuals other than those having custodial responsibility for the property. This principle of internal management control is recognized in the General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies which provides that:

> "Responsibilities for assigned duties and functions should be appropriately segregated as between authorization, performance, keeping records, custody of resources, and review, so as to provide proper internal checks on performance and to minimize opportunities for carrying out unauthorized, fraudulent, or otherwise irregular acts."

The Manual also provides that physical inventory procedures should include an investigation of the causes for differences between recorded property and property actually located. This enables management to identify and correct weaknesses in the property accounting system. Moreover, to insure that all property is counted, those individuals taking the inventory should not use listings of the recorded property. Otherwise, the inventory team members may tend to overlook items not accounted for on the list.

Physical inventories may also serve as an internal control over property use. For example, the physical inventory team might indicate on the inventory records those items which are in storage or not in apparent use. This data may then be analyzed by management officials to determine whether

the property should be retained or redistributed.

NEED FOR MORE EFFECTIVE PHYSICAL INVENTORIES

NASA's physical inventory procedures require substantial strengthening if the inventories are to accomplish their intended objectives. Our review showed that:

--Contractors advised property custodians to verify that they had the equipment for which they were responsible, contrary to the internal management control requiring that independent inventories be made of what is physically there whether or not it is on a property list.

--Contractors and two (Goddard and Johnson) of the three NASA installations permitted the inventory personnel to use listings of the property which was supposed to be on hand.

--NASA installations and contractors did not investigate the reasons for unrecorded equipment identified during the inventories, and the contractors did not investigate the reasons for property losses. 1/

--NASA installations did not always require that physical inventory personnel attempt to identify idle or unneeded equipment, contrary to NASA instructions.

By not complying with the internal management control requiring the segregation of duties and with the general practice of using equipment listings in taking inventories, NASA could not rely on the inventories to insure that recorded property was on hand and that unrecorded property was identified. Also, if NASA installations had investigated the causes of unrecorded equipment, some of the problems in establishing accountable control over equipment may have been solved. The investigations could have determined the circumstances under which equipment was received but not recorded, thereby enabling NASA management to institute corrective measures. Further, as discussed in chapter 3, we believe that the failure to comply with NASA's written inventory procedures contributed to the substantial buildup of idle and unneeded equipment.

1/ NASA installations did investigate losses, but the investigations were generally ineffective because of the late reporting of the losses.

REASONS FOR UNSATISFACTORY PHYSICAL INVENTORY PROCEDURES

The main cause for the unsound physical inventory procedures was, in our opinion, the lack of thoroughness by NASA managers in correcting weaknesses previously brought to their attention. We reported in 1970 the inadequate inventory procedures at the Kennedy Space Center. These weaknesses included the lack of an independent inventory and the use of equipment listings by those taking the inventory. At that time we recommended that NASA issue appropriate guidelines on the means, methods, and personnel to be used in taking physical inventories. NASA published guidelines in 1970, but they were silent with respect to the use of equipment listings and did not cover contractor physical inventory procedures.

Contractors are required to periodically inventory Government-owned property in their custody, and the cognizant Government property administrator must approve the physical inventory procedures. We found that NASA's property administrators had approved the contractors' procedures although the procedures (1) failed to require an independent inventory, (2) permitted the use of equipment listings, and (3) failed to require investigations of the differences between recorded and on-hand property. The property administrators who approved these procedures had not been furnished any guidelines as to what constitutes sound physical inventory procedures.

AGENCY COMMENTS AND OUR EVALUATION

NASA generally agreed with the findings discussed in this chapter and promised to reexamine each center's physical inventory practices giving particular attention to recording and investigating unrecorded equipment, identifying idle equipment, and establishing accountability for property and equipment. NASA also revised its regulations prescribing procedures for taking physical inventories, but the revisions did not specifically ban using equipment listings during physical inventories. We believe that this may be necessary to insure that inventory teams do not use equipment listings.

NASA promised to revise its regulations pertaining to contractors' management of NASA property to preclude dependence on equipment listings and to insure that inventories are not entrusted solely to those individuals responsible for custody of the equipment.

If effectively planned and enforced, we believe the specific actions promised by NASA should correct other deficiencies in property management discussed in this chapter.

CHAPTER 6

NASA COMMENTS AND GAO RECOMMENDATIONS

NASA COMMENTS

In its comments (see app. I) on our proposed report, NASA said that in its view it has made serious attempts to correct weaknesses in its property accounting and control system. In support of its position, NASA points to the equipment visibility system which it created on an agency-wide basis and to extensive equipment management guidelines it has published, many of which were intended to help correct procedural weaknesses. NASA also states that in 1972 it made organizational changes which strengthened the property management function. NASA believes these measures have vastly improved its property management.

NASA further stated that the GAO audit coincided with periods of intense effort by NASA to improve its property management and that in some cases GAO used some of this effort in its audit. In addition, NASA states that some of the problems with its equipment visibility system were the result of its newness.

Although NASA has not yet been able to correct all the deficiencies in its property management system, the agency believes a good deal of progress has been made. With regard to remaining weaknesses in its system, NASA proposes to take corrective measures during the next year. The measures it proposed were to:

--Emphasize the importance of the role of line managers and tighten discipline over operating practices in matters concerning property management.

--Have each NASA center make a self-assessment of its property management.

--Have NASA inspection teams verify that each center carries out its property management responsibilities according to established standards.

--Establish a schedule of corrective actions for any deficiencies found and require each center to report progress until the corrective actions are completed.

--Make property management reviews at each center at 2-year intervals.

We recognize that NASA has taken a number of steps to improve its property accounting and control. NASA's comments, however, deal generally with the action to be taken by management and are not specific as to what steps will be taken to correct the problems we have reported. Further, NASA acknowledges that a great deal remains to be done before its property management system will produce the kind of control necessary to minimize losses and prevent purchases of unneeded items. We therefore believe that the further emphasis which NASA promises to use to correct the remaining weaknesses in its system should receive a high priority by NASA's management.

RECOMMENDATIONS

We therefore recommend that the NASA Administrator direct the agency's internal audit staff and inspection teams to check whether effective procedures and controls have been established to:

1. Prevent capital equipment being recorded as expendable property and thus not properly controlled under accounting and property records.

2. Maintain accounting control for property transferred between NASA installations and contractors' plants.

3. Promote cooperation between NASA personnel having custody of equipment and those responsible for accounting for property.

4. Insure prompt investigation of reasons for unrecorded equipment including notification of those responsible for the error.

5. Keep current the information in the equipment visibility system particularly whether equipment is in use.

6. Provide effective physical inventory procedures including:

    a. Taking inventories by persons other than those responsible for custody of the equipment.

    b. Taking inventories without the use of equipment listings.

c. Recording equipment which inventories disclose are not recorded on property and accounting records.

d. Correcting records of unused equipment shown as used or vice versa.

7. Promote prompt reporting and investigation of property losses.

8. Insure that contractors establish procedures for investigating property losses and for prompt reporting of such losses to the cognizant property administrator.

We recommend that, because NASA's problems in maintaining effective control over the property it owns have been continuous for several years, the NASA Administrator direct responsible agency officials to give the property management and accounting functions continuous attention warranted by the sizeable investment.

CHAPTER 7

SCOPE OF REVIEW

We made our review primarily at the Goddard Space Flight Center, Greenbelt, Maryland; the Johnson Space Center, Houston, Texas; the Marshall Space Flight Center, Huntsville, Alabama; and at three contractors having custody of NASA property. We also inquired about the operation of the property accounting system at NASA Headquarters, Washington, D.C., and at the cognizant Defense Contract Administration Services offices.

Our objective was to determine whether NASA's property accounting system (1) insured that its property was under accountable control, (2) provided reliable financial information on the value of its property resources, and (3) produced appropriate information on the status of property to enhance efficient operations. We also inquired into action taken pursuant to recommendations made in recent years for improving its property accounting system.

Generally, we concentrated on NASA's accounting for equipment. At the contractor locations, we were concerned primarily with the effectiveness of accounting controls over idle equipment. At two of the three contractors, we also examined physical inventory procedures including reporting and investigating lost property.

We examined pertinent documents, reports, and policy statements and held discussions with agency and contractor employees having responsibilities relating to property accounting. We did not attempt to identify all the unrecorded and inactive equipment at the NASA installations visited. Also, we did not attempt to identify all the inactive equipment in the custody of the contractors visited.

APPENDIX I

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546

JUL 10 1975

REPLY TO
ATTN OF W

Mr. D. L. Scantlebury
Director, Division of Financial
and General Management Studies
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Scantlebury:

We appreciate the opportunity to comment on your draft report on equipment management. Our comments are attached.

While we acknowledge that we have not yet been able to correct all deficiencies, a great deal of progress has been made. We feel that on balance our overall equipment management, at this time, is effective and we are taking positive actions to make further improvements.

We would appreciate your reviewing our comments in detail. We believe that a current assessment of the progress made to date, and actions under way, should lead to the conclusion that our management is now reasonably effective. If you agree, we would appreciate your revising the report to this effect.

Sincerely,

Duward L. Crow
Assistant Administrator for
DOD and Interagency Affairs

Attachment

NASA COMMENTS ON GAO DRAFT REPORT TO THE CONGRESS ON EQUIPMENT INEFFECTIVELY CONTROLLED AND ACCOUNTED FOR

Introduction and Perspective

It is the GAO's general conclusion that NASA has failed to achieve effective management control over equipment and other property and further, that NASA has failed to correct deficiencies uncovered in past years.

We acknowledge that certain deficiencies in practice have persisted at some NASA locations and we propose to correct those and any remaining underlying weaknesses at any NASA Center during the next year. The specifics of this action are discussed in a subsequent paragraph below

We submit, however, that the deficiencies alluded to in the report do not constitute "ineffective" management of property and we believe the GAO should reconsider its conclusions and modify its perspective in light of the following factors:

a. A central issue in the audit is the capitalization determinations made when items were first acquired.

We disagree that there was (or is) widespread error in making initial capitalization determinations. These judgments were, on the whole, made at acquisition against the published capitalization criteria of the agency or in accordance with the NASA Procurement Regulations for acquisitions under contracts. The difficulty stemmed from the failure or inability to redetermine the classification of the equipment in timely fashion when its end use designation was changed or when its design became stabilized. An understanding of the underlying cause of this problem is important to its assessment as a management deficiency.

The Saturn/Apollo program, for which most of the equipment discussed was acquired, demanded unprecedented research and development. New materials, approaches, techniques and procedures had to be developed and reliability demonstrated often in parallel to meet very tight schedules. Many items were acquired for flight or test purposes, which did not meet the end-use criterion, and they were thus not capitalized. However, under rigid man-rated reliability requirements some acquisitions later proved unuseable for the purpose originally intended. As a consequence, a residue of equipment grew which was purchased for one use but put to another use, invalidating earlier capitalization judgments. Further, the

APPENDIX I

scope of the program changed and, when launch schedules were reduced, many of the items were never used for the intended purpose. When the program became substantially complete, questions of the disposition of the vast national capability which had been created were not easily or quickly reached with the result that much equipment was necessarily retained in an inactive status for long periods pending resolution.

Ideally, throughout this period each item of equipment should have been reevaluated and its capitalization characteristics reassessed. However, the sheer volume of the equipment and program pressures prevented any concentrated undertaking of this task until recently. We believe that most, if not all, of this equipment is now properly recorded.

Since it is possible to infer from the audit that failure to promptly capitalize in the financial records constitutes loss of control over the equipment, it should be noted that such equipment was maintained in the property records and was not, therefore, uncontrolled.

b. Another major issue of the audit is that NASA fails to identify inactive equipment with the result that purchases of identical items are made unnecessarily.

We acknowledge that we have not yet identified all inactive equipment in NASA but we believe that the GAO should recognize that NASA has identified and redistributed for reuse over one billion dollar's worth of Apollo and Saturn equipment and other property during the past approximately 3-1/2 years. We believe that NASA's system, the Equipment Visibility System, for identifying and redistributing inactive high value equipment is unique and represents an initiative unparalleled among Government agencies. Since its activation in September 1973 (not December 1972 as stated on p. 34 of the report), NASA has used the EVS to redistribute $92 million worth of equipment for reuse. Its data bank currently makes completely visible to all of NASA, over 189,000 items valued at nearly $2.5 billion. (In these totals are over 60,000 items, valued at $900 million, held by contractors.) Nearly 17,000 items valued at $257 million are labeled inactive. We agree that there may be many additional items which should be labeled inactive and we recognize the further work that needs to be done to refine the present bank of data. It is equally important to note, we believe, that such a unique bank has, in fact, been created and has proved as valuable as it has in so short a period. It is important to note also that items labeled "active" in the system, accurately or

inaccurately, are visible to all NASA elements and may be (and often are) requested by potential users. Items may be inaccurately labeled but they are not hidden or lost.

c. The report also concludes that NASA fails to take corrective action when deficiencies are uncovered.

When a failing at one Center crops up at another, a few years after the first, it is not inaccurate to say that management somehow failed to take totally preventive action based on the first experience. It is inaccurate, however, to imply, as we believe the audit report does, that specific uncovered deficiencies are ignored when found or that serious attempts are not made to correct system weaknesses. The record contradicts this view, noting that NASA followed up each of the GAO audits cited with energetic and extensive corrective activities. On an agency-wide systems basis, NASA created the EVS and has published extensive equipment management guidelines, many of which were designed to help correct procedural operational weaknesses. This resolve to improve property management also resulted in an organizational concentration and strengthening of the function in 1972. We believe these measures have vastly improved NASA's property management and that GAO should recognize this progress.

It is necessary to note that, in some cases, the GAO used the corrective activity of the agency itself as evidence of past weaknesses. The GAO's audit, covering a period of more than a year preceding the audit, coincided with the periods of intense effort by NASA to improve its property management. As the Centers caught up with capitalization redeterminations, for example, their lateness was cited. As MSFC reduced, by the truckload, its store of inactive equipment, its past slowness in doing so was cited. The new EVS system, devised to provide new visibility over the agency's equipment assets was cited -- not for its extraordinary early results but for the imperfections of implementation of some locations in its earliest phase. We believe the GAO should reconsider this point of view.

Nonetheless, there are still weaknesses to correct and to the best of our ability they will be corrected. We presently plan the following:

1. Emphasizing the importance of the role of line management and discipline in property management, the Associate Administrator for Center Operations has called upon each Center Director to

APPENDIX I

stress the need to strengthen any weaknesses at his Center through personal involvement. A thorough self-appraisal of the Centers practices against agency equipment management criteria, and against a list of weaknesses uncovered in the past, will be undertaken at each Center under the direction of the Center Director.

2. Within 3 months the results of the appraisal will be reported by Center Directors to the Associate Administrator for Center Operations.

3. After 6 months Headquarters inspection teams will visit each Center and verify that the Center is up to expected standards.

4. If any weaknesses or deficiencies are found during inspection, a schedule of corrective actions will be established and the Center required to report progress until completed. (See Attachment 1.)

5. Regular property management reviews are planned to be conducted on an every-other-year basis at each Center in the future. Follow-up on past deficiencies, however uncovered, will be featured.

In summary, we believe that the weaknesses and deficiencies uncovered by the GAO do not constitute "ineffective management" and that NASA not only has been responsive to prior audits but has taken extraordinary initiative to improve its property management. The measures adopted for continued strengthening of its practices reflects, we believe, the high importance placed by the agency on this important function. We suggest, therefore, that the report be modified to reflect this perspective and its rather sensational title be moderated.

The comments which follow apply to individual conclusions and recommendations in Chapters 3-6 of the draft report.

Chapter 3 - "Millions of Dollars Worth of Property Not Recorded in Accounting Records."

GAO Conclusions and Recommendations

CONCLUSIONS

NASA has failed to properly and promptly record substantial amounts of property and, consequently, has lost accountable control of this property and impaired its system for safeguarding assets. The property

has eluded NASA's accountable control system for a number of reasons including:

- Improper classifications of equipment as expendable materials.
- Improper classification of equipment by individuals not authorized to classify the property.
- Inadequate coordination between NASA contracting officers and property officers on transfers of Government-owned equipment from contractor plants to NASA installations.
- Inadequate cooperation between employees having custody of equipment and those responsible for the accounting for property.
- Deficient physical inventory procedures.

While these reasons have contributed to NASA's problems in establishing accountable control over its equipment, we believe that the basic cause has been NASA management's lack of thoroughness in correcting property accounting weaknesses previously disclosed by GAO and NASA audit teams.

RECOMMENDATIONS

We recommend that the NASA Administrator take action to insure that:

- All equipment and other personal property owned by NASA are properly recorded in the accounting and property records of NASA activities and its contractors.
- Adequate controls are established to preclude capital equipment being classified as expendable property and thus resulting in the failure to properly record the equipment in the accounting and property records.
- Adequate procedures are established to maintain accounting control for property transferred between NASA's activities and its contractors' plants.
- Effective cooperation is maintained between NASA personnel having custody of equipment and those responsible for the accounting for property.

- Equipment identified as unrecorded, such as that found by physical inventory teams are promptly investigated to determine the basic reasons and responsibility therefore.

We also recommend that the NASA Administrator require periodic reviews to insure that corrective actions taken in response to recommendations made by GAO and NASA audit teams are adequate.

NASA RESPONSE

At the Center most prominently cited for improper classification, MSFC, property was not improperly classified at the time of acquisition and items procured as expendable did not meet the agency's capitalization criteria. Subsequently, the usage to which many items were put changed, qualifying these items for capitalization. Redeterminations were not made as promptly as required or desired for a number of reasons, as noted, which stemmed from the pressures and priorities of a large schedule-oriented program and the enormous amount of material involved. This condition, perhaps with variations, was responsible at other Centers as well. Since such equipment was controlled in the property records, if not the accounting records, of the Centers, we do not agree that safeguarding these assets was impaired. We do agree, however, that redeterminations of capitalization should be made in more timely fashion and all Centers are specifically required to reexamine their methods and disciplines in the agency-wide appraisals required by Attachment 1. The agency's guidelines regarding capitalization will also be reexamined to determine whether they may be made more useful in this respect.

With respect to unauthorized personnel classifying property: we assume, although this point is not clear in the report, that user personnel, or requestors, are referred to. If so, the judgment of such personnel are essential to end-use determinations, especially, and are not unauthorized participants in making the determinations. We agree, however, that property personnel must also participate in these judgments and MSFC's procedures now so provide. Agency guidelines will be reexamined to assure that this point is clear. (As noted, most classifications were made in accordance with agency criteria and were not erroneous.)

Coordination between NASA contracting offices and property officers on transfers of Government-owned property probably do require strengthening at some Centers and all Centers will be required to reexamine their practices in this respect. Note that problems of this chapter attributed to lack of coordination are closely related to the need for redetermination of equipment classifications. Equipment classified as noncapital (e.g., special test equipment), whether currently accurate are not, by-passed Center property personnel on

transfer to the Center from contractors. Procedures requiring that all property enter a Center through the property organizations will be tightened as will capitalization redeterminations, as noted.

While we doubt the examples cited in the report are characteristic of the agency, we agree that a wide-spread lack of cooperation between those having custody and those having accounting responsibility would have serious effect on the proper recording of property. As in the preceding comment, close coordination of all offices with property responsibilities will be reexamined and, if necessary, strengthened at each Center.

We agree that investigations to determine the origin and reasons for unrecorded equipment found in inventories have not been widely employed in the past. Agency guidelines require such investigations and compliance will be assessed at each Center in the forthcoming appraisal.

Whether or not NASA management has lacked thoroughness in correcting property weaknesses previously disclosed is a subjective determination of the GAO's. NASA believes it has responded to all previous audits energetically and purposefully. Some of the corrections took more time than others considering the magnitude and volume of the task. If our corrective actions of the past lacked preventive effect, we hope to remedy that deficiency in the forthcoming appraisal and the corrective efforts at all Centers.

Chapter 4 - "Improved Accounting for Unused Capital Equipment Could Result in Substantial Savings."

GAO Conclusions and Recommendations

CONCLUSIONS

NASA and its contractors have a substantial amount of Government property which is not being used, and knowledge of the availability of this property is obscured because the property accounting records do not accurately show its status. As a result, NASA management has little assurance that items are not being bought unnecessarily -- which in fact has occurred. Further, the lack of accurate data on the current status of equipment has precluded its effective reassignment of unneeded but usable property among NASA activities and other Federal, State, and local agencies.

This situation arose in part because NASA employees, assigned responsibility for unrealistically large quantities of items at numerous locations, have not complied with NASA's procedures regarding the reporting of inactive equipment. In addition, NASA's physical inventory teams have not complied with procedures requiring that unneeded equipment be identified. And, NASA installations have not yet implemented procedures to assure that the status of equipment is accurately reported in the EVS.

We believe, however, that a more basic cause for the continued existence of this situation has been the failure of NASA managers to take adequate corrective action in response to previous audit disclosures.

RECOMMENDATIONS

We recommend that the NASA Administrator require:

- Installation Directors to redistribute equipment responsibility to custodians having frequent opportunities to observe the status of equipment utilization.

- Custodians to report inactive equipment to the installation property officers and property officers to maintain current records of the equipment status utilization.

- Installation physical inventory teams to report equipment, observed during the inventory process, that is unused and available to others.

- Installation Directors to establish and implement procedures for ascertaining and keeping current the status of equipment reported in the EVS.

We also recommend that the NASA Administrator require a systematic followup to insure that adequate corrective action has been taken.

NASA RESPONSE

The GAO's conclusions are not inaccurate but they are incomplete. The following additional pertinent facts should also be added to the record and NASA's record for reutilization of equipment viewed in its entirety:

1. As program decisions regarding the retention or disposition of manned flight material and capability -- which in some cases

went as high as the Congress -- were made, property was redistributed to other programs or was disposed of. In the past approximately 3-1/2 years, over one billion dollars worth of Apollo and Saturn material was redistributed to other areas for reuse.

2. As a longer-term aid in redistribution of inactive equipment, NASA activated in September 1973 the Equipment Visibility System after less than a year's in-house development. To date, it is credited with savings of over $92 million in redistributed equipment. The fact that it was not wholly implemented by all users, including all contractors, at the time of the GAO review should neither deny its value nor, at this early stage, seriously question its implementation. In order to activate the system as soon as possible, it was necessary to adapt implementation to individual situations. For example, waivers were granted to the manned Centers to dispose (without new coding) of large numbers of items which were made available in "open house" disposition efforts. These waivers may account for much of the equipment found improperly coded. Changes to contracts were necessary and in some cases had to be individually negotiated to avoid additional charges, which were considered improper by NASA, a delay factor. In other situations, active administration of the new clauses at contractor plants, which is a delegated function of DOD, required additional interagency coordination so that results of the new system could not reasonably be expected at all locations simultaneously.

We do not disagree that there are items of inactive equipment still improperly labeled in the EVS. As one price for quick implementation of EVS it was necessary at some Centers to "blanket in" much equipment under the Active label in lieu of painstaking and time consuming item identification beforehand. Refinement of this data was to take place as expeditiously as possible, afterward. Subsequently, "Zero-based reviews" (intensive resources-oriented reviews related to budget determinations) served at some Centers to endorse or modify the previous labels so that mislabeling may be the exception rather than the rule at some Centers where the task was not a massive one. Nevertheless, all Centers are required to assess and correct, if necessary, any remaining mislabels and to keep their records current under the agency-wide appraisal effort. Agency guidelines (in new Section II of the Equipment Management Manual) have been further strengthened.

With respect to assignment of unrealistically large quantities of items to custodians and the failure to identify unneeded equipment in inventories, we agree that improvements are needed -- and they will be provided -- at those Centers where they are required. In addition, new agency guidelines were recently issued (Section II of the Equipment Management Manual) which we believe will assist in improving these disciplines.

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We do not believe that NASA's record with respect to unused capital equipment, however imperfect, has been a poor one. Substantial savings have been achieved and the means adopted to assure future efficiency in the prompt identification and disposition of idle equipment to an extent not paralleled by other agencies to our knowledge. We will continue -- as evident in Attachment 1 -- to assure further improvement.

Chapter 5 - "Losses of Property Can Be Reduced Through Improved Control and Follow-up Procedures."

GAO Conclusions and Recommendations

CONCLUSIONS

NASA continues to lose substantial amounts of property because of the ineffective assignment of responsibility for control of property, and inadequate physical inventory and related follow-up procedures. Over the years, NASA management has been provided ample evidence that this element of its accounting system needs improvement but the agency has not taken effective corrective action.

RECOMMENDATIONS

We recommend that the NASA Administrator require that:

- Responsibility for equipment be redistributed to custodians having frequent surveillance of the equipment to enable the prompt detection of losses.

- Responsible supervisors have custodians promptly report the disappearance of property rather than delay the reporting in anticipation that the property might be located.

- Contractors establish and implement procedures providing for the investigation of property losses and the prompt reporting of these losses to the cognizant property administrator.

We also recommend that the NASA Administrator require a systematic followup to insure that adequate corrective action has been taken.

APPENDIX I

NASA RESPONSE

The GAO determined that from July 1970 to early 1972, a period longer than 3 years, the three Centers lost equipment valued at $3.1 million. Although this loss is about 1/10 of 1 percent of the $2.7 billion worth of personal property held by these Centers, NASA agrees the sum is substantial and that the need for further improvement is indicated. As already noted, new procedural guidance is now available governing custodial assignments. Further, guidance has in the past year been provided governing the investigation of equipment losses (Section III, Part 3 of the Equipment Management Manual). Supplemented by refresher training, early improvement is expected at those Centers where it is required. All Centers are required to pay attention to this problem in the forthcoming appraisal efforts. (In this connection it should be noted that more than 95% of the dollar value of losses cited by GAO was restricted to one of the three Centers, a concentration which localizes the problem for a quicker and more effective diagnosis and cure than would a widespread condition.)

The GAO did not identify either the contractor locations where $230,000 in equipment had been reported lost (presumably over the same 3 to 4 year period), the responsible administrative agency, or the contractual terms involved, thus, we are not able to address the specific circumstances of that case. However, the guidelines for all property administrators, whether NASA's or DOD's are essentially the same for lost property, namely Supplement #3 of both the Armed Services and NASA Procurement Regulations. These now require investigation of losses by the contractor and reports to the property administrator (See S3.602). This requirement does not specify the procedures to be used by the contractor in the investigations but does specify the results to be obtained. We believe the present requirement and procedure are adequate when conscientiously followed. While NASA is, of course, responsible for assuring that it receives proficient service from the DOD administrators under its property delegations, it tries to accommodate itself whenever possible to the procedures and practices of the DOD. While we would not be reluctant to introduce to the DOD the need for change in procedures when the occasion warrants, we do not believe the instant case does. We do emphasize, in the NASA Center appraisals of property management, that property delegations to DOD agencies be carefully monitored, which should assure that losses will, in fact, be properly investigated and thereby minimized.

Chapter 6 - "Need to Strengthen Physical Inventory Procedures."

GAO Conclusions and Recommendations

Under existing procedures NASA cannot rely on its physical inventories to accomplish their basic purpose of assuring that recorded equipment is present and that all unrecorded equipment is identified and brought under accountable control. Moreover, we believe that compliance with sound physical inventory procedures would aid NASA in accomplishing other aspects of property accounting, including the identification of unneeded equipment and the establishment of accountability for equipment when it is received. Recommendations for improving physical inventory procedures are included in previous chapters. In addition to those, we recommend that the NASA Administrator require contractors holding NASA equipment to establish and implement physical inventory procedures which preclude the use of equipment listings by those taking the inventory and provide for inventories by individuals other than those responsible for custody of the equipment.

NASA RESPONSE

As already indicated in previous chapter comments, inventory practices will be reexamined and strengthened at each Center where weaknesses persist with special attention to recording (and investigating) unrecorded equipment, identifying idle equipment, and establishing accountability for equipment.

NASA's internal guidelines now effectively preclude dependence on records (or listings) in taking complete physical inventories. (See paragraph 6.102 of the Equipment Management Manual). Note, however, that the mere use or assistance of listings is not strictly prohibited -- nor in our judgment should it be since reconciliation with records is a necessary purpose of an inventory. Dependence on the listing in searching for and recording items is, of course, another matter and proscribed. Similar guidelines are now being drafted on this point for NASA's Procurement Regulations as recommended by GAO. Coverage in the PR will also be provided so that inventories are not entrusted solely to those who are responsible for the custody of the equipment. This latter provision, for NASA installations, may be found in paragraph 6.105 of the Equipment Management Manual.

Wm. E. Lilly
NASA Comptroller

Attachment

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ATTACHMENT 1

COPY

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546

OFFICE OF THE ADMINISTRATOR JUNE 12 1975

Mr. Edgar M. Cortright
Director
Langley Research Center
NASA
Langley Station
Hampton, Virginia 23665

Dear Ed:

NASA has once again received serious criticism from the General Accounting Office for ineffectiveness in its property management. While we believe there are some overdrawn conclusions in the GAO report, the findings do include some verified weaknesses of long duration. If any of these weaknesses develop or persist at any Center, deficiencies may be expected to recur in the future which would sustain the GAO thesis that NASA management has not taken the necessary corrective and preventive measures despite repeated advisories from the GAO and NASA's own surveillance and audit teams. You will agree, I am sure, that the agency has had enough prompting on this subject.

Since your Center was informed after the Exit Conference with GAO in December of the GAO's findings, it is quite possible you have taken the steps necessary to correct any possible deficiencies at your Center. However, to assure that we are all stepping up to this problem squarely, I am asking all Centers to meet the prescribed standards in the NASA Equipment Management Manual and to correct any remaining conditions which could result in future deficiencies against the requirements of that Manual. In light of our apparent record in this field, we must have your personal involvement and contribution.

Note: Similar letters sent to all NASA Centers.

Enclosed are criteria 1/ developed for use in equipment management surveys by the Comptroller's Office. Also enclosed is a list of major property management weaknesses which have contributed to past findings of deficiencies. The latter is not necessarily a complete list of potential problem areas by any means but it embraces or underlies many of the inadequacies for which the agency has been criticized in the past. Please use this material, amplifying as the situation at your Center warrants, in the following measures:

1. Convey to your first and second line organization heads -- where the heart of good property management must lie -- the message of this letter and your determination that your Center will not be found lacking in any future survey.

2. Appoint a senior official who will conduct a complete appraisal of your Center's property management.

3. Report the results of the appraisal to me within 3 months. Included should be a date, not later than 6 months from the date of this letter, at which your Center will be prepared for review by an inspection team, to be appointed by me. The team will report to me.

I want you to know that I recognize that the data from which this GAO report was written did not specifically refer to your Center. However, available reports and information in the audit and property offices at Headquarters suggest that many of the Centers have given property management less priority than it deserves. As you know, we are accountable for all of the resources we are managing and that most certainly does include our property assets.

Sincerely,

E. S. Groo
Associate Administrator
for Center Operations

Enclosure

1/ GAO note: For the most part, these criteria consist of a series of management instructions prescribing procedures for identifying major weaknesses in property management. We removed the documents from NASA's reply in the interest of brevity.

BE DEC 20 1974

TO: Distribution

FROM: BE/Director, Supply and Equipment Management

SUBJECT: Property Management Deficiencies Cited in GAO Audit

In a recent exit conference here General Accounting Office representatives reviewed the preliminary results of property management audits at selected NASA centers. When the draft GAO report is officially received we will contact those centers in the preparation of a formal agency commentary.

It is the purpose of this letter, in the interim, to alert all centers to one of GAO's general comments about NASA's property management, to wit: that despite earlier discoveries of inadequacies in property management in GAO audits, and in internal NASA audits and surveys, the same deficiencies continue to go uncorrected. If this allegation can be conclusively supported, a serious criticism of NASA management will go on the record.

Some of the GAO's preliminary findings do have a familiar sound:

1. That equipment, received from contractors (or from other installations) following completion of contract performance, is frequently not capitalized when it should be in the records of the receiving installation. This is said to occur most often when the equipment was initially acquired for test and acceptance. Other equipment, acquired under certain object class funds, was expensed to the acquiring programs rather than capitalized -- despite the equipment having met all capitalization criteria.

2. That significant numbers of equipments continue to be "found-on-station" during cyclic inventories attesting to loose controls in receiving, documentation and preparation of records. (See our letter of July 15, 1974, on this subject.)

3. That property listings and accountable property custodians are being used in the taking of inventories -- contrary to policy (and common sense).

4. That reports of survey for lost, damaged and stolen property are not prepared or submitted in the required time period (30 days), compromising the investigation and disposition of such cases.

These allegations are particularly disturbing not only because similar or identical cases have been found to exist in the past and should have been long since corrected, but because they go to the heart of property accountability and permit the agency's critics to wonder aloud whether NASA really knows what it owns.

Therefore, we hope that the current cases are not substantially confirmed or are not really representative of current property accountability practices at the audited centers. At all centers we believe that management should take the opportunity to check procedures and controls, especially any found deficient in a previous audit or survey.

Original Signed by
William P. Risso

William P. Risso

DISTRIBUTION

Ames Research Center
Attn: A/Mr. L. Brennwald

Flight Research Center
Attn: A/Mr. P. Walker

Goddard Space Flight Center
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Johnson Space Center
Attn: JA/Mr. J. Piland

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Lewis Research Center
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Marshall Space Flight Center
Attn. A/Mr. J. Sheppard

NASA Pasadena Office
Attn: Mr. Earle Sample

National Space Technology Laboratories
Attn: MT-10-MGR/Mr. Waldo Dearing

Wallops Flight Center
Attn: DA/Mr. J. Robbins

PRINCIPAL OFFICIALS OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION RESPONSIBLE FOR THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION		
ADMINISTRATOR:		
James C. Fletcher	Apr. 1971	Present
George M. Low (acting)	Sept. 1970	Apr. 1971
Thomas O. Paine	Oct. 1968	Sept. 1970
James C. Webb	Feb. 1961	Oct. 1968
DEPUTY ADMINISTRATOR:		
George M. Low	Dec. 1969	Present
Thomas O. Paine	Mar. 1968	Oct. 1968
Robert C. Seamans, Jr.	Dec. 1965	Jan. 1968
Hugh L. Dryden	Oct. 1958	Dec. 1965
ASSOCIATE ADMINISTRATOR:		
Rocko A. Petrone	Mar. 1974	Present
Homer E. Newell	Oct. 1967	Mar. 1974
Robert C. Seamans, Jr.	Sept. 1960	Sept. 1967
ASSOCIATE ADMINISTRATOR FOR ORGANIZATION AND MANAGEMENT (note a):		
Bernard Moritz	Mar. 1974	Present
Bernard Moritz (acting)	Dec. 1973	Mar. 1974
Richard C. McCurdy	Oct. 1970	Dec. 1973
Bernard Moritz (acting)	May 1969	Sept. 1970
Harold B. Finger	Mar. 1967	May 1969
COMPTROLLER:		
William E. Lilly (note b)	Feb. 1967	Present
GODDARD SPACE FLIGHT CENTER		
DIRECTOR:		
John F. Clark	May 1966	Present
John F. Clark (acting)	July 1965	May 1966
Harry J. Goett	Sept. 1959	July 1965

	Tenure of office		
	From		To
JOHNSON SPACE CENTER			
DIRECTOR:			
C. C. Kraft, Jr.	Jan.	1972	Present
Robert H. Gilruth	Nov.	1961	Jan. 1972
MARSHALL SPACE FLIGHT CENTER			
DIRECTOR:			
William R. Lucas	June	1974	Present
R. A. Petrone	Jan.	1973	June 1974
Eberhard F. M. Rees	Mar.	1970	Jan. 1973
Wernher von Braun	July	1960	Mar. 1970

[a]Position established effective March 15, 1967.

[b]Position established in December 1972. Before that date, the Comptroller function was part of the office of the Associate Administrator for Organization and Management.

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