charged, inequities between contractors, and in some cases, reduced rent payments to the Government. This occurs because the regulation allows the contractors to compute rent based on overall allocations of the workload between Government and non-Government work according to the relationship of various factors—such as sales, labor hours, or machine hours—rather than computing rent machine-by-machine according to the ratio of shared usage of the particular machine.

Chairman PROXMIRE. You say the regulation allows and the contractors to compute rents. Those are the allocations you are talking about?

Mr. STAATS. Yes.

Chairman PROXMIRE. Do they have discretion? Can they do it on a different basis and choose the one most favorable to them?

Mr. STAATS. I think the regulation permits them. I think our quarrel is with the regulation.

Mr. HAMMOND. Basically, the regulation provides for rental in accordance with the value of the equipment and on the basis of usage. But in some cases for ease of administration and ease of computation, rent is computed on the basis of sales, a certain percentage of sales. We found in those cases, as indicated in our report, sometimes there was a less recovery in terms of rent than would have been had it been computed on the value of the property.

Chairman PROXMIRE. Have you made any study at all, or has anybody made any study of what would happen if you just didn't let them use this equipment for anything except Government work, period—that is it?

After all, there might be some losses to the contractor if you did that, but certainly there is an inequity. It seems to me it is very hard to assess fair rentals. You would solve a problem if you did this. Why not consider that possibility? It might be a very efficient and quick way of reducing the amount of Government-supplied equipment.

The incentive on the part of the contractor to insist on this Government-supplied equipment would be sharply reduced.

Mr. BAILEY. It might generate some difficult problems, too, Mr. Chairman, in terms of contractors setting up a production line where he has to put a particular piece of equipment in this line to perform, let's say, a milling operation or a lathe operation, something of this kind. This becomes a part of his total work in this area.

Chairman PROXMIRE. If it is, under that circumstance certainly he ought to buy it himself. Sell it to him. I can understand if you have an exceptional situation where the Government needs some kind of exotic equipment for a Vietnam action or some new antimissile, or atomic kind of construction that is new and different, and may only be used once and then discarded, under these circumstances. But if you are going to buy something that fits right into his regular assembly line operation that he can use anyway, and use any significant amount of time for his own commercial production, this is just unfair competition as well as exploitation of the taxpayer.

Why don't you consider, at least, this fairly radical suggestion? Consider the possibility of what would happen and ask the Defense Department. We will ask the Defense Department to try and justify their position in permitting any use of Government-supplied equipment.

Mr. STAATS. I assume you would. And also to be considered is the different situation you have where a plant is wholly in Government production as against a mixed commercial and Government contract plant.

Chairman PROXMIRE. Yes, or particular equipment that is bought by the Government for a particular purpose which should be used for that purpose only. See what the limits are. It may be that my suggestion here is wrong. I don't know. I would like to see it studied out.

Mr. STAATS. Most of the problem we are pointing out has to do with the contractor who has both commercial as well as Government production. It might well be that you have a different situation with a contractor who is exclusively engaged in production for Government use. We will consider it.

Chairman PROXMIRE. Fine.

DISPOSITION OF GOVERNMENT-FURNISHED PROPERTY

Mr. STAATS. We turn finally to the subject of disposition of Government-furnished property.

To promote the maximum utilization within the Government, serviceable or usable property is required to be screened prior to disposition.

The armed services procurement regulation provides that Government-furnished property, return of which has not been required by the Government at the conclusion of Government work, may be disposed of either by competitive sales or by negotiation. With respect to the latter, sales are required to be made at prices which are fair and reasonable, and not less than the proceeds that could reasonably be expected to be obtained if the property were offered for competitive sale.

This concludes our formal statement, Mr. Chairman.

NEED FOR LEGISLATION REGARDING CONTRACTOR-HELD EQUIPMENT

Chairman PROXMIRE. How do you feel about legislation in this area?

Mr. STAATS. You asked us in our previous hearing to consider this. We have not reached any conclusion as to what type of legislation. We have discussed it briefly since our previous discussion on the subject. It may very well be that legislation would be desirable in this area.

Chairman PROXMIRE. I hope you can give us a response on that as soon as you can. Also, we haven't really gone into the basis on which the rentals are computed and whether or not they are fair, if there is a comparison with competitors. It seems to me that this is something GAO might be able to do and come forward with useful recommendations.

Mr. STAATS. I think this would be a specific matter particularly growing out of our report that we can offer suggestions on.

Chairman PROXMIRE. At the present time, the records on the use of this Government-owned equipment in the hands of private contractors are kept by the private contractors; right?

Mr. STAATS. On use, yes.

Chairman PROXMIRE. The amount of time used for the private work and for the Government work. What kind of reports are made by the contractors now? How frequent and how comprehensive?

Mr. HAMMOND. I think the reports would vary depending upon the rental arrangement, like, for example, when the equipment is used and

charged on the basis of sales. Then at the end of the month the contractor would look at the sales commercially and to the Government and then the rent would be charged to the two in relation to sales. But we did find in our review that greater attention should be given to machine-by-machine utilization records so that the Government would have more precise information as to what use was made of the equipment in order to appropriately collect rent.

Chairman PROXMIRE. If there are no sales, there is no reimbursement, even if they produce for a commercial account but don't sell?

Mr. HAMMOND. That could create a problem.

Chairman PROXMIRE. Is the basic method of computing the rent on the cost of the equipment and on amortizing that cost over a period of time? To give a simple example, if you buy a million dollars worth of equipment, used 50 percent of the time commercially and 50 percent of the time for the Government. The Government would get back over a period of time $500,000, with interest? Is that the way it is done?

Mr. HAMMOND. There is a rate set up in the armed services procurement regulations that considers the value of the equipment.

For example, for a piece of equipment that is 2 years old, it would be a monthly rental charge of 1¾ percent of the cost of the equipment, plus installation and transportation.

Chairman PROXMIRE. How is that computed?

Mr. HAMMOND. I don't have the basis for that at this moment, although we could furnish you that for the record.

Chairman PROXMIRE. So if this equipment was used 50 percent of the time for private purposes, you would take one-half of 1¾ percent per month?

Mr. HAMMOND. Yes. If the equipment were used 50 percent of the time commercial for 1 month, it would be half of 1¾ percent of the value.

Chairman PROXMIRE. How do they compute the time element? Do they figure a 160-hour week?

Mr. HAMMOND. There are various methods. Sometimes the total value is used for an 8-hour-shift operation and some cases a longer period.

Chairman PROXMIRE. Depending on what the system is in the plant.

Mr. HAMMOND. That is right. It would vary.

Chairman PROXMIRE. Did you have anything further, Mr. Staats?

Mr. STAATS. This concludes our formal statement but it was our understanding that you had other matters that you wanted us to comment on.

One item you were interested in was the question of identical bids on proposals.

Chairman PROXMIRE. Maybe identical bids is the wrong word, but some kind of collusion which may develop where you had a negotiated price competition.

As I understand it, we have made real progress in reducing identical bids on advertised competitive bidding, but it seems very logical that you would have much more of a problem where you have the Government selecting two or three suppliers, as they do with a great deal of their procurement, and asking for bids between them. In most cases they would select similar suppliers and the firms would know each

other, the effective heads of the firms would have worked together. There would be every reason to suspect that under these circumstances the Government would have to be very alert and watchful.

I wondered if there was any way you could get at this particular problem.

Mr. STAATS. It is a very difficult matter. There are two different aspects. One is the identical bid problem and the other one is the one you refer to of collusive sharing of Government business. There is a provision in the Armed Services Procurement Regulation which simply indicates that this is one of several practices designed to eliminate competition and restraint of trade. But the term itself is not fully defined. There is an item in the certificate of independent price determination which is required by the armed services procurement regulations, section 1–115, which says that no attempt has been made or will be made to induce any other person or firm to submit or not to submit a bid or proposal for the purpose of restricting competition.

That is simply a statement of purpose and intent. When the certificate is suspected of being false, or there is indication of collusion, then the matter goes to the Department of Justice. But ordinarily this will not happen except when somebody makes a report or an allegation that this has happened in a particular case.

Chairman PROXMIRE. It strikes me there is another way we can get at this. As I understand it, the Truth in Negotiations Act and the other legislation applies primarily on negotiated procurement with a sole source. This is the area of its most common application. This is the area where most of us think of it as being most essential.

Mr. WEITZEL. It applies to negotiated procurement.

Chairman PROXMIRE. Does it apply to negotiated procurement where you have price competition?

Mr. BAILEY. It does not apply where there is adequate price competition.

Chairman PROXMIRE. This is the area where maybe it should apply, too. This is one way of getting at this. You can have adequate price competition in terms of having two, three or four people provide competition with each other. But here is the situation where the collusion is most tempting and where one would logically anticipate that there might be collusion. You know the difficulty with the General Electric case and others. I am not nearly as concerned where there are very few big suppliers who can get together and save enormous amounts of money. We have advertised competitive bidding and any number of people can come in.

Mr. BAILEY. It is my recollection at the time Public Law 87–653 passed the House, it would have covered all negotiated contracts, whether competitively negotiated or otherwise. But in the Senate the provision was added excluding contracts that were let pursuant to adequate price competition, prices based on catalog or market prices of items sold in substantial quantities to the general public.

Chairman PROXMIRE. The additional cost would not be much if we got into that, would it?

Mr. BAILEY. Industry representatives will say that this is a very expensive proposition, to get together these cost estimates, I think. But it is really hard to quantify what you would actually lose because the ones that should result in the larger amount of accumulation of data to support prices are the ones that are negotiated for complex military items that are ordinarily not subject to price competition.

Chairman PROXMIRE. Where we have competitive negotiations it would seem logical to provide that if the procurement is over a certain amount, say $1 million, there you ought to apply the full rigors of insisting on getting accurate cost data.

Mr. WEITZEL. Without reference to the policy question, I think the law does leave some leeway because it says "the requirements of the subsection," with respect to the furnishing of a certification and so forth, "need not be applied to contracts or subcontracts where the price negotiated is based on adequate price competition," and so forth. It doesn't absolutely exempt them.

Mr. BAILEY. That is correct. It is permissive rather than mandatory.

FEES FROM ARCHITECTS AND ENGINEERS

Chairman PROXMIRE. Let me ask you this other question. This is a question which concerned me quite a bit on architects and engineers being picked on a competitive basis.

Business Week of November 25 has this item. It says:

The drive within the government to introduce price competition into fees for the services of architects and engineers has been stopped cold in Congress by an uprising of engineering professional societies. Merit, not price, should be the sole criterion for picking engineers.

And it quotes a Congressman as saying that:

As Chairman of a strategic subcommittee on Government activities, he is in a position to enforce his warning to the Comptroller General to quit trying to introduce the price issue. The General Accounting Office opposes the traditional flat 6 percent for most engineering services. New York engineer Richard S. Tatlow III took charge of the engineers' battle against the GAO. By last week his group had convinced, the Congressman, that the present provisions on the subject are "Taut, beautifully drafted statutes."

I stuck my neck out and introduced legislation along this line and, of course, it was received with great "joy" by the architects and engineers in Wisconsin who let me know how they felt. What can you say to resurrect my battered corpse?

Mr. STAATS. We have been involved in this subject for a considerable length of time. The issue is not as indicated in this article that you referred to, merit versus price. We think the Government is not getting all the merit that it needs under the present procedure, if we want to be blunt about it.

Chairman PROXMIRE. And as we look around at some of the architectural beauties of Washington, I think it is pretty easy to document that.

Mr. STAATS. The present procedure that is being followed, in brief, is that a single contractor will be selected based upon the knowledge of the contracting agency of this individual's background, experience, and perhaps his interest in that particular type of construction. Negotiations will be entered into, including price. If they cannot satisfactorily reach an agreement, then they select a second contractor, and so on. We became concerned with this problem as a result of a situation in a contract, I believe, with the National Aeronautics and Space Administration. The House committee concerned with NASA matters asked us to review the matter further, looking at this as a part of a broader problem because it was the committee's view that they could not deal with the situation in NASA except in the framework of the Government-wide policy. And they were correct. We made an extensive analysis of this problem and it was our conclusion

that the 6 percent provision had, in fact, been violated, that the costs in a number of cases had exceeded the statutory limit of 6 percent. It was also our conclusion that a flat, arbitrary limit of 6 percent was not realistic from two standpoints:

One, it tended to cause a contracting agency to perhaps be a little less stringent if the costs were under 6 percent and, second, that in a number of cases it was quite obvious that 6 percent was an unrealistically low limitation.

So on both of these counts we felt that the 6-percent limit should be removed. The provision which the architect and engineering organizations have quarreled with is that we believe the present statutes do, in fact, require that there be negotiation. This does not mean that there cannot be two-step negotiations. This is the argument that these groups, I think conveniently, do not want to report. This two-step negotiation process is one in which you could engage in negotiations and discussions with a number of organizations and then limit price discussion to those which do come in with good proposals.

What we are in effect saying is that we do not think that price needs to be determinative, and, in fact, our asumption would be that in a very large number of cases this would not happen. It would be on the basis of the proposal, the merits of that proposal, rather than on the basis of the price alone.

We are, frankly, having great difficulty understanding why they feel that price would automatically govern, except for the general assumption that perhaps our organization and the Congress would be quarreling with any contract let where there is a lower bid.

This is a fear which is not fully justified or founded. It may be that it is not well understood, what two-step negotiation would involve, although we have had extensive discussions before and after our report with these organizations on the subject.

Chairman PROXMIRE. That seems to be a moderate and a careful statement. I would agree wholeheartedly with it. At any rate, it seems clear that you could hardly affect the situation adversely if you had some element of price competition involved. You would certainly be able to rely on a selection based on merit, as you say. The present system relies on political preference to some extent. We all know that. It is a fact of life. It also relies, by and large, on getting the same people to do the same job over and over again. Very often this eliminates an opportunity for some of the finest architects in the country, and keeps some of the engineers who ought to have the opportunity from getting into this work.

Mr. STAATS. Management consulting organizations that deal with the Government, and there are many of them, have become used to this two-step negotiation process. It has worked very effectively.

Chairman PROXMIRE. Theirs is certainly a profession in which the quality of the professionalism is of the greatest importance. You say they have been brought in on the basis at least a price element and a price consideration?

Mr. STAATS. Yes.

Mr. WEITZEL. Mr. Chairman, our view, we feel, has solid statutory support in this same Truth in Negotiations Act and in another provision which has not received as much public attention as the re-

quirement for the cost and pricing data. The same act of 1962 requires in negotiated procurements over $2,500 generally that there will be competitive negotiation, price and other factors considered. These are the same factors as are required as a basis for award under the Armed Services Procurement Act. Price is not the only factor. The award is to be made to the bidder whose offer, price and other factors considered, is most advantageous to the Government. We feel that by zeroing in on the charge of price competition or price bidding that there is being overlooked our feeling that the law requires some competitive negotiation on the basis of all pertinent factors, including the design, the relative capability of the bidders, and so forth.

Chairman PROXMIRE. Thank you, gentlemen, very, very much.

Mr. Staats, as you know, Senator Dominick of Colorado raised some points about negotiated bidding in a statement to this committee on November 29. There are some technical questions involved and I wish you would review these cases and give us your judgment on them for the record.

Mr. STAATS. We are prepared to do that. (See app. 11, p. 590, et seq.; see also DOD comments, p. 586.)

Chairman PROXMIRE. Members will be given 3 days for questions to witnesses and relevant material to be put into the record. (See app. 12, p. 604, for special questions and answers.)

I want to once again commend you and your very fine staff on a very helpful and informative performance. Thank you so much.

We will stand in recess subject to call of the Chair.

(Whereupon, at 12:20 p.m., the committee was recessed subject to call.)

[APPENDIXES FOLLOW]

APPENDIX 1

U.S. General Accounting Office

SUMMARY OF THE STATUS OF MATTERS OF INTEREST TO THE SUBCOMMITTEE ON ECONOMY IN GOVERNMENT, JOINT ECONOMIC COMMITTEE, NOVEMBER 27, 1967

1. Inventory Management
2. Accounting and Reporting System for Disposal Activities
3. Unfilled Orders for Air Force Materiel
4. Requirements for Aircraft Ground Support Equipment
5. Military Housing Construction
6. Consolidation of Field Organizations and Facilities
7. Competition in Procurement
8. Reporting of Negotiated Procurement Actions as Competitive or Noncompetitive by the Department of Defense
9. Real Estate Management
10. Savings and Economies to the Government as a result of General Services Administration Operations
11. Methods of Financing Agency Programs

1. Inventory Management

In response to the recommendations made by the Subcommittee in its report of July 1967, we have continued to give emphasis to the area of inventory management and stock control at the depots of the military departments, Defense Supply Agency, and the General Services Administration.

STOCK CONTROL

In its reply to our report on the need for improvements in the control of depot inventories, the Department of Defense generally concurred with our conclusions that increased emphasis and attention were needed at all management levels in order to improve the reliability and usefulness of the inventory records. They informed us that each of the military departments and the Defense Supply Agency had initiated specific programs designed to eliminate the types of inventory control problems cited in our report. They advised us that the need for the establishment of a special inventory study group would be considered after an evaluation has been made of the results obtained from the new programs. The Department of Defense has, however, recently awarded a contract to the Logistics Management Institute for a study to be made of a wide range of stock control problems.

We plan to maintain continuing contact with the military departments and the Defense Supply Agency efforts to carry out these new programs and revised procedures for improved inventory control at the depot level. We also plan to coordinate our work with that to be accomplished by Logistics Management Institute in this area so as to avoid any unnecessary duplication of effort.

As a continuation of our efforts toward identifying opportunities for improvement in the control of depot inventories in the Department of Defense, we are presently examining in further depth into the receiving and initial storage procedures and practices at selected supply activities of the military departments and the Defense Supply Agency. We anticipate that a preliminary report on the results of this examination will be issued to the Department of Defense in April 1968.

In addition to our work in the area of stock control, we have been looking into the related areas of control over shelf-life items, stockage of inactive items, utilization of inventories in long supply, controls over reparable items, distribution and redistribution, Military Standard Requisitioning and Issuing Procedures (MILSTRIP), and nonexpendable equipment.

SHELF-LIFE ITEMS

In the report of the Subcommittee on Economy in Government dated July 1967, it was recommended that the General Accounting Office and responsible executive agencies continue to identify short-shelf-life inventories and develop procurement and management programs to insure their maximum use. As of November 1966 the Department of Defense obtained, on a one time basis, a complete inventory of shelf-life items which showed a total inventory value of approximately $990 million. However, approximately 70 percent or $686 million of this amount represented recoverable items which are identified as shelf-life because a component of the item, such as a gasket, hose, etc., has a limited shelf-life. Therefore the actual Department of Defense inventory of only shelf-life items and components is significantly less than the $990 million.

We recently inquired into the status of the new instructions issued by the Department of Defense in November 1966, and found that they will not be fully implemented before September 1968. The military departments and the Defense Supply Agency indicated to us that extensive revisions to existing directives and data systems were required.

We also found that an agreement between the Department of Defense and the General Services Administration for accomplishing an accelerated sequential screening that would make items available for utilization by other departments or agencies was not reached until October 26, 1967. It appears that 6 months to a year will elapse from the date of initial reporting of shelf-life items by the military departments and the Defense Supply Agency and their reported utilization by other agencies before sufficient data will be available to determine the effectiveness of the system.

We are currently evaluating the progress made by the General Services Administration since it established, in May 1966, procedures for the cataloging, procurement, inventory management, storage and distribution, and quality control surveillance of short-shelf-life stocks under its control. We are particularly interested in determining whether the Federal Stores Stock management system adequately reports the extent and significance of losses through deterioration of short-shelf-life stock. Indications thus far are that there may be opportunities for improvements.

We are also interested in the effectiveness of implementation of the May 1966 order at the warehouse level. We have noted some instances of noncompliance but have not yet formed any overall judgments on this matter.

INACTIVE ITEMS

We recently completed a review of low-cost items in the Department of the Navy and the Defense Supply Agency which revealed that 860,000 spare parts stocked by these two organizations had had no demand for appreciable periods of time. To the extent that these items do not warrant retention and are eliminated from the supply systems, significant savings in management and storage costs can be realized by the Government.

When we brought our findings to the attention of Department of Defense officials, they informed us that the program for the identification and review of inactive items had to be postponed because of a higher priority program governing the transfer of items from the military services to DSA management. However, they indicated the program would be reactivated early in 1968. We did find that some inactive items are currently being eliminated from the supply systems as items are screened for transfer to DSA.

We intend to maintain close surveillance over this area in order to observe the progress made by the Department of Defense in eliminating inactive items from their inventories.

We also completed recently a review and have submitted a draft report to the General Services Administration for comment, on the need for the Administration to improve its cost information system to provide information useful to determination as to the most advantageous method of supplying the requirements of Federal agencies for specific items, i.e., through the stores stock program, under a Schedule supply contract, or through decentralized purchasing, and to provide information useful in establishing optimum inventory levels and determining appropriate stock position patterns.

We have not yet received the General Services Administration's comments on our findings or on our proposals for improvement.

PROCEDURES FOR LONG SUPPLY ASSETS UTILIZATION SCREENING

In October 1967 we reported to the Secretary of Defense on the results of our examination into the effectiveness of the automated screening operation for matching material available at various locations in the Department of Defense with the needs at other locations.

Department of Defense officials generally agreed with our findings that the centralized screening system has not been fully effective because:

1. The inventory control points do not, in many instances, provide the Defense Logistics Services Center with the required information on needed or available material.
2. The information reported is not always accurate or current.
3. The lack of appropriate and timely decisions by the inventory control points has resulted in improper deletion of needed information in the screening process.

We have suggested that the Office of the Secretary of Defense look into the desirability of giving the Defense Supply Agency additional authority in order to facilitate improved management control over the materiel utilization program.

RETURN OF REPAIRABLE ITEMS FOR REPAIR AND REUSE

In our review of the Department of the Army procedures and practices for the return of unserviceable, repairable parts to the supply system we found that substantial quantities of these parts were not returned by the using installations. The two principal reasons for this were (1) improper recoverability coding in publications issued by the National Inventory Control Points, and (2) lack of adequate control and follow-up action by supply activities to assure the return of reparable items by the using oranizations.

We suggested that the Secretary of the Army (1) instruct the National Inventory Control Points to design proceudres which will insure the correctness of codings in their publications, and (2) direct a review, and strengthening as necessary, of procedures at Army installations to provide a more effective means of exercising control over the stockage and turn-in of unserviceable recoverable parts.

We are currently examining into the procedures and practices for the return of repairable items in the Departments of the Air Force and Navy.

DISTRIBUTION AND REDISTRIBUTION

In a recently completed review of the redistribution of base excess supply materials in the Department of the Air Force, we found that approximately 34 percent of the shipments of excess supply items from Air Force bases to depots were unnecessary or uneconomical. These items were either already Air Force-wide long supply or excess positions, or their value was less than the costs incurred for their return. We estimated that costs could be reduced by more than $5 million annually if these types of items were not returned to the three depots included in our review.

Air Force officials have substantially agreed with our findings and have informed us that they have instituted actions that should correct this condition.

We have initiated a review of the procedures and practices for the return of excess supply materials in the Department of the Army. Although our work is not conclusive at this time, we do have indications that similar conditions are present in the Army.

MILITARY STANDARD REQUISITIONING AND ISSUE PROCEDURES (MILSTRIP)

During the first half of calendar year 1967 we performed a limited examination at various installations of the Departments of the Army, Navy and Air Force of the processing of requisitions under the Military Standard Requisitioning and Issue Procedures system.

We found that large numbers of requisitions prepared by military using units in the Far East could not be processed on data processing equipment in a normal manner because they contained erroneous or noncurrent information. This was caused primarily by (1) carelessness in the preparation of the requisitions, (2) inadequate editing of the requisitions before forwarding them to the next higher supply level, and (3) noncurrent catalog data at all levels of supply.

We plan to forward a draft report on our findings to the Secretary of Defense

in the near future. We are proposing that certain steps be taken to ensure more timely distribution of catalog data to using units, and that commanders stress the importance of accurate preparation of requisitions.

NONEXPENDABLE EQUIPMENT

In November 1967 we issued a report to the Congress on our follow-up evaluation of the actions taken by the Air Force to correct deficiencies in its management of nonexpendable equipment. We had previously reported on this subject in June 1961 (B–133361). Although the Air Force has made significant improvements, we found that further improvements are needed to obtain accuracy in the reports of assets in use and validity of equipment requirements.

Our review showed that over $8 million of the computed requirements for fiscal year 1966 were not needed. In addition, about $20 million worth of procurement requirements were questionable. Approximately $3 million of planned procurements were cancelled as a result of our discussions with Air Force officials concerning these conditions.

We believe the invalid and questionable equipment authorizations were caused by—

Inventory managers increasing equipment requirements, without the adequate research or analysis of available data.

Failure of some commands either to forecast or to properly forecast equipment authorizations, and

Failure of the bases either to make effective equipment utilization surveys, as required, or to otherwise follow prescribed procedures.

The Air Force generally concurred in our findings and proposals for improvements in the equipment management system. We have recommended that at the earliest possible opportunity the Air Force make every effort to incorporate sufficient data in its system to provide an effective means of verifying the accuracy of reported inventories of in-use equipment.

As part of our continuing reviews of supply management activities of the Air Force, we intend to inquire into the effectiveness of its actions to improve management controls over nonexpendable equipment.

2. ACCOUNTING AND REPORTING SYSTEM FOR DISPOSAL ACTIVITIES

The need for a uniform accounting and reporting system for Department of Defense disposal activities was discussed during hearings held by this Committee in May 1967. The Department of Defense had advised the GAO that a new accounting and reporting system had been developed after special consideration of the findings and recommendations reflected in our report of March 18, 1966, (B–140389), and DOD internal audit report dated December 1966. We were advised that the new system was established to provide a uniform cost accounting structure and procedures for accumulating and reporting cost and performance data pertaining to all disposal operations.

A target date of July 1, 1967, was set for implementation of the new system. The new system, however, was not implemented on this date and has not yet been implemented.

In February 1967, the proposed system had been referred to the Military Services for review and coordination. We have been informed that coordination could not be obtained because the Services objected to the proposed detailed cost accounts and the requirement that individual disposal activity reports be submitted directly to the Defense Supply Agency. We were also informed that while DOD was attempting to resolve these objections, they were overtaken by time and in view of the many changes scheduled in the accounting systems for July 1, 1967, (Project PRIME), it became necessary to establish a cut-off for further mandatory system changes. The new target date for implementation of the disposal accounting and reporting system is July 1, 1968. At the present time, DOD is attempting to clarify definitions of reimbursable expenses and establish an interim reporting system.

3. UNFILLED ORDERS FOR AIR FORCE MATERIEL

The Air Force depots had unfilled orders (backorders) for materiel amounting to $875 million as of May 31, 1966. Our review at 9 Air Force bases in the United States showed that about $1.224.000 or 22 percent of the backorders, included in our tests, were not supported by valid requirements. Further, our visit to 4 depots

revealed unrecorded assets in the warehouses amounting to about $893,000. As a result, unrecorded assets valued at $444,000 were released for shipment against backorders, some of which were for Southeast Asia.

We believe that our review demonstrated a significant problem which could be alleviated by taking actions, as we proposed, to identify and cancel backorders not supported by valid requirements. Such actions include special physical inventories for items on backorder at both the base and depot level.

4. Requirements for Aircraft Ground Support Equipment

In November 1967, we reported to the Congress on our review of determination of requirements for aircraft ground support equipment by the Departments of the Navy and the Air Force (B–152600). This review was directed primarily toward determining whether the selection, authorization, and purchase of F–4 ground support equipment was properly correlated with actual needs.

We found that the costs for the F–4 weapons system could have been significantly reduced had the Navy and Air Force performed adequate reviews of the need for certain F–4 ground support equipment and of its utilization in the field.

Our review of 562 ground support equipment items, showed that authorized allowances for 129 (23 percent) were questionable. We also found that if the Navy and the Air Force had effectively coordinated their needs in the selection of this type of equipment the cost of the aircraft program could have been reduced by over $1.2 million.

In addition, we believe that costs amounting to as much as $12.5 million could have been avoided, or deferred, had the Navy and Air Force properly considered all available equipment, and losses of aircraft, at the time F–4 aircraft ground support equipment requirements were computed.

The Deputy Assistant Secretary of Defense (Materiel), by letter dated June 19, 1967, informed us that the Department of Defense concurred generally with our findings and conclusions. The Department's reply identified procedures which the Navy and Air Force have developed for the overall management, selection and procurement of support equipment required for subsequent joint service aircraft programs.

We believe that the corrective actions outlined, if properly implemented, should assist in preventing recurrences of the situations disclosed by our review. We will inquire in our future reviews into the effectiveness and adequacy of the new procedures and other actions to be taken.

5. Military Housing Construction

Recently the General Accounting Office furnished a draft report for comment to the Secretary of Defense on its review of the comparison of the cost and quality of military family housing with private housing. The draft brings out that new private housing being built in the area surrounding the installations reviewed was generally selling for less than the Government paid for comparable size military units constructed on base for use of military personnel. The private housing used for costs and quality comparisons were single family units, whereas the military housing generally consisted of duplex units or multi-family apartment units. Too, the private housing, in most instances, had more desirable features than the military housing such as garages, fireplaces, or basements.

While the military houses contained some materials of higher quality than those used in the construction of private housing, there is some doubt that the useful life of the military housing was extended significantly by such materials. In fact, the costs to maintain military housing and comparable private housing seemed about the same.

It appeared that the major reasons for the higher cost of the military housing were that (1) military construction standards and practices were not as economical as those normally followed by Federal Housing Administration and industry, (2) inspections of construction on military projects were more frequent and required more rigid adherence to specifications than those which industry is accustomed to under Federal Housing Administration standards, thereby adding to the cost of construction, and (3) at some locations, the wage and labor rates paid on Government contracts were higher than those prevailing in the area for the construction of private housing. A number of suggestions were made to the Secretary of Defense which, if followed, should help in obtaining the full dollar value for the money being spent for military housing and result in military

personnel being furnished accommodations which would more closely correspond to those now being occupied by civilian counterparts.

To date, a reply has not been received from the Secretary of Defense.

6. Consolidation of Field Organizations and Facilities

At the hearings in May 1967 we reported on the potential savings to be achieved by consolidating certain organizations and facilities which we had reviewed and of our intentions to review additional activities. The status of Department of Defense actions on reviews completed and of new reviews undertaken by us are as follows:

FACILITIES FOR RECRUITING MILITARY PERSONNEL

In the past, the four military services were maintaining separate field recruiting organizations and facilities substantially in excess of their combined needs. Following our report in June 1966, the Department of Defense issued a directive establishing uniform policies and procedures for providing adequate space for use by recruiting offices and stations and for co-locating such facilities to the maximum extent practicable.

With respect to the progress the Department of Defense has made, we have been advised that it plans to reduce the number of recruiting locations in 14 large metropolitan areas from 524 to 186 locations. In this connection, as of September 30, 1967, 32 recruiting sites have been co-located. It is planned that the remaining 154 co-locations will be accomplished by the fourth quarter of fiscal year 1969.

MOTION PICTURES

During a preliminary survey of the management and utilization of photographic facilities within the Department of Defense, the General Accounting Office found strong indications that the Army and the Navy motion picture production facilities were not being used to capacity and that the Air Force planned to establish a prime motion picture production center at Norton Air Force Base, California, at an estimated cost of $7 million. In June 1967, a letter report of the General Accounting Office was transmitted to the Secretary of Defense setting out views and observations that the Army Pictorial Center, Long Island, New York, appeared to have sufficient capacity to absorb a substantially increased workload comparable to the requirements of the Air Force. It appeared that it would be most feasible for the Air Force motion picture activities to be combined at the Army Pictorial Center. It was suggested to the Secretary of Defense that the Norton project be delayed until he had considered the observation in the letter report.

By letter dated August 29, 1967, however, the General Accounting Office was informed by the Assistant Secreary of Defense (Administration)—replying for the Secretary of Defense—that combining the Air Force motion picture activities at the APC is not considered feasible. The Assistant Secretary stated that "* * * such a combining would raise difficult interface problems by separating the Air Force motion picture production, processing, distribution and depository from other mission elements which represent an effective integrated system. I therefore consider it appropriate for the Air Force to proceed with plans for construction at Norton AFB."

MILITARY CALIBRATION SYSTEMS AND LABORATORIES

We have surveyed the establishment and operation of calibration laboratories by the Departments of the Army, Navy, and Air Force. The Survey was based primarily upon a review of the laboratories in the Puget Sound area of the State of Washington, but we also evaluated the management control exercised by higher command levels within the services and by the Department of Defense (DOD).

There are at least six separate calibration systems in the Department of Defense: one in the Air Force, one in the Army, and at least four in the Navy. These systems consist of a large number of calibration laboratories at the base level to calibrate test and measurement equipment, a lesser number of secondary level laboratories to calibrate the instruments used by the base level laboratories, and a limited number of primary level laboratories to calibrate the instruments of the secondary laboratories. The instruments of the primary laboratories are calibrated by the National Bureau of Standards.

We were advised that these calibration systems and their component laboratories had been established substantially without interservice coordination and without DOD guidance or direction.

The responsibility for providing calibration services is thus dispersed throughout the military department, and, with the exception of the Air Force, each major command activity separately determines the calibration capabilities needed to support its individual mission. Our study showed that, altogether, the three services were operating about 280 calibration laboratories in the United States, Far East, and Europe.

We also noted that 36 geographical areas within the United States, including the Puget Sound area, had three or more separate military calibration laboratories within 95 miles or less of one another. For example, military calibration laboratories were concentrated in the following areas:

Area	Number of laboratories	Maximum statute miles between laboratories
Norfolk	9	65
Los Angeles	9	95
San Francisco	9	75
Washington, D.C.	6	20
Baltimore	5	50
Puget Sound	7	95

We were informed that the total investment in equipment associated with military calibration laboratories was about $66,000,000 in 1963 and by December 1966 it had risen to about $115,200,000.

The seven military calibration laboratories in the Puget Sound area, located within 6 to 95 miles of one another, were individually established and expanded during the period from 1956 to 1965 as parts of separate calibration systems developed to meet the needs and requirements of the individual services or major commands within a service. Our preliminary studies and discussions indicate that these laboratories, which have an investment of about $1,300,000 in equipment alone, have significant duplication of facilities and that much of the equipment of each laboratory is in actual use for only a small percentage of its available time. Because of the technical nature and variety of the equipment, however, we were unable to determine the full extent of unneeded duplication, without performing a more detailed review.

The present proliferation of military calibration systems and laboratories appears to have been caused by a dispersal of authority among major commands within the Army and Navy and an absence of coordination from the Department of Defense.

The Department of Defense has a program designed to encourage voluntary interservice support initiated at the operating level and thus achieve greater utilization of facilities and eliminate and avoid unnecessary duplications. This Defense Retail Interservice Logistic Support Program appears to have been quite successful to date, having achieved, according to a recent DSA study, interservice support agreements with measurable benefits of $26,000,000 at a reported cost of $29,000. We believe, however, that even greater benefits may be realized through increased participation in the program by higher commands.

The current program seems to be most successful when dealing with functions that lie fully within the control of commanders at an operating level. We have noted, however, that functions, such as calibration, which are part of a service-wide system, do not respond to this program as readily as functions that lie fully within the control of local commanders. We believe that interservice calibration support on a significant scale can be more readily achieved by introducing, at the planning or major command level, a program similar to the Defense Retail Interservice Logistic Support Program.

We advised the Secretary of Defense of our survey findings and observations in a letter dated October 6, 1967. We have not as yet received his comments.

SERVICE-TYPE ACTIVITIES

Since at least 1960 the Department of Defense has had a policy that the military services should jointly utilize support facilities wherever possible. The Gen-

eral Accounting Office has a review under way at two locations to ascertain whether the above policy is being carried out with respect to maintenance of facilities in areas where there are concentrations of military installations. The areas we are reviewing are Oahu, Hawaii, and Norfolk, Virginia. Findings to date indicate that further centralization of maintenance functions at these locations should provide substantial savings in maintenance expenditures.

7. Competition in Procurement

Contracts negotiated on the basis of adequate price competition represent a significant portion of all contracts negotiated by the Department of Defense during the past three years. DOD statistics indicate that contracts negotiated on the basis of price and other competition aggregated about $5.5 billion in fiscal year 1965, $9.8 billion in fiscal year 1966, and $11 billion in fiscal year 1967.

Public Law 87–653 provides that in the award of a negotiated contract over $100,000, cost or pricing information and a certificate need not be obtained in instances where the contract price is based on adequate price competition.

The Department of Defense in its procurement regulations defines adequate price competition and sets out general guidelines for the use of contracting officials. The guidelines provide that price competition exists if offers are solicited on the basis that the contract is to be awarded to the responsive and responsible offeror submitting the lowest evaluated price and at least two offerors who can satisfy the Government's requirements independently contend for the contract by submitting priced offers responsive to the expressed requirements of the solicitation.

If these conditions are met, contracting officials may presume that price competition is adequate unless they determine that the solicitation was unreasonably restricted, the low offeror had such an advantage over other competitors that he was immune to the stimulus of competition, or the lowest price was not reasonable. The determination of whether there is adequate price competition for a given procurement is largely a matter of judgment on the part of contracting officials.

We are currently performing a review to determine how these guidelines are being applied by contracting officials and whether there is a need for additional or revised instructions pertaining to contracts negotiated on the basis of this exception to the requirement for obtaining certified cost or pricing information. Our work has not progressed to the point we can draw any conclusions.

8. Reporting of Negotiated Procurement Actions as Competitive or Noncompetitive by the Department of Defense

At the May 1967 hearings we stated that a significant number of the procurement actions valued at $2,500 and under as well as other actions in excess of $10,000 each, were classified and reported as competitively awarded, which, in our opinion, were awarded under noncompetitive conditions. Our work showed that the primary causes for these misclassifications stemmed from inadequate criteria in the Armed Services Procurement Regulation, the manner in which the Regulation was applied, and from the format of reports used to report the procurement actions. We felt that the Regulation needed revision to provide additional guidance to contracting officers for classifying and reporting of negotiated procurement actions. In September, 1967 the Department of Defense issued its revised instructions. The revisions, if appropriately applied by contracting officers, should improve the reporting of negotiated procurement actions.

With respect to negotiated procurement actions of $2,500 and under, the Department has provided that these actions be reported as noncompetitive unless it is economically feasible to record and tabulate the price competition status of such actions.

Among the more important changes in determining whether price competition existed in procurements in excess of $2,500, is the general requirement that at at least two offers should be received from responsible offerors capable of satisfying the Government's requirements. In the past, one offer would be classified as competitive so long as two or more bids had been solicited. The proposed changes still permits the reporting of one offer as competitive where offers were solicited from two or more firms who normally contend for the same or similar items. However, provision is made that contracting officers exercise sound judgment in

evaluating the relevant information concerning the reporting of a transaction as price competitive.

We plan to test the effectiveness of the revised procedures in our future work.

9. Real Estate Management

Related to the Subcommittee's continuing interest in the management of real estate owned by the Federal Government, we have recently completed and will shortly report on a review of the need for land held by the Coast Guard in 4 of the 12 Coast Guard Districts.

Our review showed that the Coast Guard was retaining land which seemed be be excess to its present or planned needs because Coast Guard Headquarters' instructions did not specifically require, and Coast Guard district offices had not developed, a program for systematically and continuously reviewing land holdings. We found that about 1,500 of the 11,435 acres held by the 4 districts may be excess to needs. Information supplied by local realtors and Coast Guard district officials indicated that about 400 of the 1,500 acres had a value of about $250,000. We did not obtain valuation information for the remaining 1,100 acres.

The Commandant of the Coast Guard in a letter dated August 23, 1967, agreed that instructions were needed for a systematic evaluation of the Coast Guard's land holdings, and stated that an instruction will be issued to reemphasize the necessity for an active real property management board in each district. He stated also that the instruction will include specific criteria for retention and disposal of real property, and provide for a regular review of operational requirements in relation to property holdings.

10. Savings and Economies to the Government as a Result of General Services Administration Operations

In its July 1967 report the Subcommittee suggested that the General Accounting Office review the report submitted by GSA on the savings and economies realized and give consideration to whether similar savings might be obtainable elsewhere in the Government. The report was entitled "Savings and economies to the Government as a result of GSA operations, fiscal years 1965 and 1966", and for fiscal year 1966 showed a total savings and economies figure of about $1.6 billion.

The principal savings and economies reported by GSA for 1966 were—

$363.1 million—Savings from large volume buying of supplies and materials for distribution through the GSA supply system and FSS schedule purchasing by using agencies.

$952.0 million—The transfer of excess personal and real property among Federal agencies for further Federal use.

$138.0 million—Proceeds from sales of personal property ($13.0 million) and real property ($125.0 million).

$90.0 million—Rehabilitation of personal property and distribution of such property through the GSA supply system.

General Services Administration operates under the mandate of the Federal Property and Administrative Services Act and provides a host of direct services to other agencies of the Federal Government as well as policy guidance in the "general services" field. Almost all the savings reported by GSA relate to these Government-wide responsibilities. Accordingly, the savings do not represent opportunities generally applicable to other agencies of the Government, although such savings may serve to emphasize to them the importance of cooperating with GSA in its endeavors.

GSA has an established system for compiling annual savings figures used in its annual report and elsewhere. The figures reported to the Subcommittee were drawn from this system and appear to have been intended to show the *gross* savings and economies resulting from its activities.

The Subcommittee has requested that we verify "the reality of net savings." Generally speaking, the figures reported by GSA were not intended to show *net* savings in the sense that (1) all GSA costs were deducted, or (2) the GSA cost of carrying on an activity was less than the costs which would have been incurred by the Government if the activity had been carried on by each of the benefiting agencies. Also, the figures reported for property transferred and rehabilitated are based on acquisition cost and, for purposes of estimating net savings, need be qualified by considerations such as condition, nature of use by

the receiving agency, and the proceeds which might have been obtainable through sale.

In examining the GSA report, we have noted three matters which warrant specific comment:

1. The $952.0 million in savings reported under the reutilization program includes $233 million representing properties which were withdrawn from excess status by the agencies which had previously reported them as excess to their needs. GSA has informed us that these withdrawals are included because (a) it expends some effort in processing the reports of excess property and attempting to achieve other agency utilization prior to withdrawal and (b) withdrawal for reuse by the reporting agency avoids expenditures for new procurement to the same extent as would be the case had the property been transferred to another agency. We believe that, except where clear evidence exists to the contrary, such withdrawals should be considered as corrections of declarations of excess properties by the holding agencies. We did not attempt to establish what part of the $233 million in withdrawals would be appropriate for reporting.

2. The report omits the savings on intercity telephone calls realized through the Federal Telecommunications System. GSA studies show that savings amounted to about $62 million in 1966.

3. The reported figures for 1966 show savings of $0.2 million from the motor pool program. This is in error. The backup material shows savings of $19 million.

Subject to the foregoing comments, we found that generally the reported savings and economies were adequately described, based on reasonable assumptions and appropriately supported. Minor exceptions, which do not materially affect the total reported savings, will be discussed with GSA.

11. Methods of Financing Agency Programs

In its July 1967 report, the Subcommittee requested the General Accounting Office to provide to the Congress from time to time a summary of methods of financing Government programs other than through direct appropriations.

Our previous survey in this area was performed at the request of Congressman Thomas B. Curtis, and resulted in our report to him dated May 8, 1967. The report was made available to the Subcommittee for use during its hearings held in May 1967.

In response to the Subcommittee's request, we plan to review laws enacted through the first session of the 90th Congress and subsequent to the date of the information included in our May 8, 1967, report, and furnish a supplemental report to the Subcommittee in about March 1968. In the future we plan to prepare a complete report on this subject as of the close of each Congress, giving consideration to ways of improving the usefulness of the information provided through refining the types of information to be reported and the criteria by which the various methods of financing may be classified.

APPENDIX 2

TRUTH IN NEGOTIATIONS ACT

PUBLIC LAW 87-653, 87TH CONGRESS, H.R. 5532, SEPTEMBER 10, 1962

AN ACT To amend chapter 137, of title 10, United States Code, relating to procurement

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title 10 of the United States Code is hereby amended as follows:

(a) Subsection 2304(a) is amended to read as follows:

"(a) Purchases of and contracts for property or services covered by this chapter shall be made by formal advertising in all cases in which the use of such method is feasible and practicable under the existing conditions and circumstances. If use of such method is not feasible and practicable, the head of an agency subject to the requirements for determinations and findings in section 2310, may negotiate such a purchase or contract, if—".

(b) Subsection 2304(a)(14) is amended to read as follows:

"(14) the purchase or contract is for technical or special property that he determines to require a substantial initial investment or an extended period of preparation for manufacture, and for which he determines that formal advertising would be likely to result in additional cost to the Government by reason of duplication of investment or would result in duplication of necessary preparation which would unduly delay the procurement of the property;".

(c) Section 2304 is amended by adding a new subsection as follows:

"(g) In all negotiated procurements in excess of $2,500 in which rates or prices are not fixed by law or regulation and in which time of delivery will permit, proposals shall be solicited from the maximum number of qualified sources consistent with the nature and requirements of the supplies or services to be procured, and written or oral discussions shall be conducted with all responsible offerors who submit proposals within a competitive range, price, and other factors considered: *Provided, however,* That the requirements of this subsection with respect to written or oral discussions need not be applied to procurements in implementation of authorized set-aside programs or to procurements where it can be clearly demonstrated from the existence of adequate competition or accurate prior cost experience with the product, that acceptance of an initial proposal without discussion would result in fair and reasonable prices and where the request for proposals notifies all offerors of the possibilty that award may be made without discussion."

(d) The second sentence of subsection 2306(a) is amended by subsituting "(f)" for "(e)".

(e) Section 2306 is amended by adding a new subsection as follows:

"(f) A prime contractor or any subcontractor shall be required to submit cost or pricing data under the circumstances listed below, and shall be required to certify that, to the best of his knowledge and belief, the cost or pricing data he submitted was accurate, complete and current—

"(1) Prior to the award of any negotiated prime contract under this title where the price is expected to exceed $100,000;

"(2) Prior to the pricing of any contract change or modification for which the price adjustment is expected to exceed $100,000, or such lesser amount as may be prescribed by the head of the agency;

"(3) Prior to the award of a subcontract at any tier, where the prime contractor and each higher tier subcontractor have been required to furnish such a certificate, if the price of such subcontract is expected to exceed $100,000; or

"(4) Prior to the pricing of any contract change or modification to a subcontract covered by (3) above, for which the price adjustment is expected to exceed $100,000, or such lesser amount as may be prescribed by the head of the agency.

"Any prime contract or change or modification thereto under which such certificate is required shall contain a provision that the price to the Government, including profit or fee, shall be adjusted to exclude any significant sums by which it may be determined by the head of the agency that such price was increased because the contractor or any subcontractor required to furnish such a certificate, furnished cost or pricing data which, as of a date agreed upon between the parties (which date shall be as close to the date of agreement on the negotiated price as is practicable), was inaccurate, incomplete, or noncurrent: *Provided*, That the requirements of this subsection need not be applied to contracts or subcontracts where the price negotiated is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, prices set by law or regulation or, in exceptional cases where the head of the agency determines that the requirements of this subsection may be waived and states in writing his reasons for such determination."

(f) The first sentence of subsection 2310(b) is amended to read as follows: "Each determination or decision under clauses (11)–(16) of section 2304(a), section 2306(c), or section 2307(c) of this title and a decision to negotiate contracts under clauses (2), (7), (8), (10), (12), or for property or supplies under clause (11) of section 2304(a), shall be based on a written finding by the person making the determination or decision, which finding shall set out facts and circumstances that (1) are clearly illustrative of the conditions described in clauses (11)–(16) of section 2304(a), (2) clearly indicate why the type of contract selected under section 2306(c) is likely to be less costly than any other type or that it is impracticable to obtain property or services of the kind or quality required except under such a contract, (3) clearly indicate why advance payments under section 2307(c) would be in the public interest, or (4) clearly and convincingly establish with respect to the use of clauses (2), (7), (8), (10), (12), and for property or supplies under clause (11) of section 2304(a), that formal advertising would not have been feasible and practicable."

(g) Section 2311 is amended to read as follows:

"§ 2311. Delegation

"The head of an agency may delegate, subject to his direction, to any other officer or official of that agency, any power under this chapter except the power to make determinations and decisions under clauses (11)–(16) of section 2304(a) of this title. However, the power to make a determination or decision under section 2304(a)(11) of this title may be delegated to any other officer or official of that agency who is responsible for procurement, and only for contracts requiring the expenditure of not more than $100,000."

(h) The amendments made by this Act shall take effect on the first day of the third calendar month which begins after the date of enactment of this Act.

Approved September 10, 1962.

APPENDIX 3

SECRETARY NITZE'S MEMO OF SEPTEMBER 29, 1967, AND VIEWS THEREON BY THE COMPTROLLER GENERAL

THE SECRETARY OF DEFENSE,
Washington, September 29, 1967.

Memorandum for: Secretaries of the Military Departments.
Assistant Secretary of Defense (Comptroller).
Assistant Secretary of Defense (I. & L.).
Directors of Defense Agencies.

Subject: Access to cost performance records on noncompetitive firm fixed price contracts.

I have given careful consideration to the arguments for and against access to contractor post-award cost performance records on noncompetitive firm fixed price contracts, for the purpose of determining the degree of contractor compliance with PL 87–653. Clearly, it has been and remains our policy that in firm fixed price contracts the cost and profit consequences are the full responsibility of the contractor since he assumes all the risk of performing in accordance with the contract. Likewise, it is our policy that such contracts be used only where there exists a reliable basis for judging reasonableness of contractor cost estimates. Where such a basis does not exist, other contract forms should be used.

The Department of Defense is required to conduct a program of review and audit sufficient to ascertain that the cost or pricing data submitted by contractors in connection with the negotiation of noncompetitive firm fixed price contracts were current, accurate and complete as required by PL 87–653. It is our policy to make such audits, as fully as possible, prior to completing the negotiation of the contract. However, when it is necessary to provide assurance that defective cost or pricing data were not submitted, audits should also be conducted of actual costs incurred after contracts are consummated. To assure that such post-award audits may be conducted when deemed appropriate, action shall be taken to include in all noncompetitive firm fixed price contracts involving certified costs or pricing data, a contractual right to have access to the contractor's actual performance records.

Circumstances which may dictate the use of a post-award cost performance audit include such cases as those where: (1) factors of urgency in placing the initial procurement were clearly present; (2) material costs are a significant portion of the contractor's total cost estimate; (3) a substantial portion of the contract is proposed for subcontracting; or (4) there was a substantial interval between completion of the pre-contract cost evaluation and agreement on price.

In directing this action, I wish to make it clear that the purpose of any post-award cost performance audit, as provided herein, is limited to the single purpose of determining whether or not defective cost or pricing data were submitted. Access to a contractor's records shall not be for the purpose of evaluating profit-cost relationships, nor shall any repricing of such contracts be made because the realized profit was greater than was forecast, or because some contingency cited by the contractor in his submission failed to materialize—unless the audit reveals that the cost and pricing data certified by the contractor were, in fact, defective.

I desire that the Assistant Secretary of Defense (Installations and Logistics) and the Assistant Secretary of Defense (Comptroller) issue implementing instructions to place the above policies into effect.

PAUL H. NITZE.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., October 30, 1967.

HON. WILLIAM PROXMIRE,
United States Senate,

DEAR SENATOR PROXMIRE: In view of your interest in the implementation of Public Law 87–653 by the Department of Defense, we are offering our views on a memorandum issued by the Deputy Secretary of Defense dated September 29, 1967, on *access to cost performance records on noncompetitive firm fixed-price contracts.*

The memorandum is addressed to the Secretary of the Military Departments, the Assistant Secretaries of Defense (Comptroller) and (I. & L.) and Directors of Defence Agencies. It contains statements on contracting and auditing policies of the Department of Defense and *directs the Assistant Secretaries of Defense to issue implementing instructions to place the policies, summarized below, into effect.*

Noncompetitive firm fixed-price contracts shall be used only where there exists a reliable basis for judging reasonableness of contractor cost estimates; where such a basis does not exist, other contract forms shall be used.

A program shall be conducted for review and audit sufficient to ascertain that the cost or pricing data submitted by contractors in connection with the negotiation of noncompetitive firm fixed-price contracts were current, accurate and complete as required by P.L. 87–653. Such audits shall be made, as fully as possible, prior to completing the negotiation of the contract.

When is is necessary to provide assurance that defective cost or pricing data were not submitted, audits should be conducted of actual costs incurred after contracts are consummated. To assure that such postaward audits may be conducted, action shall be taken to include, in all noncompetitive firm fixed-price contracts involving certified cost or pricing data, a contractual right to have access to the contractor's actual performance records.

The memorandum also lists circumstances which may indicate the need for postaward audits of performance costs.

With respect to access to contractors' records, we believe that the memorandum would accomplish by administrative action what would be accomplished by enactment of the bill, S. 1913, submitted by you on June 6, 1967, except that, the Deputy Secretary's memorandum is silent on the matter of the agency's right of access to subcontractors' performance records which was specifically provided for in your bill. We therefore spoke to Department of Defense officials responsible for drafting regulations to implement the memorandum about this apparent omission.

We were advised that consideration would be given, in drafting the implementing regulations, to requiring prime contractors to include clauses in subcontracts giving agency representatives the right to have access to subcontractors' records of performance. As soon as we have had an opportunity to review the Department of Defense regulations on this matter we will advise you.

Sincerely yours,

ELMER B. STAATS,
Comptroller General of the United States.

APPENDIX 4(a)

REPORT TO THE CONGRESS—NEED FOR IMPROVEMENTS IN CONTROLS OVER GOVERNMENT-OWNED PROPERTY IN CONTRACTORS' PLANTS (DEPARTMENT OF DEFENSE) BY THE COMPTROLLER GENERAL OF THE UNITED STATES

LETTER OF TRANSMITTAL

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., November 24, 1967.

B-140389.

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

The accompanying report summarizes our findings on the need for the Department of Defense to improve its controls over Government-owned property in contractors' plants.

On the basis of our review, we believe that there is a need to improve the system of property controls over Government-owned facilities, special tooling, and material in the possession of contractors. Generally, our review disclosed weaknesses with regard to effective use of industrial plant equipment, rental arrangements, and accounting for and control of special tooling and material. Further, we found that certain aspects of the work of Government property administrators and internal auditors were in need of improvement.

Our findings and recommendations, together with the related corrective measures taken or promised by the Department of Defense, are summarized on pages 3 through 8 in the highlights section of the report.

In our cooperative efforts, we informed Defense officials, both at local and departmental levels, of the weaknesses observed in our review at the earliest practicable time and we participated in a series of meetings with departmental officials, at which time we discussed the need for the various improvements to property control systems discussed in the report. Although we have discussed the details of our findings with the contractors and universities involved, we did not obtain their written comments regarding the contents of this report.

This report is being issued so that the Congress may be informed of the actions taken, or under consideration, and the additional steps which we feel the Department of Defense must take to improve the administration and control over Government-owned property in the possession of contractors.

Copies of this report are being sent to the Director, Bureau of the Budget; Director, Office of Emergency Planning; Secretary of Defense; Secretary of the Army; Secretary of the Navy; and Secretary of the Air Force.

ELMER B. STAATS,
Comptroller General of the United States.

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I. Letter dated August 7, 1967, from the Deputy Assistant Secretary of Defense (Procurement) to the General Accounting Office.
II. Principal officials of the Department of Defense, the military departments, and the Office of Emergency Planning responsible for the administration of activities discussed in this report.
III. Approximate cost of Government-owned property at contractors' plants included in our review as of reporting dates in fiscal year 1966.

REPORT ON NEED FOR IMPROVEMENTS IN CONTROLS OVER GOVERNMENT-OWNED PROPERTY IN CONTRACTORS' PLANTS, DEPARTMENT OF DEFENSE

INTRODUCTION

The General Accounting Office has made a review of the adequacy of controls over Government-owned property in the possession of contractors. The review was performed pursuant to recommendations made by the former Subcommittee on Federal Procurement and Regulation (now the Subcommittee on Economy in Government), Joint Economic Committee, in its May 1966 report on the "Economic Impact of Federal Procurement." The review was also made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), the Accounting and Auditing Act of 1950 (31 U.S.C. 67), and the authority of the Comptroller General to examine contractors' records, as set forth in contract clauses prescribed by the United States Code (10 U.S.C. 2313(b)).

In performing our review, we visited—

1. Various offices of the Department of Defense (DOD) at the Assistant Secretary of Defense level and at the military department headquarters and field levels;
2. The headquarters of the Defense Industrial Plant Equipment Center (DIPEC);
3. The headquarters and some field agencies of the Defense Contract Administration Services; and
4. The plants of 21 defense contractors and the campuses of two universities.

Government-owned property in the possession of 17 of the 21 defense contractors we visited and the two universities had an acquisition cost of about $944 million; comparable data were not obtained at four contractor locations. The contractor locations at which we made our reviews were selected impartially except that selections were limited to contractors which, according to available preliminary information, had Government property in their possession. We inluded contractors which had large, moderate, or small amounts of Government-owned property in their possession. The contractors selected are engaged in a variety of defense work; e.g., airframe, aircraft engine, electronics, and ordnance. Our selection included both large and small prime contractors and subcontractors.

The contractor locations selected for our review included 15 plants under the administrative cognizance of the Defense Contract Administration Services (DCAS), a component of the Defense Supply Agency (DSA). The other six plants were under the administrative cognizance of the military services. Government property we reviewed at the two universities was administered by the Office of Naval Research (ONR).

We examined DOD policies and implementing military service and DCAS regulations relating to the administration of Government-owned property. We did not examine into all aspects of property management; however, we selected for evaluation those policies which appeared, from our preliminary inquiries, to warrant particular attention. Further, we reviewed pertinent audit reports, agency management reports, workpapers generated by the property administrator, DIPEC records, and the contractors' written procedures and related records. We reviewed records of utilization of Government-owned property maintained by the contractor to assist us in examining into the adequacy of the bases used in arriving at rentals due the Government, and the extent to which such property was being utilized.

DOD has issued instructions to place the subject of contractors' liability for loss of, or damage to, Government-owned property in their possession before the Armed Services Procurement Regulation (ASPR) Committee for study. Therefore, this subject was not covered in our review, but it will be considered when the Department's study has been completed.

A draft report of our findings was submitted to the Secretary of Defense in May 1967 for comment. In our draft report we made a series of proposals to improve the administration and control over Government-owned property. By letter dated August 7, 1967, the Deputy Assistant Secretary of Defense (Procurement) commented on our proposals. (See app. I.)

Although we have discussed the details of our findings with the contractors and universities involved, we did not obtain their written comments regarding the contents of this report.

The principal officials of the Department of Defense, the military departments, and the Office of Emergency Planning responsible for the administration of the activities discussed in this report are listed in appendix II. Appendix III lists the approximate cost of the Government-owned property at the contractor locations visited.

HIGHLIGHTS

On the basis of our review, we believe that there is a need for the Department of Defense to improve its system of controls over Government-owned facilities, special tooling, and material in the possession of contractors.

Greater adherence by responsible agency officials to the prescribed Department of Defense regulations governing industrial plant equipment (IPE) in the possession of contractors as well as certain revisions to the current regulations are necessary to ensure the maximum benefits accrue to the Government from its sizable investment in these facilities.

The need for these improvements is pointed up by our findings that—

1. Some of the equipment is being used by contractors in their commercial operations without appropriate Government approval and without equitable compensation to the Government;
2. There is little or no use for extended periods of a substantial portion of the equipment, for some of which there is a current need in other plants;
3. Utilization data maintained by some contractors are not adequate to indicate the extent and manner of use;
4. DIPEC, the office responsible for the management of idle IPE, frequently permitted the purchase of equipment to fill requisitions although the requested equipment was idle and available at other locations;
5. Rental policies, in some cases, were inimical to the Government's interests, and
6. In some cases, the Government's interests might better be served by foregoing replacing outworn or outmoded equipment in favor of the contractors' acquiring the replacement at its own expense.

Special tooling, including special test equipment, in the possession of contractors represents a significant investment by the Government. Although the Government does not require contractors to report the value of such property in their possession, the estimated cost of this class of property at the contractors' plants we visited amounted to more than $347 million, or over one-third of the cost of Government property in the possession of those contractors.

We found weaknesses in the control of this property due to deficiencies in inventory practices, the absence of financial controls, and the absence of a requirement for surveillance by Government property administrators of special tooling in the possession of subcontractors. Also, in some instances, Government-owned tooling was not identified as Government property or in the property records.

Some tooling is usable for many years. Also, the adaptability of much of this tooling to commercial purposes indicates the need for financial control over such property. Further, it seems necessary for tooling and test equipment to be properly classified, identified, and accounted for to prevent unauthorized use and

unrecognized loss and to provide information to facilitate intelligent decision making in regard to acquisition, dispositions, rentals, and transfers.

We found that accounting systems employed by contractors did not provide for financial control, and in most instances acceptable physical inventories of Government-owned material were not being taken properly. We attribute these weaknesses to indefinite instructions existing in the ASPR, deficient physical inventory taking, and departure from good property management practices.

Financial control accounts are not required by the ASPR to be maintained by nonprofit institutions for IPE and special test equipment, nor were they being maintained by the two universities we visited. We found that periodic inventories were not required by the ASPR nor were they taken by the universities, even though research contracts frequently are in process for several years. Physical inventories are generally taken only upon completion of a contract. In those instances where physical inventories were taken at contract completion, we found that the procedures employed did not provide necessary internal control.

The ASPR provides for the contractor's property accounting system to be submitted to the property administrator for approval. The Regulation also requires that the property administrator periodically test the contractor's system to ensure that adequate control exists over Government-owned property.

We found that the value of the approval process of the contractor's property accounting system by Government property administrators as a means to ensure adequate control over Government-owned property was questionable because contractor systems were allowed to continue in an approved status even though the property administrator had found significant weaknesses.

We also found that relatively few internal audits have been made of the effectiveness of property administration at contractors' plants. Audits that were made regarding the adequacy of rental payments were not sufficiently comprehensive to be fully effective. Generally, the reviews were limited to (1) verifying the accuracy of data in the computations submitted by the contractor and (2) determining whether the procedure for computing the rent was in accordance with the terms of the lease. An evaluation as to whether the prevailing terms of the lease were equitable to the Government was not apparent.

In our draft report to the Secretary of Defense, we made a number of proposals to improve the administration over Government-owned property. In general, we have found agency management receptive to our suggestions. Actions have been taken or planned in response to most of our proposals which, if properly implemented, should result in significant improvements in the control and utilization of such property.

The Department of Defense, however, did not fully agree with, or did not indicate any specific corrective action on, our proposals to (1) require contractors to furnish machine-by-machine utilization data and to obtain prior Office of Emergency Planning approval on an item-by-item basis for the commercial use of industrial plant equipment and (2) strengthen the controls over special tooling and special test equipment through the use of financial accounting controls. We believe that implementation of these proposals or of other acceptable alternatives is necessary to effectively administer this property. Therefore, we are recommending to the Secretary of Defense that he reconsider the Department's position on these matters.

We are also recommending to the Director, Office of Emergency Planning, that prior approvals for planned commercial use of IPE be administered on a machine-by-machine basis.

Following is a tabulation of our major findings and actions taken or under consideration by the Department of Defense to implement improvements needed. The tabulation also sets forth our recommendations for added controls or for strengthening the Department's existing or proposed controls over Government-owned property.

SUMMARY OF MAJOR FINDINGS AND ACTIONS TAKEN OR UNDER CONSIDERATION BY THE DEPARTMENT OF DEFENSE TO IMPLEMENT IMPROVEMENTS NEEDED AND GENERAL ACCOUNTING OFFICE RECOMMENDATIONS FOR ADDED CONTROLS OR FOR STRENGTHENING THE DEPARTMENT'S EXISTING OR PROPOSED CONTROLS OVER GOVERNMENT-OWNED PROPERTY

FACILITIES

Findings	Actions taken or under consideration by the Department of Defense	Recommendations by the General Accounting Office
1. Utilization: Many items of Government owned industrial plant equipment were being retained which, in our opinion, should have been reported as excess because they were not used, were being used very little, or were being used extensively for commercial work. In the case of high commercial use, we found that generally the required prior approvals for such use had not been obtained from the Office of Emergency Planning. We believe that such use was not always in the best interest of the Government since the circumstances sometimes indicated that the most efficient IPE was not being used to process Government work. For example, about 1 year after an 8,000-ton forge press costing $1,400,000 was installed, it was used extensively for commercial production of jet engine midspan blades. In the 3-year period ended Dec. 31, 1965, the 8,000-ton press was used 78 percent of actual production time for commercial work while the majority of Government procurement of midspan blades was processed on older 4,000-ton presses.	ASPR is being revised to prescribe that the contractor be required contractually to establish and maintain a written system for controlling IPE, and property system surveys will be conducted to insure the system's effectiveness and to show the extent and manner of its use. Also a feasibility study will be made regarding maintenance of utilization records on a machine-by-machine basis; for example, IPE of selected high value.	We are recommending to the Secretary of Defense that use data of IPE be compiled on a machine-by-machine basis to the extent feasible and that this basis be emphasized in the study which DOD will perform regarding the feasibility of maintaining utilization records. We are recommending to the Director, Office of Emergency Planning, that prior approvals for planned commercial use of IPE be similarly administered.
2. Redustribution: On the basis of the results of a statistical sample, we estimate that, during a 6-month period, IPE with a value of approximately $12,000,000 could have been offered by DIPEC to fill requisitions for IPE which it stated was unavailable from its inventory.	DIPEC has established a training program for all commodity managers with particular emphasis placed on the requirement to document specific conditions under which items in inventory are rejected as being unsuitable for the intended use.	None.
3. Rent: We found that the various bases upon which the rent payments were negotiated resulted in a lack of uniformity in the rates actually charged; inequities between contractors; and, in some cases, a reduction in the rent payments to the Government. We found that the determination of rent on a machine-by-machine basis and similarly applying the rent credit for Government rent-free use to each machine above an established value in its ratio of Government versus commercial machine-hours of use would be more accurate and more equitable. At 1 contractor's plant the rent payment would have increased from $226,400 to $809,000 for the year ended Sept. 30, 1966, under such a procedure.	Several alternative proposals for administering rent are under consideration by the ASPR Committee; none of the proposals contemplate a determination of actual equipment used on a machine-by-machine basis.	We are recommending to the Secretary of Defense that the ASPR Committee closely examine the feasibility of computing rent on a machine-by-machine basis and similarly applying the rent credit for Government rent-free use to each machine above an established dollar value in its ratio of Government versus commercial hours of use.
4. Rental, heavy presses: The current policy of charging rent for both Government and commercial work, at a rate of 4 percent of sales, may not be in the best interest of the Government since the overall use of the presses has significantly increased and significant amounts of commercial sales are now being processed through the presses. We found that the rental arrangements were yielding only 1 to 2 percent annual return on the Government's investment in the heavy presses.	DOD, in conjunction with the Air Force, is reexamining existing arrangements pertaining to rental charges for the heavy presses. Also, DOD is considering such aspects as waiving the rental charges for Government work, increasing rental returns on commercial work, and the feasibility of selling some of the presses to Defense contractors.	None.

SUMMARY OF MAJOR FINDINGS AND ACTIONS TAKEN OR UNDER CONSIDERATION BY THE DEPARTMENT OF DEFENSE TO IMPLEMENT IMPROVEMENTS NEEDED AND GENERAL ACCOUNTING OFFICE RECOMMENDATIONS FOR ADDED CONTROLS OR FOR STRENGTHENING THE DEPARTMENT'S EXISTING OR PROPOSED CONTROLS OVER GOVERNMENT-OWNED PROPERTY—Continued

FACILITIES—Continued

Findings	Actions taken or under consideration by the Department of Defense	Recommendations by the General Accounting Office
5. Modernization: The DOD program for replacement of Government-owned machine tools as presently administered will, in our opinion, tend to perpetuate the large Government investment in general purpose machine tools in possession of contractors and thus defer indefinitely the time when contractors would furnish all facilities in accordance with DOD basic policy. We found instances where contractors had not been encouraged, as prescribed by DOD policy, to privately finance the purchases of new machines and other instances where the approvals to provide new Government-furnished machines had been based on inaccurate information. For example, an approved modernization program for 1 contractor included 4 gearmaking machines estimated to cost $232,100 based upon repaying the investment through reduced operating costs within 3 to 4 years. To do this the initial year's use would have had to increase 8 times over present levels. As of September 1966 the contractor had no active requisitions for additional gear machine operators; moreover, 1 of the replaced machines had been used exclusively for commercial production. In addition, DOD procedures did not include a contractual provision for recovery by the Government of all savings resulting from use of the modern and more efficient Government-furnished machines.	Guidelines to improve the administration of the modernization program will be revised, where applicable, and improvements will be made where existing guidelines are deemed adequate consistent with the improvements needed and cited.	None.
Other: At some contractor locations we noted that the cost of installation and/or transportation associated with the acquisition of IPE was not identified and recorded as prescribed by the accounting principles and standards of the Comptroller General. Also, we found that the Navy was unnecessarily maintaining records of its IPE which were a duplication of those maintained by contractors and DIPEC.	1. A study of the most feasible way of obtaining and recording IPE transportation and installation cost data will be made to insure compliance with this requirement. 2. Duplicate recordkeeping is being discontinued and ASPR is being revised to prevent such duplications in all other Defense agencies.	Do. Do.

OTHER CATEGORIES

1. Special tooling and special test equipment: We found weaknesses in the control of this property due to deficiencies in inventory practices, classification, the absence of financial controls, and the absence of a requirement for surveillance by Government property administrators of special tooling in the possession of subcontractors. Also, in some instances, Government-owned tooling, as prescribed by the Armed Services Procurement Regulation, was not identifiable by physical markings or in the property records. At one plant, Government-owned tooling acquired under supply contracts at an estimated cost of $55,000,000, starting in 1952, was not controlled under a system of monetary control accounts, had never been inventoried, and lacked proper identification in the stock records.	DOD agrees that proper internal control includes segregation of duties of responsible contractor personnel taking physical inventories of Government property and DOD will review ASPR to determine if a procedural revision is necessary. However, DOD felt that the present manner of administering and controlling special tooling, as prescribed in the ASPR, was adequate and it planned no study project with regard to determining the point in the contracting process at which financial control of special tooling should be maintained.	We are recommending to the Secretary of Defense that the Department of Defense establish a study project to determine the procedures to be used and the point in the contracting process at which financial control of special tooling should be maintained. (See p. 55.) We are recommending also that periodic examination and identification be made of special tooling to identify multiuse characteristics and that the items identified be reclassified and controlled as facility type items.

SUMMARY OF MAJOR FINDINGS AND ACTIONS TAKEN OR UNDER CONSIDERATION BY THE DEPARTMENT OF DEFENSE TO IMPLEMENT IMPROVEMENTS NEEDED AND GENERAL ACCOUNTING OFFICE RECOMMENDATIONS FOR ADDED CONTROLS OR FOR STRENGTHENING THE DEPARTMENT'S EXISTING OR PROPOSED CONTROLS OVER GOVERNMENT-OWNED PROPERTY—Continued

OTHER CATEGORIES—Continued

Findings	Actions taken or under consideration by the Department of Defense	Recommendations by the General Accounting Office
Material: We found that accounting systems employed by contractors did not provide for financial control and, in most instances, acceptable physical inventories of Government-owned material were not being properly taken. We attribute the weaknesses to indefinite instructions existing in the ASPR, deficient physical inventory taking, and departure from good property management practices.	Financial controls for material have been the subject of study for many years, and these studies are being continued. DOD agrees that proper internal control includes segregation of duties of responsible contractor personnel taking physical inventories of Government property, and DOD will review ASPR to determine if a procedural revision is necessary.	We are recommending to the Secretary of Defense that ASPR B-304.7 be amended to require financial accounting controls for Government-owned material in the possession of contractors. (See p. 58.)
3. Nonprofit institutions: Our review of property at 2 universities revealed that financial controls were not maintained by the universities and that at 1 university this resulted in the loss of monetary and quantitative control over at least $52,000 in Government IPE. We also found that periodic inventories were not required by the ASPR, nor were they taken by the universities even though research contracts frequently are in process for several years. When inventories were taken, the procedures employed did not provide necessary internal control. Further, we found that ASPR requirements were not being adhered to with regard to control of property by DIPEC. As a result (1) IPE, at a cost of about $260,400, was purchased in fiscal year 1966 without 1st screening DIPEC inventories to determine whether acceptable IPE was on hand and available, (2) DIPEC's central inventory files were incomplete because $1,100,000 worth of IPE on hand at the universities was not reported to DIPEC, and (3) during fiscal year 1965 and 1966, IPE in critical or short supply having a cost of $104,700 was donated to the universities without screening DIPEC to determine whether the equipment was needed elsewhere in the Government.	1. DOD feels that financial control accounts for IPE at colleges and universities are currently required by the ASPR and it will take necessary steps to insure compliance. 2. A revision to DSA regulations and ASPR will be processed to require IPE costing over $1,000, at colleges and universities, to be reported to DIPEC for management and control purposes, and IPE of this type will be screened for utilization prior to its donation under provisions of the United States Code (42 U.S.C. 1892). 3. DOD agrees that proper internal control includes segregation of duties of responsible contractor personnel taking physical inventories of Government property, and DOD will review ASPR to determine if a procedural revision is necessary.	We are recommending to the Secretary of Defense that the ASPR be revised to clearly establish the need for monetary control accounts for IPE. We are further recommending that standard IPE, now classified as special test equipment, be reclassified and controlled as facility type items. Also, we are recommending that special test equipment be accounted for under monetary control accounts. (See p. 63.)
4. Property management function in the DOD: We found that the value of the approval process of the contractor's property accounting system by Government property administrators as a means to insure adequate control over Government-owned property was questionable because (1) there was little incentive for the contractor to maintain an approved system and (2) contractor systems were allowed to continue in an approved status even though the property administrator had found significant weaknesses in the contractor's control over property which were not subsequently corrected, or when other weaknesses were, in our opinion, apparent and should have been corrected. We also found that for the past 1½ years relatively few internal audits had been made of the effectiveness of property administration at contractors' plants. Further, we found that audits that were made regarding the adequacy of rental payments were, in our opinion, not sufficiently comprehensive to be fully effective.	1. A specific ASPR requirement is being considered which will require annual reviews of contractor and nonprofit institution accounting systems. 2. A joint study project had been established with the Civil Service Commission to evaluate the current position classification standards for property administrators. 3. DOD indicated that scheduled or planned internal audits by agencies and military departments should deliver necessary audit coverage of property administration.	None. Do. Do.

BACKGROUND

This review was undertaken at the direction of the former Subcommittee on Federal Procurement and Regulation (now the Subcommittee on Economy in Government), Joint Economic Committee, in its May 1966 report on "Economic Impact of Federal Procurement." Among the recommendations the Subcommittee included in its report were (1) that the General Accounting Office cooperate with DOD in the development of an adequate contractor inventory accounting system and approve the system when found to be adequate and (2) that a thorough review also be made of any misuse or unauthorized use of Government property in the hands of contractors and proper settlement be made as soon as possible.

The Government's inventory of property in the hands of contractors consists of property which the Government has furnished and property procured or otherwise provided by contractors for the account of the Government. Basic policies governing the control of this property are set forth in the ASPR. As prescribed in this Regulation, there are five classes of Government property.

Facilities.—This term refers to industrial property for production, maintenance, research, development, or test, including real property and rights therein, buildings, structures, improvements, and plant equipment. Plant equipment includes personal property, such as furniture, machinery, equipment, machine tools, and accessory and auxiliary items, which is used or capable of being used in the manufacture of supplies or in the performance of services. DOD records show that as of June 30, 1966, the cost of facilities in the hands of contractors was $6.2 billion.

Special tooling.—This is defined as being all jigs, dies, fixtures, molds, patterns, taps, gages, other equipment and manufacturing aids, and replacements thereof, which are of such a specialized nature that, without substantial modification or alteration, their use is limited to the development or production of particular supplies or parts thereof or the performance of particular services.[1]

Special test equipment.—This means electrical, electronic, hydraulic, pneumatic, mechanical, or other items or assemblies of equipment, which are of such a specialized nature that, without modification or alteration, the use of the items (if they are to be used separately) or assemblies is limited to testing in the development of production of particular supplies or parts thereof or in the performance of particular services.[1]

Material.—This class includes all property which may be incorporated into or attached to an end-item to be delivered under a contract or which may be consumed or expended in the performance of a contract. DOD records show that as of June 30, 1966, the cost of material in the hands of contractors was at least $4.7 billion.

Military property.—This class consists of military personal property, such as an airplane, which is provided to the contractor to assist in performing a contract but which is not consumed or incorporated in the end-items produced.[1]

In our report we make extensive reference to a type of facility referred to as IPE. The term is not specifically defined by the ASPR. However, DIPEC, a component of DSA, defines IPE as severable, general-purpose equipment used to develop, produce, maintain, and test defense material. The four major groupings of this equipment are test, metalworking, electronical and electronics, and general equipment.

The responsibility for the administration of Government-owned property in the possession of DOD contractors was vested in the property administrators of the military services until the establishment of DCAS in September 1964. Since that time, DCAS has expanded to include 11 regions and over 23,000 personnel, approximately 450 of which are property administrators. DCAS has cognizance over the administration of Government-owned property at about 5,000 contractors' plants. The individual military services have retained cognizance at 508 plants, 48 of which were major weapon systems plants.

In 1966 the Office of the Secretary of Defense (OSD), Installations and Logistics (I&L), designated ONR as the cognizant activity for field contract administration of DOD contracts with educational institutions numbering 293 as of October 1966.

DIPEC is responsible for management of idle IPE which has a unit acquisition cost of $1,000 or more. DIPEC controls the allocation and reutilization of such

[1] DOD does not collect financial data regarding the value of this class of property.

equipment and also maintains records of much of the IPE in active use and in mobilization packages controlled by the military departments and DSA. As of June 30, 1966, DIPEC's records showed that DOD components had reported approximately $3.6 billion worth of IPE. We were told that the average age of DIPEC-controlled IPE is slightly over 13 years.

Some of the current policies governing the administration of Government-owned property are contained in the following instructions:

1. DOD Directive 4275.5 dated March 13, 1964, and the superseding directive dated November 14, 1966, establishes policy on acquisition and management of industrial facilities.

2. ASPR sets forth specific policies with respect to providing property for use by contractors, clauses for inclusion in contracts, and the bases for determining rental charges for the use of Government-owned property. Appendixes B and C of ASPR set forth the basic requirements to be observed by military departments for establishing and maintaining control over Government property in the possession of contractors and nonprofit research and development contractors.

3. Title 2. General Accounting Office Policy and Procedures manual for Guidance of Federal Agencies, contains the accounting principles and standards prescribed by the Comptroller General of the United States to be observed by each executive agency.

It is the policy of DOD to have its contractors maintain the official records of Government-owned property in their possession. The Department holds the contractor accountable for this property until an agent of the Government relieves the contractor of further responsibility for the property. The Department requires that a property administrator be designated for each contract involving Government property. The designated property administrator, who is responsible to the contract administrator, is a key Government employee with respect to the control over Government-owned property. His more significant duties include the responsibility for—

1. Reviewing and approving the contractor's property accounting system;
2. Examining documents to the extent necessary to establish the correctness and completeness of the contractor's property records;
3. Determining whether the contractor is reasonably using the property; and
4. Furnishing management data required by the military services.

In addition to the property administrator, other Government specialists are charged with certain responsibilities regarding administration of property. For example, at some contractors' plants an industrial specialist is required to examine contractor proposals for additional Government facilities and to determine the contractor's need for retaining Government-owned property. The methods to be followed in achieving the policy objectives are discussed in the instructions issued by each of the military services.

The Office of Emergencey Planning (OEP) provides planning guidance, coordination, and review on behalf of the President. In November 1963, OEP issued Defense Mobilization Order 8555.1 establishing policy guidance on Government-owned production equipment. This Order consolidated and revised then existing policies on Government-owned production equipment, including machine tools.

FINDINGS AND RECOMMENDATIONS

Facilities

Utilization of industrial plant equipment

Substantial improvements needed in utilization of IPE

Our review of IPE in the possession of contractors showed that many items were being retained which, in our opinion, should have been reported as excess and available for utilization elsewhere within the DOD. We concluded that this condition was attributable primarily to inadequacies in Government procedures for administration of property. Definitive guidelines had not been provided for determining at what usage level IPE should be declared excess; for requiring that such determinations be made periodically; nor for requiring contractors to prepare and furnish utilization data for Government property officials to use a tool of property management for controlling the use of IPE.

Our review also indicated that items of IPE which had been reported as idle and available for reutilization were not, in all cases, offered to fill requisitions received for metalworking and general plant equipment.

Further, we found that generally prior approval had not been obtained, although prescribed, for the use of IPE for non-Government purposes. It is our opinion that Government property was improperly being used in a significant number of such cases.

At the contractor locations visited, we questioned retention by the contractor of 328 items of IPE costing an estimated $15.9 million because (1) it had not been used over an extended period of time, (2) it had been used solely or predominantly for commercial work, or (3) the usage was low—below the level indicated as acceptable by the DOD. For the most part, our determinations were based on utilization data supplied by those contrators maintaining utilization records for the purpose of calculating rent payments due the Government for use of the equipment on commercial and certain Government work. We were unable to determine the manner of use of many items of equipment at a number of the contractor plants we visited because such utilization records were not maintained.

We were also restricted in our determination of need for 32 items of IPE that we had questioned at one contractor location because the need was based on estimates of expected use rather than on actual use. The balance of the items questioned, 296 items, were estimated to have cost $9.4 million.

We compared these items to incoming requisitions for IPE which DIPEC had been unable to fill during the same period of time for which we were questioning their retention by the contractors. Engineering and technical personnel at DIPEC advised us that, of the 296 items, they considered 47 to be "interchangeable" and "substitutable" with items requisitioned and that, in their judgment, the items would have been satisfactory to fill the requisitions for items which had been designated as unavailable to the requesting DOD component. Moreover, DIPEC records revealed that 81 of the 296 items of IPE were classed as being in either critical or short supply.

Our bases for questioning the 328 items are discussed in the following sections. On the basis of our reviews of such records as were available, we believe that many other items would have reflected similar patterns of poor usage if records had been maintained to permit their identification.

IPE not in use.—DOD Directive 4275 dated March 13, 1964, and the superseding directive dated November 14, 1966, state that Government-owned facilities will be declared excess as soon as they become excess to the missions for which they were required.

We questioned retention of 133 items of IPE, estimated to cost $3.3 million, which had not been in use for extended periods of time. On the basis of our review of utilization surveys conducted by Government property officials, we concluded that in many cases undue reliance had been placed on the prospect of future production creating valid needs or desirable utilization levels for the IPE reviewed as illustrated below.

At one contractor plant we identified 74 items of equipment (estimated to have cost $1.1 million) such as screw machines, presses, lathes, and drilling machines which had not been used the first 9 months of 1966. The contractor stated that 21 of the items we identified were excess but contended that 34 items warranted retention for unknown future work. He stated that new contracts would require the use of 19 items.

The contractor did not provide the production schedules we had requested to evaluate their effect on the workload. We were advised that, as a result of recently completed surveys by Government procurement agencies, more equipment was being received. The decision to add more equipment was made without contacting the DCAS industrial specialist or requesting his assistance in the survey.

In one case a utilization survey conducted in early 1966, through floor checks, disclosed 89 items of idle IPE; however, with one exception, the contractor's justification for retention of the IPE was based on future production programs and was accepted by the Government. We could find no evidence to indicate that an investigation of the contractor's justifications had been performed. Our review of the contractor's formal justifications disclosed previous and planned use for 60 of the machines, but we found that nine of the machines were scheduled solely for commercial production only and that no production was scheduled for four others.

At another location a Government property official selectively analyzed usage-data for 3 months ended March 1966, noting many instances where IPE had little or no low use, but concluded, apparently without effective evaluation with the contractor, that incoming workload would disclose more desirable utilization in the future and that no items were excess.

IPE used for commercial work.—From the available utilization records, we determined that 115 items of IPE, estimated to have cost $11.4 million and located principally at four contractor locations, were being used solely or predominantly for commercial work. In this characterization we included IPE used for commercial work 75 percent or more of actual production time during periods ranging from 6 months to 1 year at three locations. At the other location this determination was based on the contractor's predicted use for the last 4 months of 1966.

At three locations Government property officials had not questioned retention of this IPE. Facilities contracts at these locations permitted use of the IPE for commercial work; and, in the cases where this was observed, it was apparently considered that the IPE was used for authorized purposes.

At the remaining contractor plant the Government was negotiating a long-term lease specifically to permit commercial use of the IPE. The contractor maintained projected usage data rather than utilization data for selected items of IPE. The records showing projected use indicated that 32 items of IPE estimated to have cost $6.5 million would be used predominantly for commercial work the last 4 months of 1966. According to contractor estimates, commercial use of the plant was expected to be more extensive in 1967 than in 1966. DIPEC records indicated that, by the beginning of 1967, seven of these items, estimated to cost $1.3 million, would be in a critical supply classification. This would mean that, at the present demand rate, DIPEC would not be able to fill all of the requisitions received for this IPE in 1967.

Low utilization of IPE.—On May 17, 1965, the Assistant Secretary of Defense (I&L), issued a memorandum to DSA and the military services which established criteria to be used in determining the reasonableness of the contractor's actual use of IPE. It provided that, when a contractor had two or more DOD-owned machines which are capable of the same function and which are in use 35 percent of the time (14 hours a week) or less, justification would be required for continued retention. In June 1966 the Assistant Secretary of Defense (I&L) emphasized the need for conscientious application of this criteria and stated that, pending the dissemination of more definitive criteria, the evaluation of economic utilization should include the examination and justification for retention in all instances where machines of a like function were below the usage criteria specified. DSA Manual 8300.1 provided that in performing utilization surveys, maximum use would be made of contractors' machine-loading data, production planning, and machine-time records. At the locations we visited we found no evidence to indicate that Government property representatives had implemented the criteria set forth by the Assistant Secretary of Defense.

We found that in many cases contractors did not maintain utilization data which would permit application of usage criteria. Accordingly, we could identify only four items of IPE estimated to cost $35,800 at two locations where low use was indicated by other review techniques. In three instances, however, reasonably complete utilization data were maintained. These data enabled us to question the basis for retention of 76 items of IPE, estimated to cost $1.2 million, which did not satisfy the criteria specified by the Assistant Secretary of Defense as we interpreted it. None of this equipment had been reported as excess by the contractor.

Generally, we found that, where utilization data was compiled for purposes of computing rent, Government property officials had not similarly used the data to analyze utilization of the IPE. Utilization surveys were generally limited to periodic attempts to detect idle IPE through floor checks. We noted that one contractor had developed minimum usage criteria calling for a review of idle IPE every 3 months; however, this contractor had not made the reviews.

Increased versatility in use of test equipment requires improved property management

On the basis of our review, we believe that the procedures for acquisition, administration, and redistribution of general purpose test equipment, a particular class of IPE, at contractor plants were in need of improvement. This class of IPE included primarily electronic components such as amplifiers, oscilloscopes, recorders, and signal generators.

DOD Directive 4275.5 dated March 13, 1964, and the superseding version dated November 14, 1966, placed new emphasis on property management relating to general purpose and special test equipment. The directive acknowledged that the advance of weapons technology had vastly increased the complexity, cost, and wider use of all types of test equipment. Accordingly, it provided that, to avoid duplicate investment, DOD components would thoroughly screen idle test equipment in the DIPEC inventory before procuring new items of test equip-

ment. It provided further that, when general or multipurpose components of special test equipment are no longer required, they would be reported to DIPEC in the same manner prescribed for facilities.

Our review included two contractors who had large quantities of electronic test equipment.

One of the two contractors had not requested the contracting officer to have DIPEC fill requisitions for test equipment prior to having the purchase of new equipment authorized because, in his opinion, the test equipment in DIPEC's inventory was too old, lacked warranty, and would result in lost time if found to be unacceptable. Although the Government property administrator had notified the contractor of the screening requirement in April 1966, we noted that the contractor requested that DIPEC inventories be screened only on the occasions when the acquisition was applicable to a cost-reimbursement contract.

This contractor had over 2,400 items of test equipment on hand which, according to the responsible contractor official, were not presently needed but were being held for possible future use. No system of use data had been maintained for this IPE and the Government property administrator had not required the contractor to report any of the items to DIPEC as excess. The contractor stated that the equipment had been acquired for production of a weapons system about 8 years ago and that he doubted its usefulness to anyone else at this time.

It seems evident that screening actions could not be initiated by DIPEC because the property was not reported.

At the second contractor we observed that contractor personnel were maintaining usage reports applicable to test equipment furnished under one of five facilities contracts. The usage reports were posted on a daily basis and disclosed whether the IPE was in use and, if so, the applicable sales order or contract. The data was summarized monthly, and department heads were required to justify retention of those items indicating usage below 25 percent.

We observed that the procedure resulted in periodic declarations of test equipment as excess. After our tests revealed excess items of test equipment controlled under other facilities contracts at this plant, the contractor expanded the tabulation of this data to the remaining four facilities contracts.

Property accounting systems not adequate for effective management

For the most part our findings were derived from machine utilization records prepared by contractors to compute periodic rent payments. The records sometimes were confined to a group of machines where they were necessary to make the rent computation; were of limited value because hours of machine usage were not shown; did not show commercial and Government use separately; or were not maintained at all because rent was determined on some other basis. Therefore, we lacked data, for a number of the contractors we visited, on which to base our review and our questioning of retention of the IPE.

The conditions outlined in this report were due primarily, in our opinion, to the absence of a requirement that the contractors' property accounting systems furnish meaningful utilization data as a tool for property management. Also lacking were clear and specific criteria for acceptable usage levels and provisions for its periodic measurement against utilization data furnished by the contractor.

Proposed changes to ASPR now in process (ASPR Case 66-314) place the primary responsibility with the property administrator to insure that the contractor has an effective IPE utilization system. Facilities contracts under guidelines proposed (ASPR Case 66-314) will recognize a need for maintenance of IPE utilization records in accordance with sound industrial practices and will afford the Government adequate opportunity to inspect all such records. The contracts would require that the contractor establish minimum standards of utilization and that he review the need for IPE items when utilization falls below the established standard.

Industry representatives have expressed the view that application of a rigid standard may be impractical since many factors have a bearing upon the logical point below which IPE cannot be considered economically used. However, they are in agreement that appropriate standards should be established for required degrees of utilization as suited to the item or family of items.

Prior approval not obtained although prescribed for use of IPE for non-Government purposes

The Office of Emergency Planning (OEP), in June 1957, established a requirement for contractors to request advance approval to use Government-owned machine tools on commercial work exceeding 25 percent of the total usage. OEP established the procedure for prior approval primarily to preclude contractors

from obtaining a favored competitive position through leasing Government-owned production equipment. To administer this procedure, ASPR 13-405 provides:

"Prior approval of the Office of Emergency Planning shall be obtained through the Assistant Secretary of Defense (Installations and Logistics) before more than 25% non-Government use of Government-owned machinery and tools * * * may be authorized. * * *"

We found, in inquiring at OEP, Washington, D.C., in December 1966, that since January 1, 1965, only five requests had been submitted, one of which had been disapproved. Generally, contracting officers were not requiring contractors to request and contractors were not requesting advance approval to use Government-owned IPE for commercial work in excess of the 25-percent restriction, as illustrated below. We observed that it was uncertain whether the 25-percent criteria referred to total planned use or to a fraction of the hours potentially available under one shift or two shifts, or to a certain number of days a week, etc., or if it was to be administered on a total plant or an item-by-item basis.

In four cases facilities contracts were silent or unclear as to the requirement to obtain OEP prior approval, and Government officials had not sought OEP approval even though items of IPE were being used in excess of 25 percent of actual production time for commercial work. For example, a facilities contract negotiated by the Navy required the contractor to use IPE for at least 75 per cent of the yearly total of authorized hours for Government production and it was silent as to conditions that might require OEP approval for other uses.

In another instance OEP denied a contractor the use of Army facilities for commercial work, but at the same time the contractor was using Air Force facilities extensively for commercial work without being required to submit a request. In 1965 this contractor used an average of 1,000 items of IPE a month, costing $17.2 million, for commercial work on a share basis with the Air Force. This increased to $26.5 million in 1966 and the IPE was used in the various company operating groups on an average of from 41 to 97 percent of the actual production time for commercial work. Although the Government officials administering the property were aware that submission of requests for use were appropriate, they had not required the contractor to do this because of (1) the many items of IPE subject to commercial use and (2) their assumption that the request would have to be submitted monthly since the facilities contract requires local approvals monthly for rental purposes.

At two contractor locations Air Force facilities contracts had incorporated provisions which required the contractor to notify the contracting officer when non-Government use was expected to exceed 25 percent of the total equipment use.

In one case 105 items of IPE valued at $6.1 million had been used an average of 58.5 percent of the production time for commercial work during the 6 months ended July 31, 1966, without advance approval. The contracting officer stated that the contractual requirements to obtain OEP prior approval had been added in December 1965 and that he had not checked the contractor's compliance. At the other location the contractor used 67 items of IPE, valued at more than $2 million, over 25 percent of production time for commercial work. The contractor advised us that he was unaware of the contract requirements.

Some DOD and OEP officials stated in the course of our review that approvals to use IPE should be administered on an item-by-item basis. A DOD official further stated that, by reasonable application of the rule, some exception was in order where a line of machines performed a task jointly.

Improper use of Government-owned IPE

On the basis of information available for our review, it was our opinion, that, in a significant number of cases, Government-furnished IPE was not properly used from the Government's viewpoint. In these cases advance approval for such use had not been obtained from OEP, so that the designated Government authority had not reviewed and either approved or disapproved the manner in which it was being used.

For example, an 8,000-ton mechanical forge press costing $1.4 million was installed at a contractor's plant in late 1961 on the basis that the less efficient 4,000-ton presses, also Government-owned, could not handle all of the Government orders for jet engine midspan blades. During the 3 years ended December 31, 1965, the 8,000-ton press was used 78 percent of actual production time for commercial work without advance OEP approval while the majority of Government procurement of midspan blades was processed on the 4,000-ton presses.

Also this contractor had used 10 machines, costing from $29,000 to $141,000 each, 100 percent of the time for commercial work during the first 6 months of 1966 without obtaining advance OEP approval.

In another instance the Navy furnished a contractor an automatic turret lathe costing $45,600 on the basis of the contractor's projected initial year saving of $25,800 in operating costs. We noted that during the first year the new lathe, without advance OEP approval, was used 513 hours, or 24 percent of the actual production time, on Government rent-free work and chiefly for commercial work the rest of the time. Thus the Government did not receive the benefit of most of the saving in operating costs. At the same time, Government rent-free work totaling 5,756 hours was processed on five older, less efficient turret lathes.

In another case, during the 9-year period ended September 1966, an ammunition facility was used about 80 percent of the time for commercial work which represented over $24 million in sales. The facilities contract, dated in November 1950, allowed use for commercial products provided this did not interfere with production of military items. In September 1965 the Navy activated this facility for rocket warhead production calling for delivery of 15,000 to 52,000 warheads a month through June 1966. Although the facilities contract specified that a production capability of 95,000 warheads a month be maintained, the condition of the IPE was such that the contractor could not meet delivery schedules.

We noted that the commercial work remained at about its previous level; however, the contractor advised us that this did not interfere with military production because some of the machines being used could not hold the tolerances required for rocket warhead production. We were unable to determine the effect of the commercial production on the present condition of the IPE. It should be noted however, that Navy officials were unaware of the extent of commercial production at this facility.

From the records made available to us, we could not tell whether a determination as to the condition of the IPE and the effect of commercial production, had ever been made. While Navy officials conceded that previous commercial use may have contributed to the equipment's inability to meet required tolerances, they pointed out that such commercial use was allowed under the contract. The contract had not been amended to insert the OEP approval requirement which became effective June 1957.

Conclusions

The need for good property management is evident in view of the Government's large investment in IPE and the widespread demands for these resources. In our opinion, the circumstances described in the preceding pages are indicative that the Government has not always followed a policy which results in the most desirable use of its IPE.

We believe that the present methods of controlling the use and disposition of Government-owned IPE are not adequate, primarily because of a requirement for contractor property accounting systems to include meaningful utilization data as a tool for property management. We believe also that proposed ASPR changes (ASPR Case 66–314) which require the contractor to maintain IPE utilization records in accordance with sound industrial practices and to establish utilization standards are not specific enough to protect the Government's interests.

Additionally, we believe that the Government should prescribe the standards and the information needed to properly manage its equipment, including information not only as to the extent but also as to the manner of use (i.e., commercial work, Government work for which rental is paid, Government rent-free work, etc.). Moreover, the proposed ASPR revisions, in our opinion, do not adequately delineate utilization procedures and practices to be followed or required by the Government property administrator and the contractors, with respect to the special category of IPE designated as test equipment, nor do they suggest the type of standards by which retention by the contractor should be evaluated.

We proposed therefore that the provisions of the proposed ASPR changes be revised to meet the predominate need of providing records and a means to determine whether the extent and manner of use of Government IPE is satisfactory. We recognize that this procedure may be practicable only for IPE above some established cost level, such as the $1,000 prescribed for DIPEC reporting procedures and should also exclude IPE when the Assistant Secretary of Defense has restricted and reserved use of IPE to specific military programs. Moreover, in our opinion, attention should be directed to the question of whether or not lease of IPE for commercial work is desirable. We identified a number of instances where need for equipment so used existed at other DOD contractor plants.

While OEP approval is directed primarily at precluding contractors from obtaining a competitive advantage, current practices appear to be inconsistent also with the following instructions.

ASPR 13-301(e) "Facilities shall not be provided by the Government * * * solely for non-Government use."

Defense Mobilization Order 8555.1 "* * * Government-owned production equipment should not be leased to private industry until its unavailability from private sources has been established. * * *"

We believe that, when the planned commercial use of a machine exceeds 25 percent of its total planned use, prior approval should be obtained, not only to meet OEP's reporting requirements and purposes, but also to provide the responsible DOD management activity with a comprehensive view of the extent to which Government-furnished IPE, by types, are being applied to private commercial purposes.

Therefore, we believe that ASPR 13-405 should be clarified to show that prior approval is to be made on a machine-by-machine basis and that the term "25 percent non-Government use" be more precisely defined. In addition, we believe that ASPR should be clarified to differentiate OEP approvals from local monthly approvals for rental purposes.

Agency comments and our evaluation

The Deputy Assistant Secretary of Defense (Procurement) by letter of August 7, 1967, advised us that the ASPR is being revised to prescribe that the contractor be required contractually to establish and maintain a written system for controlling utilization of IPE. The Deputy Assistant Secretary indicated that the revised regulation establishes the responsibility for each contract administration activity, and other DOD components, to conduct property system surveys to ensure the effectiveness of such a system and to show the extent and manner of use of Government-owned IPE. He indicated also that it provides for control, detection, and reporting of Government-owned IPE which are not being effectively and economically utilized by Defense contractors.

The Deputy Assistant Secretary stated that the Department will study the feasibility of maintaining utilization records on a machine-by-machine basis, as for example, IPE of selected high value and that, if the study proves the practicality of such an approach, the ASPR will be modified accordingly.

We believe that the tabulation of machine-by-machine utilization data may be excluded for IPE approved by the Assistant Secretary of Defense for specific programs, inasmuch as the utilization of this IPE is restricted to specific military hardware items and for IPE above some established cost-level, such as the $1,000 prescribed for DIPEC reporting procedures. Our report points out that we were unable to determine the manner of use of many general purpose type of equipment items at many contractor plants we visited because adequate utilization records were not maintained.

Our review established that, of the 17 contractors examined, only five contractors maintained adequately comprehensive machine-by-machine utilization data. Two of the five contractors accumulated the data by manual postings and the other three through mechanized procedures (tab card system). One of the contractors was converting from mechanized procedures to an electronic data collection system designed for manufacturing industries. Included among the applications of the electronic data collection system is "Machine and Tool Utilization," and we observed that three of the remaining 12 contractors reviewed were in the process of installing similar systems at the time of our review.

In regard to prior approval by OEP for commercial use of IPE of more than 25 percent, the Deputy Assistant Secretary stated that such approvals on a machine-by-machine basis would create a substantial administrative burden not commensurate with the goals sought. He further stated that to maintain a factual utilization record by individual machine for commingled Government and contractor-owned plant equipment on a contract-by-contract basis is impractical because it would be very time consuming, disrupt the contractor's production planning process, and result in the addition of a costly administrative burden for both Government and industry. DOD feels that a more practical approach is one of more aggressive surveillance, maximum use of all plant equipment, and additional emphasis on the collection of adequate rentals; and they stated that they were pursuing this.

The Deputy Asistant Secretary indicated that the Department intends to meet with OEP for the purpose of reaching an acceptable solution on these points: defining "25-percent non-Government use" and the differentiation of OEP approvals from local monthly approvals for rental purposes.

On the basis of available utilization records we questioned retention of 296 items of IPE at contractor plants. DIPEC records revealed that 81 of 296 items of IPE were classed as being in either critical or short supply. A closer analysis of these items indicates that commercial use was concentrated on the IPE with the highest average acquisition cost as follows:

	Number	Acquisition cost	
		Average	Total
Commercial use	24	$84,700	$2,032,000
Not used	43	27,300	1,172,400
Low use	14	12,500	174,900
Total	81	----------	3,379,300

Without requiring contractors to furnish machine-by-machine utilization data within reasonable limits and without enforcing realistic use criteria requiring prior approvals when such machines are to be utilized on commercial work, DOD lacks adequate assurance that the most efficient machines are used to process Government work, hence minimize procurement costs.

We question the Deputy Assistant Secretary's statement that the maintenance of utilization data, machine-by-machine, is impractical, very time consuming, disruptive and costly. Earlier, we pointed out that some contractors already maintained individual machine utilization data and that others were installing electronic data collection systems which had application to providing this data. It seems, therefore, that the Government will bear a share of these investments through the end-item prices it negotiates, and that the imposition of a requirement on these contractors to furnish such utilization data to distinguish Government and commercial use does not seem unreasonable.

One contractor possessing 1,091 items of IPE, each having a rental value in excess of $100 per month, would not furnish the utilization data since it was not contractually required; and, if the Government insisted on the data, he would insist on adequate reimbursement for records solely for the benefit of the Government. At this location the Government Administrative Contracting Officer estimated that it would cost about $250,000 a year to furnish utilization data for the 1,091 machines; however, he could not locate and furnish us the basis for the estimate.

We estimate that a machine-by-machine computation of the rent at this contractor would increase the annual rent payment by about $582,600. (See p. 28.)

Another contractor who reports monthly machine-by-machine utilization, broken down by Government and commercial use, furnished us an estimate of the yearly cost to provide this data on 880 machines as follows:

Recording—direct labor	$4,572
Processing—labor	1,725
EDP machine time	678
Forms	425
Total annual cost	7,400

Recommendations

It seems reasonable to expect that, if the Government provides IPE to contractors, the contractors should furnish the Government data as to how they are using it. Our review demonstrates the effectiveness of controlling IPE on the basis of use data provided on a machine-by-machine basis. Therefore, we recommend that the Secretary of Defense emphasize this basis in the study which DOD will perform regarding the feasibility of maintaining utilization records within the limits suggested earlier in this report.

Also, we recommend that the Director, Office of Emergency Planning, similarly administer prior approvals for planned commercial use of IPE.

Redistribution of industrial plant equipment

Idle IPE not redistributed by DIPEC in some instances

At DIPEC our examination was directed toward the identification of requisitions for items of IPE which were available in contractor's plants or reserve stocks and were not redistributed. Our examination of 151 requisitions selected at random from an estimated 13,620 requisitions for metalworking and general plant equipment processed by DIPEC during the 6-month period ended June 30, 1966, showed 12 instances where suitable equipment which had been reported as available was not offered to meet the requirement.

Our sample indicated that during the 6 months DIPEC could have offered to fill an additional 1,082 requisitions from metalworking and general plant equipment in its idle inventory. However, because our estimate is based on statistical sampling, the number of additional requisitions that DIPEC could have offered to fill could be as low as 487 or as high as 1,677, with 95 percent assurance that this conclusion is correct.

On the basis of the average unit value of such equipment in the inventory as of December 31, 1966, we estimate that the total value of the additional equipment that could have been offered during this 6-month period was about $12 million. We also found that additional IPE was purchased to satisfy the requirement in six of the 12 instances. In another instance, equipment on hand was modified at an undetermined cost in order to fill the requirement.

We found in five instances that available equipment was not offered because persons directly responsible for making equipment allocations had not been adequately instructed and were making decisions that certain requisitions should not be filled, even though DIPEC's policy is to allocate available equipment to fill established requirements of any authorized requisitions.

For example, in May 1966, DIPEC received a requisition for a milling machine. The requisition was funded and indicated that the item would be purchased if not available from DOD's idle equipment. DIPEC issued a Certificate of Nonavailability and the requestor purchased the item at a cost of $10,159.

Our review of DIPEC records showed that a similar piece of equipment was in an idle status at the time the requisition was processed. DIPEC representatives stated that the idle equipment was not offered because of a belief that the requesting agency intended to place the item in stock and did not have a specific use for the item. However, our review of the requisition submitted to DIPEC showed that the item was required to supply a high-priority requisition from the Aberdeen Proving Ground, Maryland.

In another instance, we found that a requisition was not filled because a suitable item had not been recovered from DIPEC's excess stocks when requirements computations showed that the item was needed. DIPEC had not issued instructions requiring the screening of items recently declared excess, but still on hand, when later computations showed additional requirements.

For the remaining six requisitions, we were unable to identify any specific reason why they were not filled from the idle equipment inventory. Officials of DIPEC agreed that the items of IPE identified by our review were suitable to meet the requirements shown on the 12 requisitions.

We proposed to the Secretary of Defense that DIPEC's management controls be reviewed and new or additional directives be initiated, where required, to ensure that all equipment which could be utilized to meet anticipated needs is considered and that suitable equipment is offered to authorized requisitioners in each instance when it is available. We proposed that a program of personnel training and supervisory review be instituted to ensure adherence to established policy and procedures.

Agency comments

The Deputy Assistant Secretary advised us that DIPEC had established a training program for all DIPEC commodity managers and that particular emphasis was being placed on the requirement to document the issuance of Certificates of Nonavailability or other specific conditions under which items in inventory are rejected as unsuitable for the intended use.

In view of the action taken by the Department of Defense, we are not making any recommendation at this time.

Rental of industrial plant equipment—general

Need for uniform terms in IPE lease contracts

Although uniform rates for rental of Government-owned machines to contractors had been prescribed, we found that the various bases upon which the

rent payments were negotiated resulted in a lack of uniformity in the rates actually charged, inequities between contractors, and, in some cases, reduced rent payments to the Government. The departure from uniform rates exists because the ASPR allows credits to the rent liability, representing the portion of usage for Government rent-free work, to be based on a variety of allocation bases applied to the total rent liability and because of other basic differences in the rental formulas applied at various locations.

Uniform rates prescribed.—In 1956 the need to establish uniform leasing policies with respect to rental rates was acknowledged in reports prepared by the Joint Committee on Defense Production and the United States Senate Select Committee on Small Business. One report states that sizable numbers of Government-owned machine tools were being leased to private industry and that, because a uniform leasing policy had not been adopted, discrimination and apparent low-rental policies tended to place small concerns at a competitive disadvantage. Moreover, the Select Committee on Small Business believed that leasing for non-Defense purposes should be held to a minimum; a policy which is currently reflected in OEP and DOD instructions.

Therefore, an Inter-Agency Task Group was formed with members representing the DOD and six other agencies of the Government. On June 19, 1957, the recommendations of the task group, which were developed by consulting representatives and leasing experts in the machine tool industry, were adopted and uniform rental rates for the leasing of Government-owned machine tools to private industry were established. The uniform rates, which are currently stated in OEP's Defense Mobilization Order 8555.1 and ASPR section 7–702.12, were adopted on the premise that all lessees should be treated alike and that all pay rent at the same rates.

The uniform rental rates for machine tools and secondary metal-forming machinery are as follows:

Age of equipment	Monthly rental rate applied against acquisition cost (percent) *Percent*
0 to 2 years	1¾
Over 2 to 6 years	1½
Over 6 to 10 years	1
Over 10 years	¾

Current lease terms permit inequities—The DOD allows rent-free use of its facilities for military orders, and, where authorized for commercial work, its use is generally shared. Although the gross rent liability usually is determined from the prescribed ASPR rates, machine by machine, inequities arise, in some cases, in computing a rent credit representing the portion of rent-free Government work. This occurs because ASPR allows and contractors compute rent reductions based on overall allocations of the workload between Government and non-Government work according to the relationship of various factors—such as sales, labor hours, or machine hours—rather than computing rent reductions machine by machine according to the ratio of shared usage of the particular machine.

We did find in one instance that the overall allocation method used produced rentals comparable to an individual machine computation. In two cases we found that the overall allocation method resulted in lower rents for the Government. This effect was caused in these cases by averaging machine utilization and combining higher utilization for Government work of lower valued machines with higher utilization for commercial work of high valued machines. In additional cases inequities were caused by other basic differences in the rental formulas applied at different locations. Some of the differences we found are illustrated below:

One contractor computed rent on a machine-by-machine basis and computed the rent credit for each machine individually on the basis of the number of machine hours applied separately to Government work and to commercial work. However, where separate tabulations of actual machine-hour use could not be made for certain support equipment, no rent was charged. As a result, the contractor used the Government-owned support IPE for commercial work without charge.

At another location, the contractor computed the rent credit on the basis of the average utilization of the machines used for Government work. The inclusion of certain downward adjustments, because it was considered a reserve plant, and the use of an average ratio of machine utilization in the calculation resulted in a lower rent liability than would have resulted from calculating rent on a machine-

by-machine basis. On the basis of machine usage for a 10-week period, we estimate that a machine-by-machine calculation would have increased the rent payment for the 12 months ended September 30, 1966, from $226,400 to $809,000 or $582,600, in excess of the present method. The cost of maintaining utilization records, machine by machine, amounted to $7,400, as estimated by this contractor and the details of this estimate are shown on page 23 of this report.

In another case, rent of IPE applicable to a Navy standby facility is based upon 2 percent of sales prices. ASPR prescribes use of the uniform rates and currently makes no provision for computing rent on this basis. We were unable to make a determination of rent based on machine-by-machine use data in this instance; however, we estimate that, under the current procedures permitted by ASPR, the rent would have increased from $83,000 to $194,000 during the year ended September 30, 1966.

Rent for IPE was computed according to varying formulas in each of four facilities contracts negotiated by different military services with the same contractor. We noted that the rent paid for use of like classes of machines of similar age and value would vary widely due to differences in rent formulas.

Rent payments in another case were minimized through the computation of the rent credit including engineering labor hours which had no relationship to machine hours or to the rent of the IPE. In the rent computation at two contractor locations, the rent liability, before applying the credit, was based on application of the ASPR rates to all Government IPE at one location, while at the other location only the Government IPE requested for commercial use was included.

Prior approval to rent IPE not always requested

We noted instances where contractors were using IPE for commercial work for which approval had not been requested in advance although approval is required by the facilities management contract.

To discourage unauthorized use of Government facilities for commercial work, ASPR 7–702.12(e) and facilities contracts provide:

"If the Contractor uses any item of the Facilities without authorization, the Contractor shall be liable for the full monthly rental, without credit, for such item for each month or part thereof in which such unauthorized use occurs. However, the Contracting Officer may waive the Contractor's liability for such unauthorized use if he determines that the Contractor exercised reasonable care to prevent such unauthorized use. In this latter event, the Contractor shall be liable only for the rental that would otherwise be due under this clause."

In a few instances where the Government property administrator found that machines had been used for non-Government work without prior approval, the machines were subjected to the rent as normally computed. Full monthly rental was not charged because it could not be shown that contractors did not use reasonable care to prevent such use.

At one contractor plant selective floor checks conducted by the Government property administrator at month-end showed numerous instances where IPE was used for commercial work which the contractor had not included in his monthly request to the Government plant representative. In March 1965, the contractor was advised that, in the past 6 months, 7.5 percent of the IPE examined was being used without prior approval. Although corrective action was promised, floor checks revealed that during the year 1965 the incidence of discrepancies was 10 percent and during the first 9 months of 1966 it rose to 13.5 percent.

We noted instances at three other contractor locations where machines were used for commercial work without obtaining prior approval as required by the facilities contracts.

DOD reviews and corrective measures

We found that the reviews of rent by the Defense Contract Audit Agency (DCAA), when performed, were generally limited to verifying the accuracy of data in the rent computations and the procedure for computing the rent in accordance with the contract formula. An evaluation as to whether the prevailing terms of the lease were equitable to the Government was not apparent.

However, inequities which we believe exist in the rent formulas, as discussed in this report, derive from the related clauses negotiated by the respective services as part of facilities contracts. The ASPR Committee now has under consideration a policy (ASPR Case 65–19) under which the contractor will be charged rent for all Government IPE in the contractor's possession. When the IPE is used on a Government contract, the contractor will reduce the gross rent liability by the amount of a rent credit negotiated for each contract. DOD officials believe that the procedure will ensure against competitive advantage and will act as an

incentive to contractors to return IPE to the Government as soon as it becomes excess.

Conclusions

In our opinion, the determination of rent on a machine-by-machine basis and similarly applying the rent credit for Government rent-free use to each machine above an established dollar value in its ratio of Government versus commercial machine hours of use would be more accurate and more equitable than the various methods presently in use.

The maintenance of utilization data for Government-owned IPE, as recommended in our discussion of utilization practices, would provide the basis to more accurately compute rent on an item-by-item basis. The feasibility of maintaining use records, machine by machine, has been established by five contractors included in our review, and one of the contractors was computing rent in the manner in which we suggested, as detailed above. Moreover, such a procedure would eliminate discrimination in rates charged to different contractors because the credits would be uniformly computed for each item based on actual machine hours used. Broad allocations are appropriate in those cases where Government versus commercial machine usage cannot be tabulated, such as for certain common support equipment or for IPE below an established value where no utilization records are maintained. Further, the tabulation of utilization data could be expected to disclose commercial use for which approval had not been requested and thus supplement the present complete reliance on floor checks.

The DOD proposal to assign a rental charge to all Government IPE in a contractor's plant could, dependent upon the form in which it may be finally implemented, be expected to provide an incentive to dispose of or to redistribute IPE which was poorly utilized. However, the proposal retains the choice of various methods of allocating the use between Government and commercial work which, we believe, will produce inequities of the type discussed in this report. We proposed, therefore, that further study of this proposal include consideration that actual use be determined on a machine-by-machine basis.

Furthermore, it appears to us that the DOD-proposed method would be exceedingly complex to administer, particularly as to the effect of contract changes after the negotiation of rental credits under the contracts, and we proposed consideration of this question if not previously considered. Industry reaction to the DOD proposal has not yet been obtained, and therefore we are unable to complete our evaluation of this alternative.

The present ASPR clause, which would make a contractor liable for the full monthly rent for use of Government IPE without authorization, was apparently intended to prevent such unauthorized use. We believe that the penalty concept is appropriate since a penalty, or even normal rent, can be assessed only in those instances where unauthorized use is detected by Government property administrators. However, in the few instances where we noted that unauthorized use had been detected, the penalty had not been imposed because of the "reasonable care" limitation in the clause. We proposed that, in order to improve control over the use of Government IPE, the Department consider the need for more stringent language in the present ASPR clause.

Agency comments and our evaluation

The Deputy Assistant Secretary indicated that several alternative proposals concerning conditions for use of Government plant equipment were being considered by the ASPR Committee, none of which contemplate a determination of actual equipment use on a machine-by-machine basis. With respect to the need for more stringent language in the present ASPR clause, the Deputy Assistant Secretary has stated that DOD has continuously taken the position that contractors should be held liable for any unauthorized use; however, he has indicated that the Department will consider the need for stronger language in paragraph (e) of the "use and charges" clause (ASPR 7–702.12) to ensure adequate control over the use of Government-owned IPE in possession of Defense contractors.

Our proposal to compute rent on a machine-by-machine basis is the most accurate system within our knowledge, and it also provides data for management determination of the contractor's continued need for the machines. Moreover, our report points out the existing inequities caused by basic differences in the rental formula applied at different locations.

Recommendation

We recommend to the Secretary of Defense that the ASPR Committee closely examine the feasibility of computing rent on a machine-by-machine basis and

similarly applying the rent credit for Government rent-free use to each machine above an established dollar value in its ratio of Government versus commercial machine hours of use.

Revised rental procedure needed to increase return on investment in heavy presses

The Air Force heavy press program was begun during World War II as an attempt to produce major aircraft structural elements through forging and extrusion processes. Since there was no commercial requirement at the time for presses of this size, the Air Force undertook the sponsorship and support of the heavy press program. The first of these presses was released to production in 1946; additional presses were acquired during the 1950's. The program currently includes about 13 presses, costing about $76.4 million, which are located at seven plants. Four of these plants are Government owned and three are contractor-owned. Also, the Air Force has provided land, buildings, and support equipment costing about $132.6 million.[1]

Rent for the use of the heavy presses has generally been charged for all work, both Government and commercial, at the rate of 4 percent of sales. Air Force officials said that one of the reasons for basing rent on sales was to relieve the operators of some of the risk of initial operation during early stages of the program. Basing rent on sales removed part of the risk, since no rent would be due from the operator unless a salable product was produced and sold. A second reason for basing rent on sales was ease of administration. Utilization records would not be necessary and Government surveillance could be held to a minimum.

At the three locations visited, we found that the heavy press rent liability for the most recent 12-month period available totaled about $1.9 million. Of this amount, about $1.4 million was applicable to Government work. The total rent liabilities in this 12-month period represented returns on the Government investment ranging from 1.03 to 2.03 percent.

In some cases the presses were used at capacity and significant amounts of commercial products were being processed. In comparison with current rates of return on Government bonds and commercial paper, the 1 to 2 percent annual return on the Government's investment in heavy presses appears to be too small from a financial point of view.

We did not review the pricing or purchase orders at higher subcontract or prime contract levels to determine the effect of the rental cost on end-item prices. However, since the press operators may be below the first tier subcontract level, the portion of the end-time price attributable to rent may include the indirect expense and profit factors of one or more tiers. Because of the application of such factors to the cost base at each tier, it seems logical that the cost of rent included in the Government's end-item prices may be significantly greater than the rent received by the Government from the heavy press operators for the same work.

One reason which has been advanced by Air Force officials for retaining the present rates was that an increase in rental rates applicable to both commercial and Government businesses would cause increased spending of appropriated procurement funds, because of the inclusion of rent costs, plus the application thereon of indirect expense and profit factors of higher tier subcontractors and the prime contractor, in the end-item prices. Air Force officials said that the reason for charging rent for all work was the difficulty of ensuring that the Government would receive adequate consideration for rent-free use, as is required by ASPR 13-402. Since the heavy press operators are often as low as the third tier subcontract level, they stated that it would be difficult to determine whether a reduction in the press operators' costs would be passed on through all the higher tiers and would result in lower end-item prices. They stated further that they would authorize rent-free use under special circumstances. They said that the Navy has prime contracts with three extrusion press operators under which rent-free use would be feasible but has not been requested.

A review of heavy press rental policies was requested by OEP in 1965, with a view to possible modifications which would increase the yearly monetary return to the Government. The review was made in 1966. Air Force officials would not provide us with information developed under this review because the report had not been released.

[1] Data in this paragraph are based on a 1962 report; however, an Air Force official at Wright-Patterson Air Force Base advised us that there had been no significant changes after that time.

Conclusions

We believe that there is an alternative to an across-the-board increase which appears to be more equitable and which, at the same time, should bring a more realistic return to the Government. This would be to authorize rent-free use of the presses when used on Government work and to increase the rental for commercial use of the equipment.

The overall use of the presses has significantly increased since the inception of the program. Although the predominance of use is for Government end-items, significant amounts of commercial sales are now being processed through the presses. Also, the present procedure provides no assurance that Government end-item prices are not significantly increased by the pyramiding of higher tier indirect expenses and profit on the rent cost included in prices to the Government of forgings and extrusions. The authorization of rent-free use for Government work would also be consistent with the general leasing practices governing other types of IPE used by contractors and subcontractors on Government orders.

In comparison with current rates of return on Government bonds and commercial paper, the 1 to 2 percent annual return on the Government's investment in heavy presses is not acceptable, in our opinion, from a financial point of view. We proposed, therefore, that DOD reexamine its current policy of not authorizing rent-free use of Air Force heavy presses used on Government work and that priority effort be applied to increasing the Government's return through rental arrangements.

Agency comments

The Deputy Assistant Secretary has advised us that DOD, in conjunction with the Air Force, is reexamining existing arrangements pertaining to rental charges for use of these presses and is considering such aspects as the waiving of rental charges for Government work, the increasing of rental returns on commerical use, and the feasibility of selling some of the presses to Defense contractors.

Modernization of industrial plant equipment

Prospects of continued large Government investment in machine tools in possession of contractors

The basic policy of DOD, as stated in ASPR, is very restrictive as to furnishing new Government-owned facilities, including, industrial plant equipment, to contractors. It provides generally that new facilities shall not be furnished where an economical, practical, and appropriate alternative exists.

The Department of Defense program for replacement of Government-owned machine tools was initiated in 1956 for the purpose of maintaining such tools in a modern condition. To accomplish this objective, the military departments were to include in their annual budget requests from 2 to 5 percent of the acquisition cost of the machine tools listed in departmental inventories. The replacement of machine tools is distinguished, in DOD directives, from the provision of additional facilities to increase production capacity.

According to DOD reports, the cost of machine tools in military inventories as of October 1966 was $2.8 billion, with most of these tools in possession of contractors. Fiscal year 1966 expenditures amounted to about $51.5 million for modernization and replacement purposes. Such expenditures had risen from an average of $27.4 million in the 1958 through 1963 fiscal year period. Expenditures of $65.8 million were forecast for the fiscal year 1967.

Anticipated savings not always realized as planned

Department of Defense Directive 4275.5 requires that the replacement of machine tools be justified on economic grounds. This directive recommends that machines not be replaced unless their cost can be amortized through operating savings in a period of about 3½ years.

The justification, which is prescribed under another DOD instruction, 4215.14, must show that the savings were based on a comparison of the operating costs of the machines then in use with the operating costs of a new machine which could replace the older machines. The reduction in cost is then computed for a 12-month period immediately following the date of preparation of the estimate on the basis of existing and anticipated production requirements known to the contractor. Annual amortization costs of the machines are also considered in computing the saving. One year after each modernization item is released for production use, the contractor is required to submit a postanalysis report to show actual cost savings for that year.

Our examination into the justification and the first-year savings included in the postanalysis reports of five contractors, which had acquired machines under this program, indicated that savings had not been achieved as planned by four of the five contractors and that planned savings had been exceeded by the fifth contractor, as shown below. We did not review the savings reported by the contractors.

Contractor	Number of machines acquired	Cost of machines	1st-year savings		Justifications in excess of amounts realized
			Included in justification	Estimated amount realized	
A	25	$3,223,000	$1,876,000	$855,000	$1,021,000
B	18	2,438,000	1,600,000	520,000	1,080,000
C	4	886,000	405,000	49,000	356,000
D	3	471,000	272,000	176,000	96,000
E	10	1,490,000	1,380,000	2,164,000	−784,000
Total	60	8,508,000	5,533,000	3,764,000	1,769,000

Although the savings were not achieved as planned by four contractors, it appears that the reported first-year savings would have provided for the recovery of the Government's investment approximately in the 3½-year guideline prescribed by the Department for three of the five contractors. However, for contractor A, one of the machines used on military production during the first year, which accounted for $450,000 of the reported first-year savings, was subsequently diverted to commercial work for about 75 percent of the production time. For contractor E also, machines usage in later years for commercial work began at 12 percent and, in one instance, reached as high as 97 percent of production time. Most of these machines were subsequently sold to the contractor.

We found differences between the savings proposed in the justifications and the reported savings due to the failure of Department guidelines to recognize the lead time needed to acquire and put the machines in operation and due to numerous errors in justification documents for contractor machinery acquisitions.

Acquisition lead time

The present Department of Defense guidelines for the computation of cost savings to be realized through the use of new machines do not recognize the time required to approve, procure, and install a machine and to make it operational. Instead, the guidelines require that contractors use the 12-month period immediately following the date of preparation of the formal justification as the base period for computing savings expected to result from the use of the new machinery.

In our review of the five contractors' machine acquisitions, we found that a considerable amount of time had elapsed from the date the justifications were prepared until the machines were put into operation. For one contractor, for example, the elapsed time averaged 20 months. In the case of two contractors, we noted no appreciable adverse effect; however, three contractors had substantially less Government production for the machines involved than they had estimated when justifying the machine acquisition.

For example, a contractor justified acquisition of machines on the basis of known or anticipated production under certain programs for the 12-month period immediately following the date of preparation of the justifications. However, from 9 to 36 months, or an average of 20 months, elapsed before the machines became operational. After the first year of production, contractor reports showed savings of $855,000 resulting from the use of these machines compared with the $1.9 million annual savings utilized to justify acquisition. The reports showed that, during the first year, the actual use was only 53,000 hours whereas it had been estimated at 152,000 hours.

Three machines costing $345,000 had not been used to any great extent at the time of our review because they had not become operational until 19 months after completion of the production order for which the acquisition was justified. Savings attributable to these machines amounted to only about $2,000 during the first year after acquisition compared with estimated savings of $165,000 used to justify their procurement. Another contractor included in the justification the production requirements for three different missile configurations for which it was known that production would be virtually completed or substantially

curtailed by the time the machines could be installed or would be substantially curtailed during the year following installation of the machines.

Preparation and review of justification data

We found numerous errors in contractors' justifications which, if they had been detected and corrected, would have indicated that the savings anticipated from use of the machines were not sufficient to recover the cost of the machines as specified on the form submitted. Among the errors were estimates of production requirements in excess of requirements shown on contractors' productions forecasts; labor and efficiency rates in excess of the rates warranted on the basis of actual experience and records; and in two cases, inclusion of the savings anticipated on commercial production.

At the one military command headquarters visited, available records indicated to us that a detailed review had not been made of contractors' justifications. Officials at the headquarters advised us that they had relied on the accuracy of the presentation by contractors and the evaluation by the service plant representative. Further, we were advised by these officials that, due to a shortage of manpower, they had been able to perform only limited reviews.

Agency officials at one contractor's plant, in most instances, forwarded the justifications to higher headquarters without specific findings, corrections, or recommendations. Officials at another contractor's plant advised us that their review of justifications consisted of examining, on a selective basis, supporting records such as cost records and purchase order requirements. Although we found in the files at one location reference to reviews by the military service representative, we found no evidence as to the records examined or the extent of the review. The military service representatives stated they had reviewed cost savings information in a few cases, but with little success due to lack of support for the savings estimate.

For example, one contractor submitted a request for an 8,000-ton press valued at about $1.4 million. The justification was based on a projected annual production of 79,380 units of a jet engine blade, including both commercial and Government requirements. A production forecast submitted by the contractor with the justification showed 27,215 units of the blades for about the same period as the 79,380 units used in the justification. The 27,215 units consisted of 14,507 units of the military blade and 12,708 units of the commercial blade.

After installation of the 8,000-ton press, the contractor reported production of 10,118 blades on the press during the first year. Total production was about 24,000 blades on all presses during the same period. After the first year, the press was used extensively for commercial production. Prior to approval of purchase of the press, the contracting officer requested the resident auditor at the contractor's plant to review the validity of the justification data. However, officials at the command headquarters authorized procurement of the press before the review was made. The responsible military service representatives had, in several instances, attempted to verify the savings claimed but found that the contractor was unable to substantiate its computations or to show that the savings were passed on to the Government.

Expenditures of $471,000 for three machines were approved for another contractor on the basis of first-year savings of $272,000. We found that the projected estimated savings data were substantially overstated. This resulted from the contractor's basing the savings computation in part on excessive indirect labor rates and on maintenance charges lower than indicated by experience and failing to include tooling costs attributable to modern machines. After adjustment for these differences, savings of about $154,500 for the first year of operation would have been indicated. Our review of the files on the contractor justifications involved indicated to us that a thorough review of the justifications had not been performed. In most instances, justifications were forwarded to higher headquarters without specific findings, corrections, or recommendations.

Although we are unable to surmise the effect that accurate justification data would have had on the decision to purchase the machines discussed in the above examples, we believe that it is evident that such decisions should be based upon accurate information.

Need for assurance that resulting savings will be passed on to the Government

Savings resulting from the modernization and replacement of machines used under cost reimbursement contracts are passed on to the Government since reimbursement to the contractor is based on costs incurred. For incentive-type

contracts priced prior to a modernization action, the Government participates in savings resulting from use of new machines only to the extent of its profit-sharing ratio. In the case of firm fixed-price contracts priced prior to modernization action, no return is normally achieved unless special contract provisions are made.

At the time of our review, the Department's procedures did not require a contractual provision for recovery by the Government either of savings, under firm fixed-price contracts or of the full amount of savings under incentive-type contracts. In our reviews, we identified certain contracts where price adjustments seemed to be appropriate to permit the Government to realize the full savings resulting from the provision of new Government-furnished equipment. However, we also found that in many cases the savings reported by the contractor were not supported by sufficient documentation for verification.

For example, as discussed previously, in 1960 a contractor acquired an 8,000-ton press at a cost of $1.4 million for production of jet engine blades. In May 1963, the contractor submitted a report showing savings of $450,000 for the 1-year period when the press was in productive use. An Air Force review of the savings disclosed that the savings had been based on judgment and assumptions, and contractor officials agreed with the conclusions of the Air Force review. We found that there had been no price reduction under fixed-price contracts for blades produced on the new machine during the first year of production. Another Air Force review in June 1966 indicated that there had been no improvement in the contractor's accounting system with respect to determination of savings.

Another contractor had a number of multimillion-dollar incentive-type contracts which had been negotiated before various new machines were added to its facilities contract and were in an active status at least a year after the machines were placed in operation. The prices of these contracts had not been specifically adjusted to reflect modernization savings. The utilization of the machines under a contract could not be determined from the contractor's records. Government contracting officials told us, however, that, during the operating period referred to, the machines were utilized almost entirely on Government programs and that they could have been used on the incentive contracts.

The Department currently has in process a proposed new ASPR section 7–705.20 which provides that any savings under certain types of contract that result from the furnishing of new equipment are to be returned to the Government either as direct reimbursements or through contract price reductions. It also prescribes the maintenance of adequate records for this purpose. The section is limited to firm fixed-price contracts or subcontracts or to fixed-price contracts or subcontracts with escalation.

Private investment in plant equipment not always encouraged

DOD Directive 4275.5 states as a general policy that:

"Basically, the contractor will be encouraged to replace old, inefficient Government-owned equipment or manufacturing processes with modern more efficient, privately owned equipment. * * *

In submitting justifications, contractors generally were not required to include statements as to their ability or willingness to finance the equipment. At most locations where we inquired into this matter, either the contractors had not been requested to acquire privately owned equipment or the files gave no indication that use of private funds had been considered in evaluating the proposals we examined.

As to the latter cases, we were informed by Government officials that contractors had been encouraged to use private capital; however, no record of such attempts was found. At two locations, we did find evidence that the possibility of contractor financing had been questioned in connection with certain submissions; in which cases Government financing was justified because of contractor investment in other equipment of facilities. It appears to us that the Government's investment in this program is sufficiently great and that the question of contractor financing should receive positive attention in all cases.

For example, four items of IPE were being furnished to one contractor under modernization programs at a total estimated cost of $422,000. The contractor's investment in IPE was three times that of the cognizant military service and included his expending $4.4 million for 110 items of IPE in 1965 and 1966. Contractor officials indicated to us that, if the purchase of the four items had been necessary, they would have been willing to make the investment at that time. Service officials stated that they had made the replacements on the basis of estimated savings anticipated from the provision of more efficient machines and that they were following the replacement guidelines set out under DOD Directive 4275.5 which states, in part:

"Five percent of the value of the inventory of production equipment in current use will be considered as a valid level for programming annual replacement of the active industrial equipment. * * *"

The fiscal year 1966 modernization program for another contractor included four gear-making machines amounting to $232,100. The justification for replacement was based on data showing that the investment would be repaid within 3 to 4 years through reduced operating costs. We noted that, to achieve this objective, the initial-year use would have had to exceed current use by about eight times but that, as of September 1966, the contractor still had no active requisitions for additional gear machine operators. Moreover, one of the replaced machines had been used exclusively for commercial work for at least a year. Military officials informed us that the contractor had not been encouraged to invest its own capital in these machines.

DOD officials informed us that existing and experimental incentives have met with limited success in encouraging private investment in IPE. Department officials directed our attention to the following factors.

1. The weighted guidelines which provide additional profit to contractors providing equipment required for DOD contracts were generally considered insufficient by contractors to warrant purchase of the IPE.

2. The facilities amortization plan which guarantees contractors a minimum depreciation recovery had been tested at some contractor plants and was unsuccessful. Under this plan, if a contract were terminated before 50 percent of the investment had been written off for tax purposes, the Government would underwrite the difference. Contractors felt that this procedure offered no greater incentive than that currently existing under tax regulations which allows accelerated depreciation charges.

3. The short duration of Government contracts, as a practical matter, reduced the incentive for contractor investment.

4. In allocating funds under modernization programs, the Department gave consideration to the contractor's record of investing its capital in equipment. The needs of the overall military programs were the underlying consideration; however, the estimated savings shown on the application for the IPE was a primary factor in providing funds.

One contractor informed us that its policy was to invest in IPE one half of its after-tax earnings, plus the amount of depreciation for the period. The remaining IPE needed would then be requested from modernization funds and the DIPEC inventory. The stated policy appears to be in consonance with present DOD objectives in the modernization program.

Conclusions

While the Department's policy is very restrictive as to the conditions under which new Government facilities will be furnished to contractors, the modernization and replacement program appears to provide a means for contractors to acquire new machines for old ones under different and less restrictive criteria. The program as presently administered will, in our opinion, perpetuate the large Government investment in general purpose machine tools in possession of contractors and thus defer indefinitely the time when contractors must furnish all facilities, in accordance with the Department's basic policy, required for performance of a Government contract.

We proposed that, in consonance with the foregoing conclusions, the Department place concentrated effort on the revision and administration of the following aspects of its industrial facility modernization and replacement program.

1. Inclusion in procedures of a requirement for the specific consideration of, and a statement as to, the contractor's ability or willingness to privately finance modernization proposals.

2. Consideration of a revision of guidelines to make the provision of Government-furnished plant equipment more directly related to new, major defense programs.

3. Improvement in the validity and review of justification and actual experience data, with particular attention to the commercial use of Government-furnished equipment.

4. A reexamination of the principle of recovery of savings through repricing of incentive-type contracts and subcontracts.

Agency comments

The Deputy Assistant Secretary agreed with our proposals and stated that it was DOD's policy that the contractor be encouraged to replace old, inefficient Government tools with more modern, efficient, privately owned tools. He indi-

cated that current procedures would be modified to require the specific consideration of and a statement as to, the contractor's inability or unwillingness to finance equipment modernization.

The Deputy Assistant Secretary advised us that the Department would review the need to revise its guidelines as they apply to both new and existing major defense programs. He indicated that the problems highlighted in our report stemmed primarily from administration of the modernization program rather than from inadequate guidelines. He stated that such deficiencies would be corrected through a program to improve the technical competency of Government property administrators, which would require more detailed evaluations of the validity and review of justification and experience data at the local levels and workload projections far enough in the future to allow for administrative and procurement lead time.

The Deputy Assistant Secretary indicated also that the subject of recovery of savings under all types of contracts had been under consideration by the ASPR Committee for some time and that the views expressed by the General Accounting Office on recovery of savings in the repricing of incentive-type contracts were being considered by the Committee.

Transportation and installation costs

We noted at some contractor locations that the costs of installation and/or transportation associated with the acquisition of IPE had not been identified and recorded.

These circumstances are not in accordance with the accounting principles and standards prescribed by the Comptroller General of the United States providing that the basic costs of property shall reflect all costs associated with acquiring the assets in the place and form they are to be used and managed.

The ASPR, section 7–702.12, provides that, for rental computations, the cost of facilities shall include the cost of transportation and installation. We found that these costs had in some cases been applied as a percentage factor to the acquisition cost of IPE being rented by contractors. One contractor added a factor of 3.5 percent, another contractor added a factor of 1 percent. That these costs can be significant is illustrated by the fact that, in one case, a contractor increased the rental base for IPE by as much as $800,000 through the addition of a factor for transportation and installation. At one contractor location where installation and transportation costs had not been recorded, rent was computed without the addition of a factor for these costs.

The ASPR authorizes contractors to use DD form 1342 as the subsidiary property record for IPE, but the form does not provide for the costs of transportation and installation to be accumulated and recorded. Contractors sometimes rely on this record as a means of accounting control and as a basis for reporting.

Conclusions

We believe that the recording of such costs is necessary to provide reliable and visible cost experience data for property management decisions involving economic considerations such as those related to acquisition, redistribution, and disposal of these assets, as well as for rental calculations. In order to provide an accurate and uniform basis for accounting for Government-owned property, for management decisions, and for rental charges, we proposed that contracting practices and ASPR provisions be studied with the objective of providing a method for appropriately accumulating, recording, and reporting transportation and installation costs which are borne by the Government.

Agency comments

The Deputy Assistant Secretary agreed that, as a general principle, the cost of plant equipment should include the cost of transportation for delivery to the current installation site, including the cost of installation. Further, he stated that compliance with ASPR 7–702.12 made it necessary that the cost of plant equipment include the cost of transporting and installing plant equipment in the present location in Defense contractors' plants for the purpose of determining charges for use of the equipment. He stated that action would be taken to ensure compliance with this requirement by amending ASPR after study of the most feasible way of obtaining equitable cost data by accounting or statistical methods.

Duplicate recordkeeping

The Navy is maintaining records of its IPE, which duplicate those maintained by contractors and DIPEC. The Naval Supply Center located in Bayonne, New Jersey, maintains records of Navy-owned IPE involving nearly 13,000 items of

property for about 175 contractors. Similarly, the Naval Training Center, Great Lakes, Illinois, maintains records involving 22,600 items of Navy-owned IPE, which duplicates those of about 100 contractors.

Paragraphs 025307 and 036050 of the Navy Comptroller's Manual provide for this property accounting responsibility and paragraph 025307 indicates that there are a total of 21 naval activitites which maintain records of Navy-owned IPE in the possession of contractors. We were told that these records serve as a control over Navy-owned IPE. Moreover, naval accounting activities are authorized to prepare monthly reconciliations of plant account (NAVCOMPT Form 167) which are sent to contractors, DIPEC, and the respective naval regional finance centers when changes occur during the month. Otherwise the reconciliations are prepared on a semiannual basis.

Conclusion

This recordkeeping, while required by Navy procedures, appears to be in conflict with ASPR B-301(a) which relates to control records maintained by a contractor for Government property. This section states, in part, that:

"* * * It is the Government's policy to designate and use such records as the official contract records, and not to maintain duplicate property control records * * *".

We proposed that a study be made of methods by which DIPEC records could be used for Navy property management purposes, with the objective of eliminating duplicate recordkeeping by the Navy, and that DOD investigate the possibilty of similar duplications in the other military services.

Agency comments

The Deputy Assistant Secretary advised us that duplicate recordkeeping related to Navy-owned IPE in possession of contractors was being discontinued and that the requirement for records would be satisfied by reliance upon both the contractor and the DIPEC property records. He futher stated that ASPR (apps. B and C) was being revised to prevent duplication of property records in all Defense agencies and, if other duplications were found in the military departments, corrective action would be initiated.

Real property

Our review of the accounting and control of Government-owned real property facilitites being used by contractors was very limited. We did find in a few instances that capital improvements to Government-owned real property were not properly reflected in asset accounts.

For example, replacement of a portion of the plant's electrical distribution system costing about $104,100 was determined not to be of a capital nature because is replaced an existing system. We noted, however, that the capacity of the system to provide service was significantly greater after its installation and that the useful life of the property was extended by at least 10 years.

In another instance, an atmospherically-controlled room was constructed at a cost of about $37,800 to house four gear machines and related test equipment but the cost was expensed because the room did not alter the exterior dimension of the plant.

In accounting for changes as described above, the accounting principles and standards prescribed by the Comptroller General provide that the cost of replacement property will be capitalized and that the cost of features superseded or destroyed in the process will be removed from the property accounts.

We believe that it is important that guidelines be prescribed in sufficient depth to achieve accurate and uniform accounting treatment of such costs, so as to minimize inconsistencies in the records because of varying personal opinions.

Agency comments

The Deputy Assistant Secretary advised us that DOD would develop for inclusion in the ASPR necessary criteria for capitalizing or expensing costs incurred on Government real property in possession of Defense contractors.

Special Tooling and Special Test Equipment

Weaknesses observed in controls over special tooling and special test equipment

Special tooling and special test equipment in the possession of contractors represent a significant investment by the Government. The estimated cost of this class of property at the contractors' plants we visited amounted to more than $347 million, or over one third of the cost of Government property in the possession of those contractors.

We found weaknesses in the control of this property due to deficiencies in inventory practices, absence of financial controls, and absence of a requirement for surveillance by Government property administrators of special tooling in possession of subcontractors. Also, in some instances, Government-owned tooling was not identifiable by physical markings or in property records.

In addition, we noted that, as of February 1965, Air Force reviews of tooling at contractor plants disclosed that items classified as special tooling included over 72,000 items valued at about $84 million, which were facility-type or general-purpose items. Much of this property is adaptable to commercial purposes. Although our examination into the classification of tooling and test equipment was limited, we believe that the matter is of sufficient importance, particularly as evidence of the need for financial control of this property, that we have included our general observations in this section.

General information

The ASPR, under section B–103.14 which is incorporated in contracts by reference, defines special tooling, including special test equipment as items

"* * * of such a specialized nature that, without substantial modification or alteration, their use is limited to the producion of such supplies or parts thereof, or the performance of such services, as are peculiar to the needs of the Government. * * *"

The definition specifically excludes consumable small tools.[1]

The ASPR states that it is the policy of DOD to have contractors furnish and retain title to special tooling required for the performance of Defense contracts wherever practicable. The ASPR points out that Government acquisition of title or the right to title in special tooling creates substantial administrative burdens, encumbers the competitive procurement process, and frequently results in the retention of special tooling without a clear advantage to the Government. which will conform the definition in appendix B to that included in section XIII.

The DOD has directed contracting officers to consider the particular circumstances of each procurement in determining whether the advantages of acquiring special tooling or rights thereto outweigh the disadvantages. In this connection, the ASPR states that, where there is not adequate price competition, the Government typically pays the full cost of the special tooling regardless of who owns or has rights to it and that therefore it is usually appropriate for the Government to acquire special tooling or rights thereto. The regulation states, however, that for fixed-price contracts where a certificate of current cost or pricing data is not required, special tooling or rights thereto shall not be acquired unless the contracting officer determines such acquisition to be advantageous to the Government.

The ASPR provides for varying degrees of control over Government-owned special tooling, depending on the contract under which it is acquired. These provisions are summarized as follows:

1. In formally advertised procurements, each item of special tooling to be acquired by the Government is clearly identified in the invitation for bids by separate item or by category if individual items are low in value. Generally, the Government takes title to such tooling when it is delivered by the contractor.

2. In cost-reimbursement-type contracts, title to all special tooling furnished by the Government remains in the Government and title to all special tooling purchased or fabricated by the contractor, the cost of which the contractor is entitled to be reimbursed, passes to and vests in the Government. Special tooling acquired under cost-reimbursement-type contracts is subject to property controls incorporated in the ASPR. These controls in part require that the contractor maintain records of special tooling and provide that a Government property administrator be assigned to ensure that the contractor does, in fact, maintain adequate control over the property.

3. In other negotiated procurements, each item of special tooling to be acquired is identified by separate item in the contract wherever practicable or by category if individual items are low in value. If such identification is impracticable, title to special tooling may be obtained through use of a special tooling clause prescribed in ASPR.

The special tooling clause provides that the contracting officer may request the contractor to provide, within 60 days after delivery of the first production end-

[1] This definition is somewhat different from that contained in section XIII of the ASPR which is included in the background section of this report. In Contract Administration Panel Case 64–310, a change is proposed to the ASPR which will conform the definition in appendix B to that included in section XIII.

items, a list of all special tooling acquired or manufactured by the contractor for use in the performance of the contract and provides also that, at the option of the contracting officer, the contractor, upon completion or termination of all or a substantial part of the work under the contract, shall furnish a final list in the same form covering all items not previously reported.

If the contracting officer requests a list of special tooling, he is required, among other things, to furnish the contractor information regarding the special tooling to which the Government desires to take title.

Prior to the time when the Government takes title, special tooling manufactured or acquired by a contractor under the provisions of the special tooling clause is not subject to the controls of appendix B and to surveillance by the property administrator. Instead, the contractor is required to follow its normal industrial practice in maintaining property control records for all special tooling. Once the Government has taken title, however, the tooling is subjected to the property control prescribed by appendix B, ASPR, and to surveillance by the property administrator.

Financial controls

The purpose of financial or monetary control accounts is to provide a reasonable measure of assurance that the detailed records reflect all transactions affecting the property and are accurately presented. The monetary control accounts which are maintained by individuals generally independent of those maintaining the detailed property records, summarize receipts, dispositions, and balances on a dollar basis. The assurance is provided by evidence of agreement between the control account and the aggregate of the detailed records.

Through independent inventory procedures, the physical status of the property as presented in the detailed records can be verified or differences disclosed—both in units and dollars—for management investigation and disposition. The ASPR prescribes only the maintenance of individual property records reflecting, among other things, description, price, and quantity of individual items of special tooling and special test equipment.

Our review revealed that the absence of a requirement for monetary control accounts precluded the collection of reliable financial information and, in our opinion, resulted in insufficient internal control for the protection of these assets.

For example, at one contractor's plant, the contractor maintained a perpetual inventory record for special tools acquired for production contracts. Several years ago, the Government had acquired $55 million worth of special tooling at the contractor's plant. The contracts provided that the contractor would follow its normal industrial practice in maintaining property control records. The contractor was not maintaining monetary control accounts and the stock record cards included both contractor-owned and Government-owned tooling without designation of ownership and without indicating unit cost data. We could not determine from the records whether existing tooling is contractor or Government owned. The contractor indicated that, to identify Government-owned special tooling, a physical inventory would have to be taken and that 20 men would be required for such an inventory over a period of 1 full year.

At another contractor's plant, property record cards were prepared by tabulating machines for special tooling and special test equipment and were filed by Government contract numbers. The contractor was not maintaining monetary control accounts for special tooling. We requested the contractor to designate the value of Government-owned special tooling in its possession. The total cost of such property was estimated at $19.2 million. This estimate was based on a count of a measured inch of property records and an estimated average value for each of the items in that measured inch, applied to the total measurement of property records.

We have reviewed Contract Administration Panel Case 64–310 which contains proposed changes to the ASPR, and we find that these changes have not added a requirement for maintenance of monetary control accounts for special tooling and special test equipment.

Need for better identification

ASPR recognizes that special tooling should be properly marked and that records should disclose ownership and contract designation. It provides that, when the tools are commingled with those of a contractor, they be clearly identified and recorded as Government property. Additionally, ASPR states that the contractor's property control system shall provide, for each item of Government-owned special tooling, the contract number or equivalent code designation.

Our review at five contractor plants revealed that Government-owned special tooling was not readily identifiable.

We found at one contractor's plant that, some tools were not marked for identification and identification could be made only by reference to engineering drawings.

At the other plants, Government-owned tooling had been commingled with like items of contractor-owned tooling and identification as to ownership could not be readily determined because inventory record cards did not indicate who owned the tooling. To illustrate, we found at one contractor's plant, that records maintained for tools included those acquired at a cost of $55 million under Government production contracts but did not identify the tooling as either contractor or Government owned. The identification of tooling ownership could be made only through physical examination of the tools and isolation of those bearing Government marks. Further, the tool records did not always show the location of the tool, which made identification of the special tooling more uncertain.

Physical inventories

The taking of physical inventories is a necessary check on the effectiveness of the contractors' systems through the identification and evaluation of the propriety of any differences between or changes in the amount of Government-owned special tooling and test equipment in their possession and that shown in the records. This important element of control is recognized both by ASPR and the accounting principles and standards prescribed by the Comptroller General. ASPR does not, however, specifically require periodic physical inventories but provides that it shall be the responsibility of the property administrator to review and approve the type and frequency of physical inventories to be taken.

We found that in some cases contractors were not taking physical inventories at regular intervals and that the Government property administrators had not required that the inventory be taken. In another case, we found that the contractor was employing poor inventory practices.

At one plant, Government-owned tooling originally acquired at a cost of $55 million under supply contracts starting in 1952 had never been inventoried.

At another plant, the corporate policies and procedures, as approved by the Government property administrator, provided for a complete inventory of special tooling at least once a year. We found that physical inventories had been taken only at the completion or termination of contracts and that, as a result, items of significant amount acquired under other than facilities contracts had not been inventoried.

At a third plant, we found that the inventory taking had been limited to determining whether a particular item was on hand, without regard to the quantity of identical items that should be on hand.

We have reviewed Contract Administration Panel Case 64–310 which contains proposed changes to ASPR. Incorporated in the proposed changes is a requirement that "The contracor shall periodically physically inventory all Government property * * *" and also that "* * * the type and frequency of physical inventory and the procedures therefore shall be established by the contractor and approved by the property administrator * * *." In our opinion, this proposed change, if properly implemented, will result in improved control over special tooling and special test equipment. We note, however, that the proposed change does not impose a requirement for appropriate segregation of duties to ensure independence in inventory taking. Thus, an important element of internal control is not prescribed.

Need for improved controls over special tooling provided to subcontractors

Under prevailing instruction in ASPR, the Government does not exercise surveillance over tooling provided by prime contractors to various subcontractors. Thus, the Government does not review the existence, condition, or use of this property unless the prime contractor or the Government property administrator at the location specifically requests the assistance of the Government property administrator having cognizance at the subcontractor's plant.

Our review of tooling in the hands of subcontractors revealed that financial accounting controls were lacking and that property records in the three cases we examined had omitted cost data. In one instance, the subcontractor had no written procedures for the control of special tooling. We found also that in some instances Government-owned tooling provided to the subcontractor had not been clearly identified and recorded and that physical inventories had not been taken.

We found that Government property administrators responsible for property at the subcontractor's plant did not review special tooling unless requested to do so by the property administrator assigned to the prime contractor's plant and that the property administrator had made very few requests of this nature. There

were occasions, however, when the prime contractor had requested the subcontractor to verify special tooling in its custody.

Contract Administration Panel Case 64–310 which contains proposed changes to ASPR requires that the property administrator at the prime contractor's plant obtain from the contractor an agreement to utilize the services of a supporting property administrator having cognizance at the subcontractor's plant or a statement that the prime contractor elects to perform the property surveillance function at the subcontractor's plant with its own personnel.

Classification

An important aspect of control over tooling and test equipment is the classification assigned to such property, both initially and as it may be affected by subsequent changes in the manner of use.

We observed that the classification of general-purpose items as special tooling or special test equipment could result in the loss of rental payments for commercial use and in inadequate utilization. We also noted the classification of expendable items as special tooling and special test equipment may result in unnecessary costs of maintaining records and controls.

At one contractor's plant, we noted that the contractor had prepared a listing of multipurpose tools costing about $36 million, which were classified as special tooling.

A report issued in March 1966 by the Air Force property administrator located at this plant stated:

"It was observed that identical items sitting side by side carried facility property tags in one instance and special tooling tags in another instance. This would reemphasize the need for a comprehensive review and reappraisal of the criteria for determining how and at what point these items were sorted into facilities or special tooling. The existence of complete machines built as special tools, articles attached to facilities or real property on a permanent or semi-permanent basis, items so general in nature and so obviously nonspecialized, and yet identified as special tooling makes an ambiguous and untenable situation."

The property administrator stated that the tooling in question was being used by the contractor on all programs without payment of rent and recommended that it be transferred to the facilities contract. Apparently as a result of the property administrator's recommendation, a pending lease agreement between the contractor and the Air Force provides for the payment of rent for commercial use of special tooling and test equipment costing about $3.6 million. This amount was determined by the contractor by reviewing the list of standard tools comprising the $36 million total previously mentioned and estimating the quantity and value of such tools that could be used for commercial purposes.

Because there was no itemized listing of the $3.6 million of tooling which the contractor intended to use, it appears to us that any amount of the $36 million of tooling could be available to the contractor for commercial use. Although the lease agreement had not been executed at the time of our review, it appears that the standard tools are to retain their special tooling classification.

It should be noted that there may exist at numerous contractor plants conditions where Government-owned special tooling is common to both commercial and Government production requirements. For example, in a letter addressed to our office, a contractor stated in part:

"Aircraft engine production for the Defense Department in the late '50's softened considerably and the engine manufacturers, no doubt, sought further use of their product in Commercial aircraft. It must be remembered that these engines were almost identical to the Military versions and were made, for the most part, off of the same production tooling. In fact, parts could be made on the same line that would be used for either Military or Commercial aircraft."

Regarding the overall problem of proper classification, we found that the Air Force in 1962 recognized that large amounts of general purpose items were incorrectly classified as special tooling and initiated a comprehensive program to correct the situation.

In a letter dated September 17, 1962, the Director of Procurement Management, Headquarters, United States Air Force, stated that a review at five major contractor plants had disclosed that the Air Force had acquired a sizable inventory of facility-type items under supply contracts as special test equipment or other special equipment but that the Air Force lacked a program to control their use and ultimate disposition or to adequately control future acquisitions of such equipment. To correct this situation, the Director initiated a project called tooling inventory and disposal evaluation (TIDE). The purpose of project TIDE

was to identify facility-type items that were misclassified as special tooling and to establish appropriate controls for such equipment.

As of February 28, 1965, according to an Air Force report, project TIDE had been completed at 2,079 contractor locations and had uncovered 72,428 items valued at $84,326,000 that were facility-type or general purpose items which had for various reasons been classified as special tooling. Further, of the items reclassified, 3,286 items valued at $3,057,000 were determined to be excess to requirements of the holding contractor and were redistributed through shipment to other contractors for use or to Air Force activities for storage or use.

We also observed at one contractor's plant that many standard expendable items had been classified as special tooling. For example, we found that special tooling records were being maintained for general purpose drill bits costing about $4 each. This practice is in conflict with the ASPR definition of special tooling, which excludes classification of consumable small tools as special tooling. In our opinion, the continued classification of standard expendable items as special tooling may result in unnecessary costs of maintaining records and controls.

The DOD has under consideration a proposal (Contract Administration Panel Case 65–19) to strengthen ASPR regarding the administration of special tooling. The proposal will require reclassification of a special tooling item to a facilities item when it acquires multipurpose characteristics. We believe that, if this proposal is incorporated in ASPR and effectively implemented, control over special tooling will be strengthened.

Conclusions

Special tooling and special test equipment represent a significant portion of the Government-owned property in the possession of contractors. In our opinion, the fact that the Government has taken title to such tooling and test equipment is evidence of its nature as property having sufficient value that it should be subjected to effective accounting control. As previously noted, some tooling is usable for many years—in some cases for commercial purposes. We think that the current and future adaptability of much of this tooling to commercial purposes is persuasive evidence of the need for financial controls over such property.

It is therefore our opinion that it is necessary for tooling and test equipment to be properly classified, identified, and accounted for to prevent unauthorized use and unrecognized loss and to provide information to facilitate intelligent decisionmaking in regard to acquisition, dispositions, rental, and transfers. Although the deficiencies discussed in this report did not exist at all of the contractor plants visited, we believe that their incidence at the locations we reviewed were sufficient to substantiate a need for improvement.

It appears that weaknesses relating to classification, identification, and control of special tooling in the possession of subcontractors can be corrected by greater attention, on the part of responsible Government personnel, to contractor compliance with existing sections of ASPR or inprocess revisions thereof. The need for improved surveillance over Government-owned property by property administrators is discussed in the last section of this report.

It appears also that the weaknesses relating to periodic inventory taking will be corrected if the current proposal to change ASPR is implemented. We note, however, that the proposed change does not impose a requirement for appropriate segregation of duties to ensure independence in inventory taking. Accordingly, we proposed that such a requirement be included either in appendix B of ASPR or in the proposed ASPR appendix which prescribes the duties and responsibilities of the property administrators.

We recognize that financial accounting for special tooling is more complex than for some other classes of property and that an examination into the practical problems which may be associated with installation of such system was not possible within the scope of the current review. It is our opinion, however, that a system incorporating financial control of these assets is desirable and will be valuable as a tool of property management. We proposed, therefore, that the Department establish a study project to determine the procedures to be used and the point in the contracting process at which financial control of special tooling should be established.

Agency comments and our evaluation

The Deputy Assistant Secretary agreed that proper internal control procedures should include segregation of duties of responsible contractor personnel taking physical inventories of Government property and he indicated that the Department would review the desirability of making a revision to ASPR.

With regard to establishing a study project to determine the procedures to be used and the point at which financial control of special tooling should be established, the Deputy Assistant Secretary advised us that no change to the special tooling provision currently in ASPR was planned. He stated that, on the basis of prior experience of both the military departments and the commercial industry, special tooling had been and should continue to be considered as expendable (consumable) property and that the provision for detailing in each contract the special tooling required to produce end-items under the contract was considered an adequate basis of control. He stated also that, normally, special tooling was produced solely for a particular process or machine and that, upon determination by the contracting officer that this special tooling was no longer required by the Government, it should be disposed of in accordance with ASPR, section VIII, part 5.

We do not agree that the provision for detailing special tooling in each contract is an adequate basis for control. The preparation of such lists may be postponed indefinitely because a contracting officer may elect to waive the requirement until completion of the contract or subsequent follow-on production contracts. We noted one such instance where preparation of the lists was still pending for special tooling originating in 1952. Also, disposal of special tooling according to ASPR, section VIII, part 5, when it is no longer required is not responsive to the matters set forth in our report inasmuch as we are concerned with control (1) while the tooling still has utility to the Government and sale or rental value for commercial purposes and (2) to ensure the integrity of special tooling at such time as a subsequent decision is made to sell or otherwise dispose of it.

The Deputy Assistant Secretary's position that special tooling is expendable is at variance with Air Force reviews which established that much tooling was, in fact, facility-type items. ASPR requires that such facility-type items be under financial control. The Government has provided special tooling under major defense programs, to the aircraft engine and air frame industries. Subsequently, the introduction and manufacture of substantially similar products for commercial uses has resulted in additional uses for much of this tooling. For example, the Air Force sold its KC–135 special tooling to a contractor because the items could be applied to similar commercial airplanes.

Special tooling at the 11 aircraft engine and air frame contractors included in our review had a total approximate acquisition cost in excess of $299 million and at five of these contractors we established that portions of the special tooling had been used at one time or was currently being used for the manufacture of commercial components. The items which we question have long-term value and in some cases have multiuse characteristics. We believe that timely determinations regarding the classification of special tooling as facility-type items is essential and that careful control of special tooling under a system of financial control accounts is needed.

Recommendations

We recommend that the Secretary of Defense establish a study project to determine the procedures to be used and the point in the contracting process at which financial control of special tooling should be maintained. Also, we recommend that periodic examinations be made of special tooling to identify multiuse characteristics and that the items identified be reclassified and controlled as facility-type items.

Material

Accounting systems to control Government material need improvements

The accounting systems employed by contractors did not provide for financial control and acceptable physical inventories of Government-owned material. We attribute the weaknesses to indefinite instructions existing in ASPR, deficient physical inventory taking, and departure from good property management practices. The physical protection and security procedures were, with one exception, adequate to protect the Government-owned material at the plants we examined. To alleviate the inadequacy, the contractor agreed to reduce from 26 to 8 the number of employees having access to storage areas.

Financial accounting controls not maintained.—Government-owned material at six contractor plants was not controlled under monetary accounts. ASPR assigns to contractors the responsibility for maintaining an adequate property control system, without clearly establishing the essential characteristics of such a system. The existence of stock record cards was usually considered to be sufficient to comply with ASPR, and these were not tied into a monetary control account. We found that contractors maintained individual property records

showing description, issues, receipts, balance on hand, and price of the material. This was in accordance with ASPR, which does not require monetary control accounts for this property.[1]

In one case differences between unit records and stocks actually on hand were adjusted by requisitions which were not authorized according to the contractor's property control procedures. We found that, during the first quarter of 1966, over $2,800 of Government-owned material was written off of the inventory records in this manner. Furthermore, the write-offs were not reported to the Government property administrator.

We could not ascertain the causes of the discrepancies at the time of our subsequent review. However, financial control accounts would expose a number of types of discrepancies which would cause differences between the stocks on hand and the records; and exposure could be made in such a way as to permit timely investigation of the reason for the differences. Furthermore, financial control accounts would facilitate an accurate reporting of the dollar amount of inventory write-offs for purposes of investigations by management.

One contractor official, who estimated that several million dollars worth of Government-furnished material was on hand at his plant, stated that monetary controls for the Government-furnished material were impractical and that the contractor was primarily concerned with only quantities. Nevertheless this contractor maintained monetary controls over its own materials inventories.

We have reviewed Contract Administration Panel Case 64–210, which contains proposed changes to ASPR, and we find that these changes have not added a requirement for maintenance of monetary control accounts for material.

Inventory taking ineffective.—The physical inventory-taking procedures contained deficiencies, of varying significance, at 7 of the 10 contractors' plants where we examined material. In some cases adequate internal control did not exist because the taking of the inventory did not incorporate appropriate segregation of duties of participating personnel. For example, at one location, the individual who maintained the stock records was custodian of the material, and he also took inventory. In such cases differences between the records and the physical count can be reconciled by adjusting the records or removing the stock cards, without independent evaluation of the propriety of the transactions.

The inventory taking was incomplete in some cases because it was limited to verifying listings prepared from the property records and furnished to participating personnel; therefore, items which may have been physically on hand but not included on the listings provided would be omitted from the count.

At one location the contractor performed a physical inventory of Government-furnished material but did not require a physical inventory of material it had acquired for the account of the Government. Also, in a few cases, written procedures were lacking, the work was not properly documented, the results were not furnished to the Government, or inventories were not priced out.

We have reviewed Contract Administration Panel Case 64–310, which contains proposed changes to ASPR. Incorporated in the proposed changes is a requirement that "The contractor shall periodically physically inventory all Government property * * *" and also that "The type and frequency of physical inventory and the procedures therefor shall be established by the contractor and approved by the property administrator." In our opinion this proposed change, if properly implemented, will result in improved control over material. We note, however, that the proposed change does not impose a requirement for appropriate segregation of duties to ensure independence in inventory taking, thus an important element of internal control over these assets is absent.

Conclusions

ASPR does not require that financial accounting controls be maintained for Government-owned material in the possession of contractors. It is our opinion that a system incorporating financial control of materials in the possession of contractors is desirable and would be advantageous as a tool of property management. We proposed, therefore, that ASPR B–304.7 be amended to require financial accounting controls for Government-owned material in the possession of contractors in order to ensure adequate control and safeguarding of the assets and reliable reporting of the amounts on hand.

The internal control weakness noted with respect to the taking of physical inventories without appropriate segregation of the duties of participating per-

[1] A description of monetary control accounts and their manner of use was previously discussed in this report, page 48.

sonnel has not been corrected under the proposed ASPR change. We proposed, therefore, that the ASPR be strengthened by providing for appropriate segregation of duties of personnel participating in the physical inventories of materials.

Agency comments and our evaluation

The Deputy Assistant Secretary indicated that financial controls for material have been the subject of study for many years in DOD and that these studies are being continued. In addition, he stated that a proposal will be submitted for consideration by the ASPR Committee for criteria to establish contractor requirements for accounting for contractor-acquired Government material. He further indicated that a segregation of duties of responsible contractor personnel will be required during the physical taking of inventories.

We were also advised by the Deputy Assistant Secretary that DOD is currently revising its procedures to exclude from the previous definition of Government-furnished material those items sent to contractors for processing and return. Accounting for these items will be performed by the cognizant inventory control point or other activity of the DOD component, in both quantitative and monetary terms. Although the contractor will be required to keep item records for scheduling purposes, he will be relieved of financial property accounting.

We acknowledge that DOD has taken constructive steps to improve the administration of Government-owned material in the hands of contractors, but we believe the records and controls maintained by the contractor over this property should be at least as good as those maintained over its own material. Also, since DOD studies have been proceeding for many years, a timetable should be established and responsibility fixed for a solution to the problem.

Recommendation

We recommend to the Secretary of Defense that ASPR B–304.7 be amended to require financial accounting controls for Government-owned material in the possession of contractors.

Nonprofit Institutions

Property administration at universities

Our review revealed that financial control accounts were not required by ASPR to be maintained by nonprofit institutions, including universities for IPE and special test equipment, nor were they maintained by the two universities we visited. At one university this resulted in the loss of monetary and quantitative control over at least $52,000 worth of Government property. We also found that periodic inventories were not required by ASPR, nor were they taken by the universities even though research contracts frequently had been in process for several years and that, when inventories were taken, the procedures employed did not provide necessary internal control.

Further, we found that ASPR requirements were not being adhered to with regard to control of property by DIPEC. As a result (1) IPE at a cost of about $260,400 was purchased in fiscal year 1966, without DIPEC's inventories first being screened to determine whether acceptable IPE was on hand and available, (2) DIPEC's central inventory files were incomplete because $1.1 million of IPE on hand at the universities was not reported to DIPEC, and (3) during fiscal years 1965 and 1966, IPE in critical or short supply having a cost of $104,700 was donated to the universities, without first screening DIPEC records to determine whether the equipment was needed elsewhere in the Government.

Property accounting system needs improvement.—We found that ASPR does not require monetary control accounts and such accounts were not maintained. As stated previously in this report, monetary control accounts are accounts which are maintained by individuals independent of those maintaining the detailed property records, and the accounts summarize receipts, dispositions and balances on a dollar basis to ensure of accuracy and completeness of the detailed records. We also found that internal control was lacking in the inventory procedures used by the universities.

At one of the universities we reviewed, we tested acquisitions of Government-owned property amounting to $156,000 and we found that $52,000 of this amount had not been recorded on property cards. As a result, quantitative control over this property was also lacking. If a monetary control account had been maintained by the university, this omission would probably have been discovered when postings on detailed property records were reconciled with the monetary control account balance.

We have reviewed Contract Administration Panel Case 64–310 which contains proposed revisions to ASPR and we found that a change is being contemplated

which appears to require a monetary control account for facilities. However, no such requirement is included for special test equipment.

With regard to inventory taking, ASPR permits the Government property administrator to request the universities to perform periodic inventories, but physical inventories are mandatory only upon contract completion. We found that the Government property administrators had not requested periodic physical inventories and that generally they had not been taken even though research contracts frequently had been in process for several years. Physical inventories were generally taken only upon completion of the contract as prescribed.

We also found that, when physical inventories were taken at the completion of contracts, procedures did not provide for appropriate segregation of duties of personnel. At both locations inventories were taken, by personnel having custody of the property, through verification of a list of the property, prepared in advance from the property records and furnished to participating personnel. Thus independent verification, an important element of internal control of the assets, was absent.

A proposed change to ASPR which is incorporated in Contract Administration Panel Case 64–310 would require the universities to periodically physically inventory Government property and prescribes that the type and frequency of physical inventory and the procedures therefor shall be established by the contractor and approved by the property administrator.

We note, however, that the proposed change does not require appropriate segregation of duties of personnel participating in the inventory taking.

Need to coordinate IPE purchase, dispositions, and inventory on hand at universities with those of DIPEC.—DOD has established an extensive system, administered by DIPEC, to ensure maximum reutilization of IPE, prevent unnecessary procurement of IPE, and maintain a central inventory of IPE, including listings of critically short items. To operate this system, ASPR requires (1) screening of DIPEC assets prior to acquisition of IPE and (2) reporting IPE on hand to DIPEC.

Our review has shown that (1) DOD agencies generally approved the universities requests to purchase IPE, without first determining whether like items were available for use from the DIPEC inventory, (2) all Government-owned IPE in the possession of the universities had not been reported to DIPEC, and (3) DOD agencies were donating IPE to universities, without first screening DIPEC records for a determination as to whether the equipment could be utilized elsewhere.

DIPEC inventory not screened prior to acquisitions.—Our review showed that, generally, DOD agencies approved the universities' requests to purchase IPE without determining whether acceptable IPE was available through DIPEC.

At the two locations reviewed, we identified 56 items purchased in fiscal year 1966 at a cost of about $260,400 for which DOD components had not required screening at DIPEC even though screening is required by Section XIII of ASPR. We were informed by DOD and university officials that it was their belief that DIPEC could not supply the equipment required by the universities, especially within the delivery time desired. The 56 items we identified are of the type that is reportable to DIPEC.

Inventory on hand not reported to DIPEC.—We found that Government-owned IPE purchased by the universities at a cost of about $1.1 million was not reported to DIPEC, even though reporting is required by ASPR, for inventory and control purposes.

We also found that, at one location, the Government property administrator had discussed with university officials the omission of reporting but had not obtained assurance that the equipment would be reported. In another case we were told that IPE had not been reported to DIPEC because at semi-annual intervals the university requested and obtained title to certain of the items.

IPE was donated to universities, without DIPEC's records first being screened.—DOD is permitted, under the authority of 42 U.S.C. 1892, to vest in nonprofit institutions title to certain equipment purchased with research funds. Our review of the House Report 2640, dated August 15, 1958, revealed that the provisions of the law were intended to minimize the cost of maintaining property records and needlessly circularizing lists of highly specialized equipment, particularly minor equipment. Further, testimony given in the House of Representatives' hearings states that 42 U.S.C. 1892, was not intended to increase Federal expenditures or to subsidize the recipients, nor was it intended that title to

Government-owned equipment be transferred if the equipment were needed elsewhere in the Government.

ASPR provides the criteria to be used by contracting officers in determining whether Government-owned property should be donated under the authority of 42 U.S.C. 1892. The criteria requires in part that property should be donated to universities if either the retention of title in the Government would create an administrative burden not warranted by the value of the equipment or the keeping of inventory and records by the contractor would become prohibitively complicated or expensive. The ASPR criteria also provides that transfer of title should be made if "the transfer of title is not precluded by controls governing the equipment involved."

Our review showed that one type of controlled property, that which is subject to control by DIPEC, was being donated to the universities, without DIPEC's records first being screened to determine whether the equipment was needed elsewhere in the Government. Further, we noted that DOD components transferred title to equipment which was considered by DIPEC to be in short or critical supply. For example:

We found that, during fiscal years 1965 and 1966, DOD components transferred title to 36 items of equipment, having a cost of $104,700, which DIPEC considered in short or critical supply. At one university the equipment transferred included 24 items of general purpose test equipment, such as oscilloscopes, signal generators, and recorders for which DIPEC had a total of 258 requests for identical and/or similar equipment from other DOD agencies, which could not be satisfied.

We also found that at the same time DOD components were donating items to universities which were subject to the control of DIPEC, they were retaining title to many items costing less than $200. DIPEC-controlled items have an acquisition cost of $1,000 or more. We note, however, that a recent ASPR revision states that title to equipment with a cost of less than $200 shall be vested in the universities upon purchase of this equipment.

We believe that the current provisions of ASPR which provide criteria for those items to be donated to universities could be made clearer and thus more effective if the criteria specifically excluded DIPEC-controlled items from the donation process. We have reviewed proposed changes to ASPR, and we find that no change to the current criteria is contemplated.

Conclusions

The proposed change to ASPR, requiring periodic inventory taking, should, if properly implemented, result in more effective control over Government-owned property in the possession of universities. We note, however, that the proposed change does not impose a requirement for adequate internal control through appropriate segregation of functions in taking physical inventory. We therefore propose that such a requirement be incorporated at an appropriate place in appendix C or the new appendix of ASPR, which prescribes the responsibilities and duties of property administrators.

We believe that an effective property accounting system should also include monetary control accounts for Government-owned industrial plant equipment, and special test equipment in the possession of the universities; and we proposed that appendix C of ASPR be strengthened by requiring such financial accounting control of such Government-owned property at nonprofit institutions.

We also believe that, to avoid the possibility of unnecessary procurements, the DIPEC inventory should be screened, prior to approving the purchase of new IPE by universities and that IPE on hand at the universities should also be reported to DIPEC, as required by ASPR. We believe that, to achieve these objectives, it will be necessary for Government property administration surveillance to be more thorough to assure that existing procedures are adhered to, and we proposed increased management effort on these matters.

We believe that transferring of title to universities of industrial plant equipment which is in short or critical supply creates a potential for increased Federal expenditures, since other DOD users may be purchasing equiuipment of similar capability. We proposed, therefore, that DOD adopt more specific criteria regarding "controlled" equipment which is not to be transferred to universities (ASPR 4-214.4), particularly with respect to its application to industrial plant equipment controlled by DIPEC.

Agency comments and our evaluation

The Deputy Assistant Secretary advised us that, although paragraph C211.6, appendix C, Manual for Control of Government Property in Possession of Non-

profit Research and Development Contractors, requires colleges and universities to maintain financial accounts for Government-owned real property and plant equipment, there has been a failure to exercise compliance with the requirement. He indicated that the Department will take necessary steps to ensure compliance. With respect to financial accounting for special test equipment provided nonprofit contractors, the Deputy Assistant Secretary stated that it was DOD's policy to charge these items as operating costs to initial contracts and it did not feel it desirable to require financial accounting for them. Concerning the taking of physical inventories, the Deputy Assistant Secretary concurred that appropriate segregation of duties is needed for proper internal control and he indicated that the Department will review the desirability of an ASPR revision.

The Deputy Assistant Secretary agreed that IPE costing over $1,000 a unit should be reported to DIPEC for management and control purposes. He further stated that available IPE of this type should be screened for utilization prior to its being donated to the nonprofit contractor under provisions of 42 U.S.C. 1892 and that a revision to DSA regulations and ASPR designed to meet this objective would be processed.

The language in paragraph C211.6, appendix C, states that "The contractor's property control system *should* be such as to provide semiannually the dollar amount of Government-owned industrial facilities * * *." (Italic supplied.) Thus, as we interpret it, monetary controls are permissive rather than mandatory. Further, paragraph C211.6 is under the "Physical Inventories" paragraph, which, we believe, confuses application of the instruction. Contract Administration Panel 64–310 revises the wording from "should" to "shall" and this instruction has been placed under part 3—Records of Government Property, paragraph C–301, General. As such, the contemplated change to ASPR appears to require a monetary control account for facilities.

Special test equipment at universities at time consists of an assembly of standard items which include DIPEC-controlled-type items. These standard items have been classified as special test equipment because of their specialized nature once they are integrated with other components into complex laboratory set-ups.

Recommendations

To achieve effective accounting control over Government-owned property at nonprofit institutions, we recommend to the Secretary of Defense that ASPR be revised to clearly establish the need for monetary control accounts for IPE. We further recommend that standard IPE now classified as special test equipment be reclassified and controlled as facility-type items. Also, we recommend that special test equipment be accounted for under monetary control accounts.

Property Management Functions in the DOD

Property Management Functions in the DOD Areas for improvement in administration of Government-owned property in possession of contractors

Appendices B and C of the ASPR provide that the contractor will maintain the official records of Government property in its possession. ASPR further provides that the contractor's property accounting system must be submitted to the property administrator for approval. ASPR also requires that the property administrator periodically test the contractor's system to ensure that adequate control exists over Government-owned property.

We found that the value of the approval process as a means to ensure adequate control over Government-owned property was questionable because (1) there was little incentive for the contractor to maintain an approved system and (2) contractor systems were allowed to continue in an approved status even though the property administrator had found a significant weakness in the contractor's control over property, which was not subsequently corrected, or, when other weaknesses were, in our opinion, apparent and should have been corrected. We found that the property administrators' examinations either did not disclose many of the conditions discussed throughout this report, which, in our opinion, were unsatisfactory, or did not produce effective corrective measures. Further, we noted that in some cases the property administrator did not adequately document his work.

We also found that, for the past 1½ years, relatively few internal audits have been made of the effectiveness of property administration at contractors' plants. In addition, audits that were made regarding the adequacy of rental payment were, in our opinion, not sufficiently comprehensive to be fully effective.

DOD has taken or is in the process of taking action to improve the quality of

the work of property administrators and internal auditors. For example, a recent policy decision appears to have established the responsibility for audit of the administration of Government property. Also, the Department has in process a new ASPR section which is expected to more clearly establish the responsibilities and duties of Government property administrators.

Property administrators' surveillance and approval of systems.—Our review showed that the property administrator had withheld approval to systems employed at 5 of the 19 contractors in our review. Further, we found that ASPR does not provide an incentive for the contractor to maintain an approved system. For example:

At one location we reviewed, the contractor's system was disapproved in July 1962 because the contractor's property control procedures were not adequate. In January 1965, the property administrator again reviewed the contractor's manual for control over Government property and reported to the contractor that the manual was "* * * sadly lacking detail * * *," and approval of the system was withheld. Since approval of the contractor's system had already been withheld no further action was taken against the contractor. At the time of our review the contractor still did not have an approved system.

At another location, the system was disapproved in November 1966 because the property administrator found that the contractor's system for control of Government property was deficient in areas related to disposition, acquisition, recordkeeping, and inventory taking. Further, it was at this location that we found that the contractor had not reported 12 items of IPE which cost about $400,600 and had been idle for about 2 years, for possible reallocation by DIPEC. As indicated, the only action taken was to withdraw approval of the system.

We also noted instances where the contractor's system was allowed to continue in an approved status even though the property administrator had found a significant weakness in the contractor's control over property, which was not subsequently corrected, or, when other weaknesses were, in our opinion, apparent, and should have been corrected. For example:

The property control system at one of the universities we reviewed was approved in December 1959 and was again reviewed by the property administrator in August 1966 and found to be adequate. We found that IPE purchased by the university was not reported to DIPEC for its inventory and control purposes even though reporting was required by ASPR. The Government property administrator was aware of this situation and discussed the matter of nonreporting with university officials, but he did not obtain assurance that the equipment would be reported. The approval status of the university's system was not changed.

At another location, we noted that the property administrator approved in January 1964 the contractor's property control system which required a quarterly review of usage records to detect idle equipment. We found that the contractor was not following this procedure, nor had the property administrator required the contractor to do so. We made an analysis of the utilization data and, on the basis of use citeria prescribed by DOD, we questioned retention of 59 items of IPE costing about $859,000. During the time of our review, the contractor declared excess or was considering for disposal eight of the items costing about $111,300. The approval status of the contractor's system was not changed.

At a third location, we found that the contractor's system had been approved in August 1962. Selective floor checks conducted by the Government property administrator at month-end showed numerous instances where, during a 2-year period, commercial work was performed on IPE, which the contractor had not included in his monthly request to the Government plant representative. Although corrective action was promised, we noted that incidence of discrepancies rose from 7.5 percent of the IPE tested in late 1964 and early 1965, to 13.5 percent of the IPE tested during the first 9 months of 1966.

Documentation by the Property Administrator.—In March 1966 we reported to the Subcommittee on Federal Procurement and Regulation, Joint Economic Committee, that one of the military services regulations specifies that "* * * the file of work-papers prepared by the property administrator shall be relied upon as one of the most important indications of the effectiveness of the property administrator's work. * * *." We reported also that the documentation of the results of the property administrator's property system surveys were inadequate at contractors' plants we visited. Our current review showed some cases where the documentation was adequate and other cases where it was inadequate.

We found that where the property administrator failed to document his work, we could not evaluate the quality and effectiveness of his surveillance examinations. For example:

At one location, we noted that the sole evidence supporting the property administrator's system survey was a two-paragraph letter of approval of the system. At another location, where the property administrator reviewed the property control system, no formal documents or workpapers had been prepared, and the evidence of such a review was limited to a notation in the control file.

DOD audit efforts.—The "Accounting Principles and Standards for Federal Agencies," published by the Comptroller General, provides that all performance should be subject to adequate review under an effective internal audit program so as to provide information as to whether performance is effective, efficient, and economical.

Our review showed that, for the past 1½ years, relatively few internal audits have been made of the effectiveness of property administration at contractors' plants. Further, we found that audits that were made regarding the adequacy of rental payment were, in our opinion, not sufficiently comprehensive to be very effective.

Since July 1965, the date when the Defense Contract Audit Agency (DCAA) was established, only a few internal audits have been performed regarding the effectiveness of control over Government-owned property. The reason for this is that DCAA, as a matter of policy, does not audit the effectiveness of their "client" which includes the contracting officer and the property administrator. Further, we were informed that, because of DOD's desire to have one audit agency deal with contractors, internal auditors assigned to the military services and DSA were not permitted access to contractors records.[1] These circumstances resulted in little internal audit effort being applied toward the effectiveness of contract administration of which property administration is a part. For example:

At one plant the most recent audit of the property control system and the property administrator's activity was made in April 1964 by the Resident Air Force audit staff. At another location we were informed that an audit of the property control system had not been made for at least 6 years. At a third location the most recent audit of the property control system was made by the Navy Area Audit Office in May 1964.

In a memorandum to the Deputy Comptroller for Audit Policy, OASD (Comptroller) dated March 22, 1966, the DSA Auditor General indicated the importance of internal audit of contract administration. He noted that internal audit organizations should have access to contractor-maintained records because such access is necessary to determine techniques used by property administrators and to provide assurance that property is properly identified and adequately protected and that utilization is authorized and retention by the contractor is justified. He further indicated that DSA and DCAA could perform most effectively with internal audit's assuming no prerogative of the DCAA for contractor review and with DCAA's assuming no responsibility of internal audit of contract administration.

With regard to audit of contractor rental payments for use of Government-owned facilities, we found that the DCAA reviews were generally limited to (1) verifying the accuracy of data in the computations submitted by the contractor and (2) determining whether the procedure for computing the rent was in accordance with the contract formula. An evaluation as to whether the prevailing terms of the lease were equitable to the Government was not apparent (see p. 29). As discussed in previous sections of this report, we found a number of lease arrangements which, in our opinion, were inequitable to the Government.

Further, at one location we found that DCAA did not consider the question of whether the Government obtained the benefits of rent-free use of the IPE for its procurements. At this location the contractor had orders from nine different customers for 2.75 rocket base blanks, and all were paying rent for use of the Government IPE even though they were entitled to a rent-free waiver. In one of the cases the customer was a Government procurement agency. After we informed the contractor of this situation, it told us that the customers would be advised of the rent-free aspect in the future.

Agency actions and our evaluation

Some actions have been or are being taken by DOD to provide more definitive guidelines in the conduct of the property administrators' surveillance of contractor systems and to improve the quality of property administrators and internal audit effort.

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[1] An exception to this policy occurred in late 1965 and early 1966 when DSA was permitted to conduct an audit at several contractors' plants. The results of the agency audit were transmitted to the Subcommittee in March 1966.

In our March 1966 report to the Subcommitee, we referred to the preparation of a comprehensive manual for control of Government property which was in process. This proposed addition to ASPR is still under active consideration. This revision specifies the duties and responsibilities of the Government property administrator and defines the position of property administration within contract administration.

As discussed earlier in our report, the proposed requirements that contractors furnish utilization data for Government-owned IPE would provide an effective tool for management of the property. We believe that the property administrator's guidelines should require that this data be analyzed and compared to usage standards and criteria to identify IPE which should be reallocated to fill other DOD needs.

Also, we believe that the guidelines should include a description of the essential characteristics of an adequate property control system. We believe this is necessary in order to make the required evaluations. For example, one essential of a control system should be to segregate review responsibilities from the recording of transactions, i.e., the physical inventory procedures should include appropriate segregation of duties. Other requirements are the establishment of monetary control accounts, and periodic reconcilement to the detailed records. Further, we note that proposed changes to ASPR, which affect property administration, do not provide incentives for contractors to maintain an acceptable property control system.

During our review we observed instances where apparently qualified personnel had left their positions as property administrators because the field offered no long-term career in the middle management classified grades of GS–12 and GS–13. Adequate internal control over Government property resources goes beyond prescribing policies and comprehensive procedures in regulations and guidelines. It includes personnel having qualifications commensurate with their responsibilities and requisite employee training programs.

In our March 1966 report to the Subcommittee we cited a 1963 management study indicating that the Air Force had been unable to employ and retain the caliber of personnel needed to adequately perform the duties and responsibilities assigned to the property administrator. The study proposed to improve the quality of the work by upgrading the assigned personnel. During our current review we noted that the Air Force has begun a program to upgrade the property administration function through the establishment of revised interim classification standards to provide career development and retention of qualified property administrators. This program also includes training courses in furthering professional development of employees.

We also have noted that the Defense Supply Agency, to which most property administrators are assigned, has been considering a proposed guideline to supplement the Civil Service Commission's standard for the Industrial Property Administration Series of positions.

With regard to internal audit effort, the Office of the Assistant Secretary of Defense (Comptroller) in a memorandum to DSA and the military services, issued on December 27, 1966, established clear lines of audit policy which provided that prime responsibility for audit of the administration of Government property, including that furnished to contractors, is a part of the internal audit mission of the military services and DSA. DCAA's primary role will be to provide accounting and financial management advisory services regarding contracts and subcontracts to all DOD components. We believe that the guidelines, set forth under this policy are essential and, if effectively implemented, will significantly improve the administration of Government property.

Conclusions

Actions taken or contemplated by DOD should, generally, improve the system of control over Government-owned property in the possession of contractors. However, regarding these changes we proposed that:

1. DOD place continuing emphasis on efforts to upgrade and improve the quality of property administrators and thus the effectiveness of surveillance.

2. DOD consider what appropriate incentives should be provided to encourage the establishment and maintenance, by contractors, of approved systems for control over Government-owned property.

3. DOD initiate an effective program of internal audit of property administration.

We believe that, in general, it is reasonable that accounting principles and standards applicable to Government-owned property in possession of contractors should be at least equivalent to the generally accepted principles and stand-

ards applied in normal industrial practices, appropriate to the circumstances, for accountability and control of a contractor's own property. However, more exacting standards may be appropriate under certain conditions where dictated by peculiar requirements of public legislation or the Department of Defense.

We proposed, therefore, that the new ASPR section, which defines the duties and responsibilities of Government property administrators, incorporate a policy statement to this effect for the guidance of such officials.

Agency comments

The Deputy Assistant Secretary stated that DOD had established a joint study project to evaluate current position classification standards for property administrators (GS–1103), establish position guidelines supplementing those of the Civil Service Commission, and provide qualification and performance standards. With regard to approving contractor property accounting systems for control over Government-owned property, the Deputy Assistant Secretary indicated that a specific ASPR (see apps. B and C) requirement for annual review of contractor property accounting systems is needed and that the ASPR Committee is considering adoption of such a requirement for both commerical and nonprofit contractors. He stated also that schedule or planned internal audits by agencies and military departments and DSA should achieve the necessary audit coverage of property administration.

The Deputy Assistant Secretary concurred in our proposal that it would be reasonable to expect that those accounting principles and standards applicable to Government-owned property in possession of contractors should be equivalent to those applied in normal industrial practices. He indicated that the new ASPR supplement, covering the duties and responsibilities of the property administrator, would be amended accordingly. He stated that, if more exacting standards than sound industrial practices should be necessary, the requirement would be established by contract provision.

APPENDIXES

APPENDIX I

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., August 7, 1967.

Mr. WILLIAM A. NEWMAN, JR.,
Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. NEWMAN: This is in response to your letter dated May 1, 1967 to the Secretary of Defense enclosing copies of a draft report to the Congress of the United States, on Review of Controls over Government-owned Property in the Possession of Contractors. (OSD #2603)

The report is designed to assist the Department of Defense (DOD) in improving the accounting and control of Government-owned property in the possession of contractors. Our comments on each of the 14 recommendations are attached for your consideration prior to submitting the final report to Congress.

We appreciate your interest and help in this matter.

Sincerely yours,

W. W. SNAVELY,
Brigadier General, USAF.
for J. M. MALLOY,
Deputy Assistant Secretary of Defense (Procurement).

GAO Note: Portions of this letter have been deleted because they are no longer relevant to the matters discussed in this report.

APPENDIX II

DEPARTMENT OF DEFENSE COMMENTS ON GENERAL ACCOUNTING OFFICE REPORT

REVIEW OF CONTROLS OVER GOVERNMENT-OWNED PROPERTY IN THE POSSESSION OF CONTRACTORS

1. *Recommendation.*—We are therefore recommending to the Secretary of Defense that provisions of proposed ASPR changes be revised to meet the predominant need of providing utilization records and a means of analysis of whether the extent and manner of use of Government IPE is satisfactory. [Deleted]

Comment:

The Armed Services Procurement Regulation (ASPR is being revised to prescribe that the contractor be required contractually to establish and maintain a written system for controlling utilization of IPE. It also establishes the responsibility for each Contract Administration activity and other DOD components, to conduct property system surveys to insure the effectiveness of such a system, and to show the extent and manner of use of Government-owned IPE. Finally, it provides for control, detection, and reporting of Government-owned IPE which is not being effectively and economically utilized by Defense contractors. This case is now receiving a comprehensive review throughout the Department of Defense (DOD), and by selected industrial associations.

Also, we will study the feasibility of maintaining utilization records on a machine-by-machine basis, as for example, IPE of selected high value. If our study proves the practicality of such an approach the ASPR will be modified accordingly.

2. *Recommendation.*—We are recommending to the Secretary of Defense that DIPEC's management controls be reviewed, and new or additional directives be initiated where required to insure that all equipment which could be utilized to meet anticipated needs is considered, and that suitable equipment is offered to

authorized requisitioners in each instance when it is available. In this connection we are recommending that a program of personnel training and supervisory review be instituted to assure adherence to established policy and procedures. [Deleted.]

Comment

Defense Supply Agency (DSA) Manual 4215.1, "Defense Industrial Plant Equipment Center (DIPEC) Operations", contains DOD policies, procedures and systems for reporting idle IPE and for submitting screening requirements. When screening by DIPEC results in a determination of non-availability, or an item is allocated and then rejected for valid reasons, DIPEC issues a Certificate of Non-Availability. [Deleted.]

DIPEC has established a training program for all DIPEC commodity managers. Particular emphasis is being placed on the requirement to document the issuance of Certificates of Non-Availability or other specific conditions under which items in inventory are rejected as unsuitable for the intended use.

3. *Recommendation.*—We are recommending that ASPR 13–405 be clarified to show that prior approval is to be made on a machine-by-machine basis and that the term "25 percent non-Government use" be more precisely defined. In addition, we are recommending that ASPR be clarified to differentiate OEP approvals from local monthly approvals for rental purposes. [Deleted.]

Comment

A requirement for prior approval by the Office of Emergency Planning (OEP) on a machine-by-machine basis for commercial use over 25 percent per machine would create a substantial administrative burden not commensurate with the goals sought to be achieved. To maintain a factual utilization record by individual machine for commingled Government and contractor-owned plant equipment on a contract-by-contract basis is impractical. It would be very time consuming, disrupt the contractor's production planning process, and result in the addition of a costly administrative burden for both Government and Industry. A more practical approach, which we are pursuing, is one of more aggressive surveillance, maximum use of all plant equipment, and additional emphasis on the collection of adequate rentals. However, DOD has requested that OEP meet with us for the purpose of reaching an acceptable solution on this ponit, on the question of defining "25 percent non-government use," and the differentiation of OEP approvals from local monthly approvals for rental purposes. Also, as mentioned in our comment #1, we are studying the practicality of maintaining utilization records on a machine-by-machine basis for selected high value items of IPE.

4. *Recommendation.*—Accordingly, we are recommending that the Secretary of Defense, in connection with further consideration of a current DOD proposal for revision of the rental base, consider the determination, for rental purposes, of actual machine use on a machine-by-machine basis. Since it appears to us that the proposed method which is under consideration by DOD would be exceedingly complex to administer, particularly as to the effect of contract changes, we are also recommending consideration of this matter if not previously considered by the Department. [Deleted.]

Comment

Several alternative proposals are being considered by the ASPR Committee concerning conditions for use of Government plant equipment. None of these alternatives contemplate a determination of actual equipment use on a machine-by-machine basis. Our position regarding controls on a machine-by-machine basis is stated in the response to recommendations #1 and 3.

5. *Recommendation.*—We are recommending that, in order to improve control over the use of Government IPE, the Department consider the need for more stringent language in the present ASPR clause. [Deleted.]

Comment

DOD has continuously taken the position that contractors should be held liable for any unauthorized use of IPE. However, we will consider the need for stronger language in paragraph (e) of the "use and charges" clause (ASPR 7–702.12) to assure adequate control over the use of Government-owned IPE in possession of Defense contractors.

6. *Recommendation.*—We are recommending, therefore, that DOD re-examine its current policy of not authorizing rent-free use of Air Force heavy presses used on Government work, and that priority effort be applied to increasing the Government's return through rental arrangements. [Deleted.]

Comment

The Air Force heavy press program, a unique situation because of the high cost of the presses, required special OEP approval on all leases. It continues to receive special emphasis. DOD, in conjunction with the Air Force, is re-examining existing arrangements pertaining to rental charges for use of these presses. We are considering such aspects as waiving the rental charges for Government work, increasing rental returns on commercial use, and the feasibility of selling some of the presses to Defense contractors.

7. *Recommendation.*—We are therefore recommending that the DOD place concentrated efforts on the revision and administration of the following aspects of its industrial facility modernization and replacement program: (1) inclusion in procedures of a requirement for specific consideration, and a statement, as to the contractor's ability or willingness to privately finance modernization proposals, (2) consideration of a revision of guidelines to make the provision of Government-furnished plant equipment more directly related to new, major defense programs, (3) a re-examination of the principle of recovery of savings through repricing of incentive-type contracts and subcontracts, and (4) improvement of the validity and review of justification and actual experience data, with particular attention to the aspect of commercial use. [Deleted.]

Comment

It is DOD policy (DOD Directive 4275.5, Industrial Facility Expansion and Replacement) that the contractor be encouraged to replace old, inefficient government tools with more modern, efficient, privately owned tools. We will modify our current procedures to require specific consideration, and a statement, as to the contractor's inability or unwillingness to finance equipment modernization.

We will review the need to revise our guidelines as they apply to both new, and existing, major Defense programs. However, we feel that the problems highlighted in the GAO report stem primarily from administration of the moderization program, not inadequate guidelines. These deficiencies will be corrected through a program to improve the technical competency of our property administrators, by a more detailed evaluation of the validity and review of justification and experience data at the local level, and by a requirement for workload projections far enough in the future to allow for administrative and procurement lead time.

The ASPR Committee has had under consideration for some time the subject of recovery of savings under all types of contracts. The views contained in your letter of 30 March 1967 on recovery of savings in the repricing of incentive-type contracts are being considered by the committee.

8. *Recommendation.*—We are recommending that the contracting practices and ASPR provisions be studied, with the objective of providing a method for appropriately accumulating, recording and reporting transportation and installation costs which are borne by the Government. [Deleted.]

Comment

We agree that, as a general principle, the cost of plant equipment should include the cost of transportation for delivery to the current installation site, including the cost of installation. In order to comply with ASPR 7-702.12, it is necessary that cost of plant equipment include the costs of transportation to, and installation in, the present location of plant equipment in Defense conractors' plants for the purpose of charges for use of the equipment. Action will be taken to assure compliance with this requirement by amending ASPR after study of the most feasible way of obtaining equitable cost data, by accounting or statistical methods.

9. *Recommendations.*—We are therefore recommending that a study be made of methods by which DIPEC records could be used for Navy property management purposes, with the objective of eliminating duplicate recordkeeping by the Navy; and that the Department of Defense investigate the possibility of similar duplications in the other military services. [Deleted.]

Comment

Duplicate recordkeeping related to Navy-owned IPE in possession of contractors is being discontinued. The requirement for records will be satisfied by reliance upon both the contractor and DIPEC property records.

ASPR (Appendices B and C) is being revised to prevent duplication of property records in all Defense agencies. If other duplication is found in the Military Departments, corrective action will be initiated.

10. *Recommendation.*—We are therefore recommending that the Secretary of Defense establish a study project to determine the procedures to be used and the point in the contracting process at which financial control of special tooling should be established. Further, we are recommending that an appropriate section of ASPR be revised to require that proper internal control procedures be employed in the taking of physical inventories which would include appropriate segregation of duties of participating personnel. [Deleted.]

Comment

Based upon prior experience of both the Military Departments and commercial industry, special tooling has been and should continue to be considered as expendable (consumable) property. The provision of detailing in each contract the special tooling required to produce end items under the contract is considered an adequate bases of control. Normally, special tooling is produced solely for a particular process or machine. Upon determination by the contracting officer that this special tooling is no longer required by the Government, it should be disposed of in accordance with ASPR, Section VIII, Part 5. Therefore, we plan no change to the special tooling provision currently in ASPR.

DOD concurs with the recommendation that we require proper internal control procedures, which include segregation of duties of responsible contractor personnel taking physical inventories of Government property. We will further review the desirability of an ASPR revision (Appendices B and C) in this regard.

11. *Recommendation.*—Accordingly, we are recommending to the DOD that the ASPR be changed to require (1) financial accounting controls for Government-owned material in the possession of contractors in order to assure adequate control and safeguarding of the assets and also reliable reporting of the amounts on hand, and (2) that proper internal control procedures be employed in the taking of physical inventories which would include appropriate segregation of duties of participating personnel. [Deleted.]

Comment

Financial controls for material have been the subject of study for many years in DOD. These studies are being continued. In addition, a proposal will be submitted for consideration by the ASPR Committee for criteria to establish contractor requirements for accounting for contractor-acquired Government material.

DOD is currently revising its procedures to exclude from the previous definition of Government-furnished material those items sent to contractors for processing and return. Accounting for these items will be performed by the cognizant inventory control point or other activity of the DOD component in both quantitative and monetary terms. While the contractor will be required to keep item records for rescheduling purposes, he will be relieved of financial property accounting.

12. *Recommendation.*—We are recommending that the Department increase management efforts to ensure compliance of ASPR requirements with regard to control of property by DIPEC. We are also recommending that the ASPR be revised to (1) require financial accounting control of Government owned industrial plant equipment [deleted] and special test equipment at nonprofit institutions, (2) provide more specific criteria regarding "controlled" equipment which is not to be transferred to universities, particularly with respect to its application to industrial production equipment controlled by DIPEC, and (3) require proper internal control procedures in the taking of physical inventories, which would include segregation of duties of participating personnel. [Deleted.]

Comment

Paragraph C211.6, Appendix C. Manual for Control of Government Property in Possession of Nonprofit Research and Development Contractors, requires colleges and universities to maintain financial accounts for Government-owned real property and plant equipment. We agree that there has been a failure to exercise compliance with this requirement. We will take the neceessary steps to assure compliance.

We question the advisability of requiring financial accounting for [deleted] special test equipment provided non-profit contractors. It is DOD policy to charge [deleted] special test equipment for use on the initial contract as an operating

cost. As mentioned in our comment to recommendation #10, we feel it is not desirable to require financial accounting for [deleted] special test equipment.

We agree that industrial plant equipment costing over $1,000 a unit, at colleges and universities, should be reported to DIPEC for management and control purposes. Also, available equipment of this type should be screened for utilization prior to donation to the nonprofit contractor under provisions of 42 U.S.C. 1892. A revision to DSA regulations and ASPR designed to meet this objective, will be processed.

13. *Recommendation.*—We are recommending that the DOD (1) place continuing emphasis on efforts to upgrade and improve the quality of property administrators and thus the effectiveness of their surveillance over Government-owned property in the possession of contractors, (2) consider what appropriate incentives should be provided to encourage the establishment and maintenance, by contractors, of an approved system for control over Government-owned property, and (3) initiate an effective program of internal audit of property administration. [Deleted.]

Comment

DOD has established a joint study project to evaluate current position classification standards for property administrators (GS–1103), establish position guidelines supplementing those of the Civil Service Commission, and provide qualification and performance standards. We consider this project of utmost importance. You may be assured that it will receive our close attention.

Under current ASPR procedures the contractor is required to establish and maintain an approved system for accounting and control of Government-owned property. We believe a specific ASPR (Appendices B and C) requirement for annual review of the contractors property accounting system is needed. The ASPR committee is considering adoption of such a requirement for both commercial and non-profit contractors. Motivation should not be in the form of an incentive or an award to accomplish a task otherwise required by the contract and sound industrial practice.

We concur that there should be additional emphasis on the audit of controls over, and utilization of, Government property in the possession of contractors. As noted in the GAO report, ASD(C) memorandum of December 27, 1966, to the Assistant Secretaries of the Military Departments (FM), the Director, Defense Contract Audit Agency, and the Comptroller, DSA, established areas of audit responsibility for both contract and internal auditors in Government property audits. Collaterally, the memorandum established procedures for assist audits as appropriate by either contract or internal auditors. This policy guidance, together with the internal audits scheduled or planned by the internal audit agencies of the Military Departments and DSA, should achieve the audit coverage contemplated by part three of the GAO recommendation.

14. *Recommendation.*—We are recommending, therefore, that the new ASPR section, which defines the duties and responsibilities of Government property administrators, incorporate a policy statement to this effect for the guidance of such officials. [Deleted.]

Comment

DOD agrees it is reasonable to expect that those accounting principles and standards applicable to Government-owned property in possession of contractors should be equivalent to those applied in normal industrial practices. The new ASPR supplement, covering the duties and responsibilities of the property administrator, will be amended to require acceptable accounting principles and standards commensurate with that of sound industrial practices. If more exacting standards than sound industrial practices are necessary, the requirement will be established by contract provision.

Separate Comment

The GAO pointed out in its report that guidelines should be included in ASPR for determining when to capitalize or expense costs incurred on Government real property in possession of Defense contractors. [Deleted.] DOD will develop necessary criteria for capitalizing or expensing costs incurred on Government real property in possession of Defense contractors for inclusion in ASPR.

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE, THE MILITARY DEPARTMENTS, AND THE OFFICE OF EMERGENCY PLANNING RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From—	To—
Department of Defense:		
Secretary of Defense: Robert S. McNamara	January 1961	Present.
Deputy Secretary of Defense:		
Paul H. Nitze	July 1967	Do.
Cyrus R. Vance	January 1964	June 1967.
Roswell L. Gilpatric	January 1961	January 1964.
Assistant Secretary of Defense (Comptroller):		
Robert N. Anthony	September 1965	Present.
Charles J. Hitch	February 1961	August 1965.
Assistant Secretary of Defense (Installations and Logistics):		
Thomas D. Morris	September 1967	Present.
Paul R. Ignatius	December 1964	June 1967.
Thomas D. Morris	January 1961	December 1964.
Deputy Comptroller for Audit Systems: K. K. Kilgore	February 1963	Present.
Department of the Army:		
Secretary of the Army:		
Stanley R. Resor	July 1965	Do.
Stephen Ailes	January 1964	July 1965.
Cyrus R. Vance	July 1962	January 1964.
Under Secretary of the Army:		
David E. McGiffert	November 1965	Present.
Stanley R. Resor	April 1965	July 1965.
Paul R. Ignatius	March 1964	December 1964.
Stephen Ailes	February 1961	January 1964.
Assistant Secretary of the Army (Installations and Logistics):		
Dr. Robert A. Brooks	October 1965	Present.
Daniel M. Luevano	July 1964	October 1965.
A. Tyler Port (acting)	March 1964	June 1964.
Paul R. Ignatius	May 1961	February 1964.
Chief of Staff:		
General Harold K. Johnson	July 1964	Present.
General Earle G. Wheeler	October 1962	June 1964.
Chief, U.S. Army Audit Agency:		
Maj. Gen. H. G. Sparrow	March 1967	Present.
Maj. Gen. P. F. Lindeman	April 1966	February 1967.
Maj. Gen. T. Sands	March 1965	February 1966.
Maj. Gen. S. Jones	April 1961	February 1965.
DEPARTMENT OF THE NAVY:		
Secretary of the Navy:		
Paul R. Ignatius	August 1967	Present.
Paul H. Nitze	November 1963	June 1967.
Under Secretary of the Navy:		
Charles F. Baird	July 1967	Present.
Robert H. B. Baldwin	July 1965	June 1967.
Kenneth E. BeLieu	February 1965	July 1965.
Paul B. Fay, Jr	February 1961	January 1965.
Assistant Secretary of the Navy (Installations and Logistics):		
Graeme C. Bannerman	February 1965	Present.
Kenneth E. BeLieu	February 1961	February 1965.
Chief of Naval Material:		
Vice Adm. Ignatius J. Galantin	March 1965	Present.
Vice Adm. William A. Schoech	July 1963	March 1965.
Auditor General:		
Capt. E. K. Auerbach	October 1965	Present.
Capt. P. Nicks	September 1965	October 1965.
Capt. C. M. Grassino	February 1965	August 1965.
Rear Adm. E. Stanley	November 1962	February 1965.
DEPARTMENT OF THE AIR FORCE:		
Secretary of the Air Force:		
Dr. Harold Brown	October 1965	Present.
Eugene M. Zuckert	January 1961	October 1965.
Under Secretary of the Air Force:		
Townsend Hoopes	October 1967	Present.
Norman S. Paul	October 1965	September 1967.
Dr. Brockway McMillan	June 1963	September 1965.
Assistant Secretary of the Air Force (Installations and Logistics) (formerly materiel): Robert H. Charles	November 1963	Present.
Chief of Staff:		
General John P. McConnell	February 1965	Present.
General Curtis E. LeMay	July 1961	January 1965.
Auditor General:		
Maj. Gen. Don Coupland	September 1964	Present.
Maj. Gen. W. W. Veal	August 1963	July 1964.
Defense Contract Audit Agency:		
Director: William B. Petty	July 1965	Present.

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE, THE MILITARY DEPARTMENTS, AND THE OFFICE OF EMERGENCY PLANNING RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT—Continued

	Tenure of office	
	From—	To—
Defense Supply Agency:		
Director:		
Lt. Gen. E. C. Hedlund, U.S. Air Force	July 1967	Do.
Vice Adm. Joseph M. Lyle, U.S. Navy	July 1964	June 1967.
Deputy Director:		
Maj. Gen. W. W. Vaughn, U.S. Army	July 1967	Present.
Maj. Gen. E. C. Hedlund, U.S. Air Force	August 1966	June 1967.
Maj. Gen. F. C. Gideon, U.S. Air Force	July 1964	July 1966.
Deputy Director for Contract Administration Services:		
Maj. Gen. John A. Goshorn, U.S. Army	August 1966	Present.
Maj. Gen. W. W. Veal, U.S. Air Force	July 1964	July 1966.
Commander, Defense Industrial Plant Equipment Center:		
Col. F. Sitler, U.S. Air Force	January 1966	Present.
Col. F. Sitler, U.S. Air Force (acting)	October 1965	January 1966.
Col. S. F. Langley, U.S. Air Force	March 1963	October 1965.
Auditor General: Burk O. Barker	December 1961	Present.
Office of Emergency Planning, Executive Office of the President:		
Director:		
Price Daniel	October 1967	Do.
Farris Bryant	March 1966	October 1967.
Franklin P. Dryden (acting)	January 1966	March 1966.
Buford Ellington	February 1965	January 1966.
Edward A. McDermott	February 1962	January 1965.

APPENDIX III

APPROXIMATE COST OF GOVERNMENT-OWNED PROPERTY AT CONTRACTORS' PLANTS INCLUDED IN OUR REVIEW AS OF REPORTING DATES IN FISCAL YEAR 1966 [1]

Principal type of contractor	Number visited	Plant cognizance	Facilities				Materials	Tooling and test equipment	Military property [4]	Total
			IPE [2]	AF heavy presses [3]	Real property and improvements	Minor and other property				
Ordnance	[5] 2	DCAS	$28,333,700	$34,030,600	$5,763,800	$1,433,100	$2,247,000	$8,567,300	$84,700	$80,460,200
Electronics	1	Army	10,720,200		3,649,200	4,034,200	([6])	20,333,700	275,700	39,013,000
	1	Navy	360,600		117,800	[7] 9,658,900	7,871,200	19,237,500		37,246,000
Aircraft engine	4	DCAS	101,160,100		1,202,400	3,396,800	16,276,200	84,105,900		206,141,400
Airframe	5	DCAS	18,055,900			548,100	5,653,400	26,293,100	2,252,100	52,802,600
	1	Air Force	33,384,100		73,416,600	[8] 23,949,000	20,554,600	[9] 185,093,900	26,549,900	362,948,100
	1	Navy	3,718,400			1,951,700	45,636,700	4,107,200		55,414,000
Heavy press	2	DCAS		74,220,800	31,488,400					105,709,200
Total, manufacturing plants	17		195,733,000	108,251,400	115,638,200	44,971,800	98,239,100	347,738,600	29,162,400	939,734,500
Nonprofit (universities)	2	ONR	[10] 4,149,600		107,800	416,600				4,674,000
Total, all contractors	19		199,882,600	108,251,400	115,746,000	45,388,400	98,239,100	347,738,600	29,162,400	944,408,500

[1] We also visited 4 contractor locations where we did not collect comparable financial data for Government-owned property in their possession. At these locations we restricted our examination to the DOD industrial equipment modernization and replacement program.

[2] Principally metalworking machine tools.

[3] Presses and support equipment under the Air Force heavy press program.

[4] Military property consists of military personal property, such as trucks, radar equipment, and aircraft.

[5] Includes 1 heavy press operator who is also an ordnance manufacturer.

[6] Not readily determinable.

[7] Primarily test vans and test chambers.

[8] Primarily scientific equipment and furniture and fixtures.

[9] Includes tooling at subcontractor locations.

[10] Includes synchrocyclotron costing $2.4 million. Remaining items at universities refer primarily to electronic test equipment, both general purpose and specialized.

APPENDIX 4(b)

REPLIES OF CONTRACTORS TO REPORT B–140389

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., January 4, 1968.

B–140389.
Hon. WILLIAM PROXMIRE,
Chairman, Joint Economic Committee,
Congress of the United States.

DEAR MR. CHAIRMAN: In our testimony before the Subcommittee on Economy in Government of the Joint Economic Committee of November 27, 1967, we summarized a report to the Congress of November 24, relating to control over Government-owned property in the possession of defense contractors. Our report presents the results of our review of the adequacy of Department of Defense policies and procedures with respect to Government-owned property being utilized by contractors. This review was made pursuant to recommendations made by the former Subcommittee on Federal Procurement and Regulations (now redesignated the Subcommittee on Economy in Government of the Joint Economic Committee) in its report of May 1966 entitled "Economic Impact of Federal Procurement."

The study included a review of Government-owned property at 21 defense contractors' plants and 2 university campuses. The contractors' locations were selected impartially from among those which available information indicated had Government property in their possession. We attempted to select contractors who had large, moderate, and small amounts of Government-owned property in their possession. We selected both large and small prime contractors and subcontractors. We also sought to select contractors engaged in a variety of defense work. On the basis of the selection made, we have no reason to believe the results of our review would have changed in any material respect had other contractors' plants been selected for examination.

As pointed out in our testimony and in the report, we did not request formal written comments from the contractors involved, although we did follow our usual procedure in all such reviews of discussing informally and orally the details of our findings with these contractors and universities. As we testified in our presentation before the Committee, the reason we did not obtain formal comments from the contractors and universities involved was that the primary objective of our review was to determine the adequacy of the Defense Department's policies and regulations, and their implementation by the military services and defense contractors.

During the course of the hearings the Committee requested and we agreed to furnish a list of the contractor plants and university campuses included in our review. The Committee agreed, however, that prior to supplying this information the views of the contractors should be obtained and made available to the Committee. By our letter dated November 29, 1967, copies of the report were made available to the contractors and universities involved with a notation of specific findings or observations relating to equipment, facilities, and material in their possession.

Our letter of November 29 requested that comments be supplied within two weeks. To date we have received formal responses from all but three of the contractors involved in our review. Copies of these responses are attached, together with a summary of reactions, grouped in accordance with the major findings and recommendations of our report. Names of individual contractors and universities asked to comment on each of these findings and recommendations are noted.

The Continental Aviation and Engineering Corporation has advised us that they would have no formal comments. In addition, we have not received formal replies from Sperry Rand Corporation, Aerojet-General Corporation, and TRW, Inc. In response to telephone inquiries made earlier this week, these companies indicated that replies are in process. Copies of these replies will be forwarded as soon as they are available.

The contractors' replies, in general, point out that they have complied with the provisions of their contracts and the regulations to the extent that they were required to do so. In those cases where the contractors disagree with our factual findings, a further analysis of the facts will be made and your Committee will be appropriately advised.

The Committee's attention is called to the following statement in our testimony of November 27, summarizing the views of the Department of Defense as follows:

"The Secretary of Defense was, for the most part, receptive to our suggestions. However, full concurrence was not expressed by the Department of Defense with respect to:

"1. Requiring contractors to furnish machine-by-machine utilization data and to obtain prior Office of Emergency Planning approval on an item-by-item basis for the commercial use of industrial plant equipment.

"2. Strengthening the controls over special tooling and special test equipment through the use of financial accounting controls.

"We believe that implementation of these proposals or other acceptable alternatives is necessary to effectively administer this property. The Armed Services Procurement Regulation Committee has several alternative proposals under consideration which are directed to the same problem. We will evaluate and make recommendations to the Department on these proposals as they are submitted to us for comment."

We will be glad to furnish any further information in connection with this matter that you may require. As we advised you earlier, we are making follow-up studies of the Government's controls over Government-owned facilities and equipment. These studies should provide information with respect to further corrective action required.

Sincerely yours,

(Signed) ELMER B. STAATS,
Comptroller General of the United States.

NOTE

An asterisk before the contractor's name indicates a written reply had not been received as of January 4, 1968, to the General Accounting Office letter of November 29, 1967, forwarding a copy of their report on "Need for Improvements in Controls Over Government-Owned Property in Contractors' Plants—Department of Defense (B–140389, Nov. 24, 1967)" and requesting comments.

UTILIZATION

The General Accounting Office has questioned the retention of 328 machines costing $15.9 million at the plants of 12 defense contractors due to their limited usage or their extensive use on commercial work. In addition, quantities of general purpose test equipment not in use were identified at two contractors' plants. This equipment had not been reported for reallocation elsewhere due to inadequacies in Department of Defense regulations and procedures.

In cases where commercial use exceeded 25 percent of the total machine use, the DOD was not requiring contractors to obtain the prior approvals from the Office of Emergency Planning (OEP). Such approvals by existing regulations are required, primarily to preclude contractors from obtaining a favored competitive advantage through leasing Government-owned production equipment.

The GAO concluded that in order for the DOD to properly administer its huge inventory of production equipment at plants across the country, contractors should be required to maintain utilization data for each of the machines above some established dollar level to identify the extent and manner of their use and to provide DOD officials a basis upon which to question its retention and reallocate the equipment if it is needed elsewhere. A screening of 296 of the 328 items questioned for existing need of other locations disclosed 47 instances where the equipment was, in the judgment of DOD technical personnel, suitable to fill equipment requisitions received by the Defense Industrial Plant Equipment Center, but redistribution action was not being taken.

The GAO further concluded that prior approvals should be obtained for commercial use of the equipment not only to satisfy OEP objectives but also to provide DOD with a comprehensive view of the extent to which Government-furnished equipment, by types, are being applied to private commercial purposes. The administration of such approvals was advocated by the General Accounting Office on a machine-by-machine basis. As the program is presently administered, DOD lacks adequate assurance that the most efficient machines are used to process Government work, hence minimizing procurement costs.

In responding to GAO proposals contractors pointed out that they had been abiding by the terms of facility management contracts negotiated with the services and with instructions in the DOD regulations. In several cases there was a reluctance to accept GAO proposals and declare the equipment excess due to possible future needs, including stated mobilization reserves. On the other hand, some contractors agreed with the GAO and pointed to additional quantities of machines they had declared excess after GAO had completed its review. With regard to use of the equipment for private commercial purposes, the contractors again stated that such use was permitted by the terms of facility management contracts.

The following contractors were included in the above findings:

FMC Corporation, Northern Ordnance Division
Menasco Manufacturing Company, Texas Division
Selb Manufacturing Company
Raytheon Company, Missile Systems Division
Sikorsky Aircraft Division, United Aircraft Corporation
Beech Aircraft Corporation
*Sperry Gyroscope Company, Division of Sperry Rand Corporation
The Boeing Company, Wichita Division
Curtiss-Wright Corporation, Wright Aeronautical Division
*TRW, Inc.
Rohr Corporation
Harvey Aluminum (Incorporated)
Kelsey-Hayes Company, Heintz Division
Kaiser Aluminum & Chemical Corporation

MODERNIZATION OF GOVERNMENT-OWNED INDUSTRIAL PLANT EQUIPMENT

Department of Defense Directive 4275.5 states as general policy that "Basically the contractor will be encouraged to replace old, inefficient Government-owned equipment or manufacturing processes with modern more efficient, privately owned equipment." The program for modernization and replacement of Government-owned Industrial Plant Equipment, as presently administered, will perpetuate the large Government investment in general purpose machine tools in possession of contractors and thus defer indefinitely the time when contractors must furnish all facilities, in accordance with the basic policy of the Department of Defense, required for performance of Government contracts. About $4 billion of Government-owned industrial plant equipment is in possession of contractors.

The General Accounting Office proposed that, in consonance with the foregoing conclusions, the Department place concentrated effort on the revision and administration of the following aspects of its industrial facility modernization and replacement program.

1. Inclusion in procedures of a requirement for the specific consideration of, and a statement as to, the contractor's ability or willingness to privately finance modernization proposals.

2. Consideration of a revision of guidelines to make the provision of Government-furnished plant equipment more directly related to new, major defense programs.

3. Improvement in the validity and review of justification and actual experience data, with particular attention to the commercial use of Government-furnished equipment.

4. A reexamination of the principle of recovery of savings attributable to the program through repricing of incentive-type contracts and subcontracts.

Contractor comments received have expressed no disagreement with these principles, however, a number of contractors pointed out that they have made substantially private investments in plant equipment.

*Aerojet-General Corporation
The Bendix Corporation
The Boeing Company
Continental Aviation and Engineering Corporation
FMC Corporation, Northern Ordnance Division
Menasco Manufacturing Company, Texas Division
Sikorsky Aircraft Division, United Aircraft Corporation
*TRW, Inc.

RENTAL OF INDUSTRIAL PLANT EQUIPMENT

Uniform rental rates are prescribed by regulation where Government-owned machines are used by contractors other than on Government contracts.

The regulations, however, allow considerable latitude as to the basis contractors can use in applying the rental rates and contracts in effect did not in all cases incorporate the ASPR guidance which existed. The absence of a standard procedure for computing rentals has resulted in the Government sometimes receiving reduced rent payments, and in some contractors paying lower rental than other contractors for the same type of equipment.

The GAO believes that the determination of rent on a machine-by-machine basis would be more accurate and more equitable than the various methods presently in use. The maintenance of utilization data for Government-owned industrial plant equipment, previously referred to, would permit the computation of rent on an item-by-item basis. Also, in some cases contractors have been using Government-owned industrial plant equipment in their commercial operations without obtaining the advance Government approval required by their facilities contracts.

Regarding the advance approval for commercial use, two contractors stated their intent to conform to the contract requirements in the future. Only one contractor took strong exception to the machine-by-machine rental formula.

The following contractors were included in the above findings:

Beech Aircraft Corporation
Blades Manufacturing Corporation
Curtiss-Wright Corporation
FMC Corporation
Harvey Aluminum (Incorporated)
Heintz Division of Kelsey-Hayes Company
Menasco
Rohr Corporation
Selb Manufacturing Company
*TRW, Inc.
United Aircraft Corporation

HEAVY PRESSES

Rent for the use of Government-owned heavy presses has generally been charged for both Government and commercial work at the rate of 4 percent of sales. Rental income to the Government during a recent 12-month period represented returns on the Government's investment ranging from 1.03 to 2.03 percent. In comparison with current rates of returns on Government bonds and commercial paper, this anual rate of returns appears to be too low from a financial point of view.

Several of the contractors involved pointed out that a return on investment was not the substantial or controlling factor in the financing and establishing of these facilities, but rather, the purpose was to insure a production capability. They further pointed out that, in their opinion, the overall savings to the Government in the cost of the products being produced have given the Government a much more significant return on its investment than the same investment would have produced in bonds or commercial paper.

The General Accounting Office believes that an equitable solution to this problem would be to authorize rent-free use of the presses for Government work, and to increase the rental for commercial use of the equipment, commensurate with its value.

The following contractors were included in this finding:

Harvey Aluminum (Incorporated)
Kaiser Aluminum and Chemical Corporation
Wyman-Gordon Company

TRANSPORTATION AND INSTALLATION COSTS

At some contractor locations the cost of installation and/or transportation associated with the acquisition of IPE was not identified and recorded as prescribed by the accounting principles and standards of the Comptroller General and the records did not meet the requirement of ASPR which provides that, for rental computations, the cost of facilities shall include the cost of transportation

and installation. It was found that these costs had, in some cases, been computed as a percentage factor of the acquisition cost of IPE being rented by contractors. One contractor added a factor of 3.5 percent, another contractor added a factor of 1 percent. At another contractor location where these costs had not been recorded, rent was computed without the addition of a factor for these costs.

Contractors agreed that the rental base should include transportation costs, but contended that appropriate factor for transportation can be determined statistically.

It is the General Accounting Office position that actual transportation costs should be recorded, not only for rental purposes, but also to provide reliable cost experience data for property management decisions involving economic considerations such as acquisitions, redistributions and disposals of these assets.

The following contractors were included in the above finding:

FMC Corporation, Northern Ordnance Division
Harvey Aluminum (Incorporated)
Menasco Manufacturing Company, Texas Division

SPECIAL TOOLING AND SPECIAL TEST EQUIPMENT

Special tooling and special test equipment in the possession of contractors represent a significant investment by the Government. The estimated cost of this class of property at the contractors' plants the General Accounting Office visited amounted to more than $347 million, or over one third of the cost of Government property in the possession of those contractors.

In addition, as of February 1965, Air Force reviews of tooling at contractor plants disclosed that items classified as special tooling included over 72,000 items valued at about $84 million, which were facility-type or general-purpose items. Much of this property is adaptable to commercial purposes.

The General Accounting Office found weaknesses in the control of this property due to deficiencies in inventory practices, absence of financial controls, and absence of a requirement for surveillance by Government property administrators of special tooling in possession of subcontractors. Also, in some instances, Government-owned tooling was not identifiable by physical markings or in property records.

One contractor agreed that annual inventories of special tooling and test equipment have not been taken but stated that they would be taken in the future. One contractor indicated that the danger of loss is small due to adequate plant security even if inventories were not properly taken. The contractor agreed that some special tooling was not properly marked but did not consider this a significant lack of controls since the tooling allegedly could be identified by reference to drawings. The contractor also considered the reported instances of improper inventories to be minor in nature.

The GAO proposes that the Department of Defense establish a study project to determine the procedures to be used and the point in the contracting process at which financial control of special tooling should be maintained. It believes that measures of control over this property should be at least equal to generally accepted principles and standards applied in normal industrial practices. The GAO proposes also that periodic examinations of special tooling be made for purposes of identification and reclassification as general purpose plant equipment, where appropriate.

The following contractors were included in this finding:

Kelsey Hayes Company, Heintz Division
Raytheon Company, Missile Systems Division
FMC Corp., Northern Ordnance Division
Sikorsky Aircraft Division, United Aircraft Corp.
*Sperry Gyroscope Company, Division of Sperry Rand Corp.
Curtiss-Wright Corp., Wright Aeronautical Division
*TRW, Inc.
Menasco Manufacturing Company, Texas Division
The Boeing Company, Wichita Division

MATERIAL

GAO reported that the accounting systems employed by the contractors examined did not provide for financial control and acceptable physical inventories of Government-owned material. The weaknesses were attributed to indefinite

instructions in the Department of Defense regulation, deficient physical inventory taken by the contractors, and departure from good property management practices. Generally, the physical protection and security procedures provided by contractors appeared adequate.

In commenting on the report, contractors stated that they were complying with current Defense regulations for accounting for Government-owned materials. They believed that monetary accounting controls were not necessary to ensure more accurate accountability and would increase the costs to the contractor and the Government. They considered their physical inventory procedures to be adequate for maintaining controls over Government-owned materials.

GAO believes that financial or monetary controls are desirable to provide a reasonable measure of assurance that detailed records reflect all transactions affecting Government-owned materials. GAO recommended that the regulations be amended to require financial accounting controls for such materials at least equivalant to the generally acceptable accounting principles and standards applied in normal industrial practices, appropriate to the circumstances. GAO also proposed that regulations be strengthened by providing for improved inventory procedures.

The following contractors were included in this finding:

Beech Aircraft Corp.
Curtiss-Wright Corp.
FMC Corp., Northern Ordnance Division
*Sperry Gyroscope Company, Division of Sperry Rand Corp.
Raytheon Company, Missile Systems Division
Sikorsky Aircraft Division, United Aircraft Corp.
*TRW, Inc.

NONPROFIT INSTITUTIONS

Financial control accounts were not required by the Armed Services Procurement Regulation to be maintained by nonprofit institutions, including universities, for items of industrial plant equipment and special test equipment, nor were they maintained by the universities visited by the General Accounting Office. Also, periodic inventories were not required by the Regulation, nor were they taken by the universities, even though research contracts frequently are in process for several years. When inventories were taken, the procedures employed did not provide necessary internal control. Further, the requirements of the regulation were not being adhered to with regard to control of the property by the Defense Industrial Plant Equipment Center, in that Industrial Plant Equipment was purchased without screening Government inventories, plant equipment on hand was not always reported to the Center, and certain plant equipment which was in critical short supply was donated to the universities without first screening Government inventories to determine needs elsewhere in Government.

The universities involved in the General Accounting Office review generally agreed with its findings except that one university maintained that its method of financial control was adequate. They indicated that procedures have been revised to ensure compliance with the Department of Defense regulation.

The following Universities were included in the above finding:

The University of Chicago
University of Maryland

Property Management Functions in the DOD

The General Accounting Office reported that the value of the approval process of contractor Government property accounting systems by Government officials was questionable because the Government did not insist that the contractor maintain an adequate system, and contractor systems were allowed to continue in an approved status even though significant weaknesses existed. The General Accounting Office also reported that the Department of Defense internal auditors had performed relatively few reviews of the effectiveness of property administration at contractors' plants.

Generally, contractors did not comment on the issues raised in this section because they deal with matters relating to the effectiveness of Department of Defense property management. It appears, however, from the contractor replies, that necessary action on three contractor property accounting systems were

taken to obtain approval subsequent to the review performed by the General Accounting Office.

The following contractors were included in the above finding:

Beech Aircraft Corporation
Blades Manufacturing Corporation
Curtiss-Wright Corporation, Wright Aeronautical Division
FMC Corporation, Northern Ordnance Division
Harvey Aluminum (Incorporated)
Holley Carburetor Company
Kaiser Aluminum (Incorporated)
Kelsey-Hayes Company, Heintz Division
Menasco Manufacturing Company, Texas Division
Raytheon Company, Missile Systems Division
Rohr Corporation
Selb Manufacturing Company
Sikorsky Aircraft Division, United Aircraft Corporation
*Sperry Gyroscope Company, Division of Sperry Rand Corporation
The Boeing Company, Wichita Division
*TRW, Inc.
University of Chicago
University of Maryland
Wyman-Gordon Company

CURTISS-WRIGHT CORP.,
Wood-Ridge, N.J., January 4, 1967.

(Attention: Mr. C. M. Bailey, Deputy Director).

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

Dear MR. BAILEY: Mr. Berner has referred to me for reply your letter of November 29th which enclosed a copy of Comptroller General Report B-140389 entitled "Need for Improvements in Controls Over Government Owned Property in Contractors' Plants".

As noted in your transmittal letter to the Congress, representatives of your office have already discussed the details of your findings with the contractors involved, and we provided comments at that time. We believe we supplied full explanations to all questions, and to the best of our knowledge, no conditions were indicated where this contractor did not fulfill all of its obligations.

To appreciate fully the government-property situation at Curtiss-Wright, it should be pointed out that the bulk of the property (including special tooling) was acquired in two major time periods, i.e. 15 years ago for the Korean Conflict and over 20 years ago for modernization, at which time we were a major engine producer for the military. It has been used since then to produce, among other products, approximately 2.4 billion dollars worth of military engines and spare parts. For many years we have not produced engines in quantity and, at present, are in essence the sole source for Reciprocating and J-65 engine spares and parts, and therefore are maintaining a capability for the production of items nearing the end of the product life cycle. In maintaining the capability to produce on a forward basis those parts on a when needed basis, we find poorer utilization, excessive rent costs to Curtiss-Wright, and the inability to surplus equipment without eliminating the Military's sole source for parts. With your indulgence, we wish to enumerate certain specific events of the past few years to exhibit the property administration problems we encounter:

In 1964–1965, a $500,000 machine shop line for the production of compressor rotor blades for jet engines was 100% idle for eight consecutive months and no orders were received for a period of two years. Curtiss-Wright was criticized for retaining this equipment despite the fact that the procurement office (SAAMA) projected future needs for at least five more years. In 1966 this sole source capability line alone produced 37% of the total J-65 blade volume and in addition, was upgraded from stainless steel to Inco 700 material.

Had we simply followed the surplus route, Curtiss-Wright may have been subjected to severe criticism for being unable to support the spares requirements for Curtiss-Wright engines still active in the military inventory.

In Wood-Ridge, about one-half of the government equipment furnished 15 to 20 years ago is represented by Test Cells and support equipment constituting heat treat, paint and plate, tool room equipment, cutter grinders and the like; which,

although very costly initially, have less salvage value than the cost of removal and just cannot be feasibly identified as to usage hours, part members, quantity and further, these are not production operations and therefore have no operation numbers. The same is true at Buffalo with the further addition of the die room. We further question the application of normal use criteria to the one of a kind machine tool needed in the production of a sole source item; nor can management just arbitrarily subcontract union operations in today's labor relations environment in order to divest itself of a given machine tool. The procedure requested for utilization surveys, therefore, must recognize these special situations which, under the proposals, are not being recognized. Further, the definition of usage is limited to the time spent in the actual cutting of chips. Set-up, repair and maintenance and other downtime essentials have been excluded from the definition of "usage hours".

Let us turn to the problem of rent and the inequity to the contractor. Because of the peculiar application of the rental formula, the rent costs to Curtiss-Wright increases whenever:

1. We acquire modern government furnished equipment for exclusive use on rent free (government) sales.
2. We acquire company owned equipment exclusively for commercial production.
3. We expand commercial sales volumes without added equipment.
4. Government sales decline with no change in commercial volume.

As now structured, the rent formulae charges rent on the basis of the percentage of hours used on commercial sales to total hours used instead of to the total hours available which includes the maintenance of the capability. As you know, the sales volume has declined drastically (at Wood-Ridge from $356 million in 1953 to $101 million in 1956). As a result, the decline in hours used for military purposes increases the rent to the commercial sales base. In addition, Curtiss-Wright has appropriated $25 million of its own funds for new equipment in 1967, which will further increase the already excessive rent costs.

As you will observe, we are extremely aware of property administration and have conscientiously sought ways and means of minimizing costs relating to a declining product line.

With this background, which unfortunately was not part of the GAO report, we will now comment on those items pertaining to Curtiss-Wright specifically:

1. Pages 13–26 of 133 items retained. The nature of our forward capability and the compressor rotor blade line cited above should explain our position relative to retention of equipment.

2. Page 29. On inclusion of engineering labor hours in rent free base. As previously stated, Curtiss-Wright, Wood-Ridge, in accordance with negotiations with the ACO, uses the total labor content of total cost of sales and this is segregated as between contracts with the rent free clause and all others. The percentage of rent free labor to total labor is the basis for the credit.

3. Page 50. Inventory of Government-owned tooling. It is not the practice of business generally to inventory tooling nor was there any requirement to do so for government tooling under those contracts. This tooling produces only those parts for which designed and are worthless for any other purpose, and by virtue of the fact that we continue to produce these parts, we must therefore have tools. Tooling, especially after 15 years, is subject to wear, tear, scrap, breakage, and modification; furthermore Curtiss-Wright has expended the initial cost and more than the total present value for the replacement of this tooling as required during this period.

4. Pages 56 and 57. Accounting and control of Government furnished material. When called to our attention in the fall of 1966, the company took immediate steps to correct this deficiency which involved Overhaul contracts amounting to less than 3% of our total volume. We recognize the need for improved physical controls and have responded accordingly. The contractor does not agree with the proposal to institute financial accounting for these items as it does not result in control, the real control being the physical accountability of material.

5. Page 64. Withholding of property administration system approval. At that time the disapproval of the entire property system of the contractor resulted from the deficiencies in the Overhaul area discussed above. As stated above, the contractor took immediate steps to correct the deficiencies without the need to have ASPR provide additional incentives to do so. Further, the contractor prefers an environment whereby a specific area disapproval would be possible rather than a total property disapproval.

As you may surmise from this lengthy response, Curtiss-Wright management recognizes its contractual responsibilities and, in our opinion, has transcended its obligations to protect the government interest in the area of military requirements. We are conscious of the need to maintain a capability to satisfy the requirements of our military customer at an optimum cost. We sincerely hope that this letter provides you with insights as to our relationship and respectfully invite further discussions as you may deem necessary.

Very truly yours,

H. C. GIESLER,
Corporate Controller.

FMC CORP.,
NORTHERN ORDNANCE DIVISION,
Minneapolis, Minn., December 22, 1967.

Mr. E. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office, Washington, D.C.

DEAR MR. BAILEY: Mr. Jack Pope, President of FMC Corporation, has asked me to reply to your letter of 29 November 1967 since we concluded it pertained entirely to the Northern Ordnance Division of FMC, and since I am fully familiar with the pertinent facts.

Your letter requested our comments on portions of your report of 24 November 1967 to the Congress on the need for the Department of Defense to improve its controls over Government-owned property in contractors' plants. As indicated above, the marginal notations on the copy of the report you have furnished us are understood to apply to the Northern Ordnance Division operations in Fridley, Minnesota. Northern Ordnance is the operator of a combined facility which includes both Government- and contractor-owned buildings and equipment. The Government-owned portion is designated as the Naval Industrial Reserve Ordnance Plant, Minneapolis, which is one of several Government-owned contractor-operated plants maintained under the provisions of the National Industrial Reserve Act of 1948. That Act, in its declaration of national policy states:

". . . it is the intent of Congress to provide a comprehensive and continuous program for the future safety and for the defense of the United States by providing adequate measures whereby an essential nucleus of Government-owned industrial plants and a national reserve of machine tools and industrial manufacturing equipment may be assured for immediate use to supply the needs of the armed forces in time of national emergency or in anticipation thereof; . . ."

The NIROP facility operated by Northern Ordnance has unique capabilities which the Navy has deemed essential to maintain for mobilization purposes in accordance with the National Industrial Reserve Act. Thus any realistic review of equipment availability and usage at the NIROP should take into account the standby mobilization role which the plant serves. It seems to us that your report does not give adequate, if indeed any, consideration to mobilization base requirements.

In any event, we respectfully submit that your comments are not properly applicable to Northern Ordnance when all of the pertinent facts are considered. We, of course, cannot comment on the compliance with DoD policies and procedures of the other companies or non-profit institutions to which your report refers.

We wish to point out that Northern Ordnance has been complying with all the terms of its Government contracts, including the facilities management contract under which we operate the Naval Industrial Reserve Ordnance Plan, Minneapolis. It is our understanding from conversations between your representatives and ours during the survey at Northern Ordnance and also from your report to Congress that your representatives recognize this.

We believe that upon review of the attached material commenting on the items in your report which you indicate are applicable to Northern Ordnance, you will find that the comments in your report concerning Northern Ordnance in major part were, in proper context, either misleading or factually incorrect. In our opinion the matters you have raised in your report fail to disclose any significant actions on the part of Northern Ordnance that are not in accordance with the Armed Services Procurement Regulations, that do not conform with sound industrial practices, or that are inimical to the best interests of the Government.

We do appreciate this opportunity to set the record straight on these matters. We would be able to do this even more fully, we believe, if the GAO were to fur-

nish us with sufficient details identifying the equipment involved, as noted in our detailed comments. We recognize very clearly our obligations to maintain, protect and control Government-owned property entrusted to our use. We pledge ourselves to continue to employ every possible means to justify this trust.

Sincerely,

H. RANDOLPH,
Vice President and General Manager.

COMMENTS ON APPLICABLE PORTIONS OF COMPTROLLER GENERAL OF THE UNITED STATES REPORT TO THE CONGRESS B–140389, NEED FOR IMPROVEMENTS IN CONTROLS OVER GOVERNMENT-OWNED PROPERTY IN CONTRACTOR'S PLANTS

The first five comments by the General Accounting Office which have been marked as being applicable to Northern Ordnance Division, FMC Corporation (see pages 5 through 8) relate to the usage of Government-owned facilities. These comments which are specifically quoted in the following pages state generally that certain Government-owned facilities were not used at all or were used very little during the period involved in the General Accounting Office study, and certain other Government-owned facilities were used in performance of commercial work. The following general comments are pertinent in connection with the usage of such Government-owned facilities by the Northern Ordnance Division:

A. The study made by the General Accounting Office involved a twelve month period ending 31 March 1966. The period selected for the study happened to reflect the contractor's lowest plant workload since immediately after the cessation of World War II in the years 1946 and 1947. As evidence of the contractor's extreme drop in workload during this period, the contractor expended 1,528,678 direct manufacturing labor hours in performance of all work at the Naval Industrial Reserve Ordnance Plant during the calendar year 1965. During the calendar year 1967, the contractor expended approximately 3,015,000 hours of direct manufacturing labor in performance of all such work. During the calendar year 1962, the contractor expended 2,958,323 direct labor manufacturing hours on all such work. Accordingly, the workload during the calendar years 1962 and 1967, both before and after the period involved in the study, was almost double the workload in the period involved in the General Accounting Office study (1965), which was the low point in workload, and thus not representative.

B. The Government-owned facilities which are operated by the Northern Ordnance Division, FMC Corporation at Fridley, Minnesota have been designated as the Naval Industrial Reserve Ordnance Plant, Minneapolis (NIROP, Minneapolis). This is a Government-owned contractor-operated industrial plant intended in part to support the needs of the Armed Forces in time of national emergency. The plant is maintained under the provisions of Public Law No. 883, known as the National Industrial Reserve Act of 1948, by which Congress attempted to establish a nucleus of Government-owned industrial facilities which would reduce to an absolute minimum the lead time required to get the materials and weapons of war into the hands of the combat forces. The purpose of these plants is to fill the gaps resulting from known deficiencies in privately-owned capacity. The mobilization capacity of the NIROP, Minneapolis under certain circumstances may be at least twice its present output. The plant is unique because of the breadth of its capacity, the extent to which its production is integrated, and its long operation in conjunction with Northern Ordnance's outstanding and highly experienced engineering department. There is no other comparable plant with these characteristics run by private industry available to the U.S. Navy for production of intermediate and major caliber gun mounts and guided missile launching systems for the Navy. The only other facility with comparable manufacturing capabilities is a Government-owned and operated plant which by itself could not meet full mobilization needs.

Since part of the capacity of the Government-owned facilities at the NIROP, Minneapolis is being maintained for mobilization purposes it is recognized that certain individual facilities may not be fully utilized during any peacetime period. The alternative suggested by the GAO would be to dispose of these facilities which would render it impossible for this activity to support the existing and contemplated mobilization plans of the Department of Defense. We doubt whether this action would be consistent with the Congressional intent as expressed in the enactment of the National Industrial Reserve Act. The General Accounting Office Report B–140389 fails to recognize the Congressional

mandate emphasizing the importance to the national defense of maintaining industrial reserve production capacity for mobilization purposes in times of national emergency.

C. The Government has contracted with Northern Ordnance for the maintenance of the NIROP plant. Under the contract, if the plant should be wholly on Government business, the Government would bear the full cost of fixed overhead. To the extent that commercial work is performed in the plant, the Government is relieved of a pro rata portion of the fixed overhead. In order to reduce the cost to the Government for the maintenance of the Government facilities during the low plant workload period referred to above, the contractor was encouraged by the Government's representatives to expand its commercial work in an effort to spread the cost of maintenance of Government-owned facilities over a larger base. At no time did the amount of commercial work (non-Government) performed on Government-owned facilities exceed 25 percent of all work performed on such facilities during any one-year period. The provisions of the Armed Services Procurement Regulations and the provisions of the contractor's Facilities Management Contract NOw 6204–u do not require the application of a 25 percent non-Government use limitation on a machine-by-machine basis, as suggested by the General Accounting Office, and the contractor has operated in accordance with the terms of its Facilities Management contract. The volume of non-Federal Government work on Government-owned facilities at NIROP, Minneapolis is less than 11 percent of the total work output at the present time.

D. The commercial work undertaken by Northern Ordnance also permitted Northern Ordnance to retain a substantial portion of its highly skilled work force during the low-volume periods of Government work. This has proved to be of major benefit to the Government as its requirements sharply escalated in the last year.

E. The plant operated by Northern Ordnance includes both buildings and equipment owned by FMC Corporation and by the Government. The Government-owned portion of these combined facilities are designated as the NIROP, Minneapolis. The Government- and contractor-owned manufacturing equipment is commingled throughout the plant in order to achieve the most efficient production possible. In order to achieve efficient scheduling of work, all machines are used as available without a concerted attempt by the contractor to perform Government work exclusively on Government-owned machines and commercial work exclusively on contractor-owned machines. Accordingly some of the contractor owned facilities may at a given time be working completely on Government work which could under ordinary circumstances necessitate use of Government-owned machines on commercial work. Moreover, while it is practicable to obtain, after the fact, machine-by-machine data on usage, it is not practicable precisely to schedule in advance machine loadings to control the portion of non-Government work on any individual machine to assure that usage does not exceed 25 percent.

F. A statement is made in the GAO report that DIPEC was unable to fill requisitions for 81 items of IPE which were in either critical or short supply. When we first heard of this situation earlier this year, we asked the GAO officials performing the audit to identify whether any of the 81 critical or short supply items were located at the NIROP, Minneapolis. If there had been any we would have discussed with DOD officials the desirability of removing the items from this reserve plant to satisfy the alleged urgent requirement. We were very puzzled that the GAO officials declined either to confirm or deny that any of these items were located at the NIROP, Minneapolis.

The specific comments which follow set forth Northern Ordnance's position with respect to each of the items appearing in GAO Report B–140389 that were identified by marginal notation as being applicable to Northern Ordnance. The first five below have been responded to above in terms of general policy and on these we simply will add a few applicable details.

1. IPE not in use

"We questioned retention of 133 items of IPE, estimated to cost $3.3 million, which had not been in use for extended periods of time." (page 13)

(GAO indicates 4 of the 133 items questioned apply to Northern Ordnance.)

Comment: Unfortunately the GAO has not specifically identified the 4 items questioned either in discussions at Northern Ordnance or in its report so it is impossible for us to furnish comments concerning these items. To the best of our knowledge, all facilities at Northern Ordnance are either in use, needed for mobilization or scheduled for disposition.

2. IPE used for commercial work

"From the available utilization records, we determined that 115 items of IPE, estimated to have cost $11.4 million and located principally at four contractor locations, were being used solely or predominantly for commercial work. In this characterization we included IPE used for commercial work 75 percent or more of actual production time during periods ranging from 6 months to 1 year at three locations." (page 14)

(GAO indicates 22 of 115 items questioned apply to Northern Ordnance.)

Comment: As in the case of comment No. 1, the GAO has not identified the specific items questioned. As already outlined above, this contractor does make use of Government-owned facilities for commercial work from time to time in strict accordance with the terms of its facility management contract, and such usage over-all is under 25 percent per year. Commercial work is performed on Government-owned equipment primarily to stabilize the manufacturing workload at this activity which objective has been consistently encouraged by the Department of Defense. Rent for the use of Government-owned equipment for commercial work is being paid in accordance with the Armed Services Procurement Regulations. Furthermore, the commercial work performed at this plant has contributed significantly (1) to the reduction of the cost of Government work through absorption of the fixed portion of plant manufacturing overhead, and (2) in preserving the contractor's skilled work force for performance of Government contracts.

3. IPE used for commercial work

"At three locations Government property officials had not questioned retention of this IPE. Facilities contracts at these locations permitted use of the IPE for commercial work; and, in the cases where this was observed, it was apparently considered that the IPE was used for authorized purposes." (page 14)

Comment: The report is correct in that Government property officials did not question the retention of IPE used periodically for commercial work since this use was in strict accordance with our facilities management contract and for purposes encouraged by the Government.

4. Low utilization of IPE

"These data enabled us to question the basis for retention of 76 items of IPE, estimated to cost $1.2 million, which did not satisfy the criteria specified by the Assistant Secretary of Defense as we interpreted it. None of this equipment had been reported as excess by the contractor." (page 14)

(GAO indicates 15 of the 76 items questioned apply to Northern Ordnance.)

Comment: Again we are not able to specifically identify the 15 items questioned by the GAO. During the course of GAO investigations at Northern Ordnance, we did provide written justification to the GAO representatives for the retention of some 41 items questioned. The GAO did not furnish us with any response to this justification. It is significant, as we noted previously, that the twelve month period of utilization selected by the GAO representatives in their study represents the period of lowest workload at the NIROP, Minneapolis since immediately after World War II. It was pointed out in prior correspondence with the GAO that a sharply increased level of activity at this plant for production of military equipment for the Government was expected. This sharp increase has now taken place and has had its predicted effect on the utilization of equipment at the NIROP, Minneapolis.

5. Prior approval not obtained although prescribed for use of IPE for non-Government purposes

"In four cases facilities contracts were silent or unclear as to the requirement to obtain OEP prior approval, and Government officials had not sought OEP approval even though items of IPE were being used in excess of 25 percent of actual production time for commercial work. For example, a facilities contract negotiated by the Navy required the contractor to use IPE for at least 75 percent of the yearly total of authorized hours for Government production and it was silent as to conditions that might require OEP approval for other uses." (page 18)

Comment: The facilities management contract held by Northern Ordnance limits the commercial use of all the Government-owned facilities covered by this contract to 25 percent of the total actual production time for all the Government-owned facilities. It has not yet been necessary to secure OEP approval since at

no time has the use of the Government-owned facilities for commercial work exceeded 25 percent. The GAO position that this 25 percent limitation should apply on a machine-by-machine basis would impose an overwhelming and exceedingly expensive burden on both the Government and the contractor and would not be consistent with the objectives sought to be achieved. It is understood that our position in this matter is supported by the cognizant component of the Department of Defense.

6. Improper use of Government-owned IPE

"In another instance the Navy furnished a contractor an automatic turret lathe costing $45,600 on the basis of the contractor's projected initial year saving of $25,800 in operating costs. We noted that during the first year the new lathe, without advance OEP approval, was used 513 hours, or 24 percent of the actual production time, on Government rent-free work and chiefly for commercial work the rest of the time. Thus the Government did not receive the benefit of most of the saving in operating costs. At the same time, Government rent-free work totaling 5,756 hours was processed on five older, less efficient turret lathes." (page 19)

Comment: Subsequent to the period of study by the GAO from which their conclusions were drawn, the machine has been used for Government work at a rate which should yield a return on investment to the Government considerably *greater* than that anticipated when the machine was requested. This was essentially the workload we anticipated which led to the acquisition of this machine. We strongly dispute the idea that the use of the new automatic chucking turret lathe in the period referred to by the GAO was in any way improper or not in accordance with our facilities management contract. The projected savings were based on an anticipated workload (which subsequently materialized) rather than the workload actually existing at the time the lathe was acquired. When this machine was installed, there was not sufficient Government work for the full use of this new equipment. The implications in the sentence "At the same time, Government rent-free work totaling 5,756 hours was processed on five older, less efficient turret lathes," are misleading since the work performed on the older machines consisted of short runs and was not suitable for production on an automatic chucking lathe which is designed for production quantity runs.

7. Agency comments and our evaluation

"Our review established that, of the 17 contractors examined, only five contractors maintained adequately comprehensive machine-by-machine utilization data. Two of the five contractors accumulated the data by manual postings and the other three through mechanized procedures (tab card system). One of the contractors was converting from mechanized procedures to an electronic data collection system designed for manufacturing industries." (page 22)

Comment: We are gratified to have been singled out as the one contractor of the 17 examined with the most advanced system of electronic data collection enabling us to maintain comprehensive machine-by-machine utilization data and to provide excellent control over the use of Government property in our possession.

8. Rental of industrial plant equipment—general current lease terms permit inequities

"At another location, the contractor computed the rent credit on the basis of the average utilization of the machines used for Government work. The inclusion of certain downward adjustments, because it was considered a reserve plant, and the use of an average ratio of machine utilization in the calculation resulted in a lower rent liability than would have resulted from calculating rent on a machine-by-machine basis. On the basis of machine usage for a 10–week period, we estimate that a machine-by-machine calculation would have increased the rent payment for the 12 months ended September 30, 1966, from $226,400 to $809,000 or $582,600 in excess of the present method. The cost of maintaining utilization records, machine-by-machine, amounted to $7,400, as estimated by this contractor, and the details of this estimate are shown on page 23 of this report." (page 28)

Comment: The provisions of our facilities management contract that permits an adjustment in the rent paid to the Government for the use of Government facilities because the NIROP, Minneapolis is maintained for industrial reserve purposes is proper and in accordance with the provisions of ASPR. The GAO calculation which demonstrates a theoretical increase in the rent does not result

so much on the machine-by-machine calculation as from the elimination of the adjustment which recognizes the mobilization function of this plant. This adjustment reflects the fact that while ASPR rentals normally are set on the basis of machine availability for use, this does not apply where machines are maintained for mobilization as well as production purposes. Section 13-404 of ASPR provides that in such circumstances, since the availability is largely for mobilization, not production purposes (i.e., for the Government's, not the contractor's benefit), rentals should be tied to authorized or actual use rather than availability. Elimination of this adjustment would result in rental charges which would be exorbitant by almost any standard of judgment—and unrealistic, as well, for the net consequence would be the emasculation of the mobilization reserve. If this adjustment were eliminated, Northern Ordance—and any other contractor so situated—would request the Department of Defense to remove the facilities maintained for mobilization from this plant which would defeat the concept of maintaining a national industrial mobilization base at this location. It is additionally noted that a change in the method of calculating rent payments would not result in increase in income to the Government since an increase in the cost of using the facilities to include contractor payment for standby capacity (i.e., mobilization availability) would preclude the economic use of the machines for commercial work. The use of the equipment for commercial work and the consequent sharing of fixed overhead results in additional benefits and lower costs to the Government which do not appear as a part of the review made by the GAO.

9. Private investment in plant equipment not always encouraged

"In submitting justifications, contractors generally were not required to include statements as to their ability or willingness to finance the equipment. At most locations where we inquired into this matter, either the contractors had not been requested to acquire privately owned equipment or the files gave no indication that use of private funds had been considered in evaluating the proposals we examined." (page 39)

Comment: This statement does not apply to Northern Ordnance. Each proposal that is submitted to the Department of Defense for the replacement of worn Government facilities includes a detailed item-by-item description (including prices) of the capital items acquired by the contractor for its own account during the two prior fiscal years and the contractor's budgetary data for acquisitions by the contractor of its capital assets in the coming fiscal year for which the proposal is submitted.

10. Private investment in plant equipment not always encouraged

"The fiscal year 1966 modernization program for another contractor included four gear-making machines amounting to $232,100. The justification for replacement was based on data showing that the investment would be repaid within 3 to 4 years through reduced operating costs. We noted that, to achieve this objective, the initial-year use would have had to exceed current use by about eight times but that, as of September 1966, the contractor still had no active requisitions for additional gear machine operators. Moreover, one of the replaced machines had been used exclusively for commercial work for at least a year. Military officials informed us that the contractor had not been encouraged to invest its own capital in these machines." (page 40)

Comment: The recent amount of usage of the old equipment to be replaced cannot always be used as an accurate basis for projecting anticipated usage of the new replacement machines. The recent usage on Government work of the 4 machines to be relpaced was relatively small. This is due in part to the fact that 2 of these machines were 24 years old and the other 2 machines were over 10 years old. Due to their age and condition these machines were not suitable for the close tolerances required for Government work. The new gear machines have just recently been installed and we still anticipate utilization in Government work that will justify the replacement of the old equipment. We regret the apparent misinformation which the GAO seems to have received with respect to the statement that "as of September 1966, the contractor still has no active requisitions for additional gear machine operators". Since September 1966 the number of operators in the contractor's gear department has increased from 10 to 15 men. Gear machinists have been solicited actively through advertising in local newspapers and radio regularly during the last two years, since we are not experiencing an expansion in the activity of our gear manufacturing department. Furthermore, it should also be noted that the contractor has recently invested nearly $200,000 of his own funds in gear manufacturing equipment at this plant.

11. Transportation and installation costs

"We found that these costs had in some cases been applied as a percentage factor to the acquisition cost of IPE being rented by contractors. One contractor added a factor of 3.5 percent, another contractor added a factor of 1 percent. That these costs can be significant is illustrated by the fact that, in one case, a contractor increased the rental base for IPE by as much as $800,000 through the addition of a factor for transportation and installation." (page 43)

Comment: Since we apply the 3.5 percent factor to the acquisition cost of IPE to account for transportation and installation costs resulting in an $800,000 addition to the base for IPE on which we pay rent. Northern Ordnance appears to be adding the highest amount for transportation and installation costs among the contractors studied and thereby increasing the rental it pays to the Government. We have recently reviewed this matter indicating that this 3.5 percent factor is somewhat higher than can be supported by the historical records of actual costs of transportation and installation, and a lower factor should be used.

12. Real property

"For example, replacement of a portion of the plant's electrical distribution system costing about $104,100 was determined not to be of a capital nature because it replaced an existing system. We noted, however, that the capacity of the system to provide service was significantly greater after its installation and that the useful life of the property was extended by at least 10 years." (page 45)

Comment: The plant's electrical distribution system is an integral part of the Government buildings. It is not normal industry practice to capitalize the replacement of a small part of a capital asset. Although $104,100 is a significant expenditure, it is only a small part of the buildings costing several million dollars. The replacement of the obsolete and unsafe switch gear for which repair and replacement parts could not be obtained does not in any way extend the useful life of the buildings of which the switch gear is a part. A smaller part of the project involved the furnishing of larger lighting transformers to safely accommodate the presently installed capacity. It was determined by appropriate DOD authority in accordance with generally accepted accounting principles that these changes did not require a change in the Government's asset accounts.

13. Real property

"In another instance, an atmospherically-controlled room was constructed at a cost of about $37,800 to house four gear machines and related test equipment but the cost was expensed because the room did not alter the exterior dimension of the plant." (page 45)

Comment: The expenditure of $37,800 involved two separate projects, both involving modifications of existing precision gear manufacturing facilities. The costs of the first modification to house the precision gear equipment was treated at the request of the Government as installation charges in connection with the gear equipment, which costs have been appropriately reflected in the installation expense account mentioned under Item 11 above so that they have been added to the base for rental purposes even though the capital account has not been changed. The second portion of this expenditure involved repairs to existing walls and other commonly acceptable expensible items.

14. Special tooling and special test equipment

Need for better identification

"We found at one contractor's plant that, some tools were not marked for identification and identification could be made only by reference to engineering drawings." (page 49)

Comment: During the GAO survey only 5 items (out of a total of approximately 18,000) were determined to be improperly marked because the identifying marks had been obliterated by painting during normal tool refurbishment. Since these tools could be readily identified by reference to drawings, we do not consider that the temporary painting over of the markings on the 5 items represent a significant lack of control on our part.

15. Physical inventories

"At a third plant, we found that the inventory taking had been limited to determining whether a particular item was on hand, without regard to the quantity of identical items that should be on hand." (page 50)

Comment: We have determined that the number of instances where duplicate items of tooling had not been properly inventoried was small. However, immediate steps were taken to correct this deficiency when it was pointed out to Northern Ordnance management. The facilities operated by Northern Ordnance are surrounded by a double chain link fence and are closely surveyed by a large staff of security guards so that the danger of loss of Government tooling with or without inventorying is very unlikely.

16. Material

Financial accounting controls not maintained

"One contractor official, who estimated that several million dollars worth of Government-furnished material was on hand at his plant, stated that monetary controls for the Government-furnished material were impractical and that the contractor was primarily concerned with only quantities. Nevertheless this contractor maintained monetary controls over its own materials inventories." (page 56)

Comment: Northern Ordnance maintains records which permit the development of the cost of inventory parts when such information is required; however, total values for individual parts in inventory or for total inventories are not maintained. Because of the volume and complexity of the items produced by Northern Ordnance, it is estimated that the establishment of detailed monetary controls over Government-owned materials would cost the Government approximately $120,000 annually. In view of the stringent controls applied to the quantities of materials, we believe the establishment of additional detailed financial accounting controls would be an unwarranted expenditure of the taxpayer's money. The statement that "this contractor maintained monetary controls over its own material inventories" is not entirely true. Detailed monetary controls are maintained only over all our raw materials and over the inventory of work-in-process for our commercial products, the sum of which represents only 5 percent of the total inventory value of contractor-owned materials. These controls are necessary for proper financial reporting in accordance with acceptable accounting principles. No detailed financial controls for individual parts are maintained over the contractor-owned materials under Government fixed-price type contracts for the same reasons that we do not maintain such controls over Government-owned materials under Government cost-type contracts. Accordingly in these situations the contractor treats its own materials in the same manner that it handles Government-owned materials.

17. Inventory taking ineffective

"In some cases adequate internal control did not exist because the taking of the inventory did not incorporate appropriate segregation of duties of participating personnel. For example, at one location, the individual who maintained the stock records was custodian of the material, and he also took inventory. In such cases differences between the records and the physical count can be reconciled by adjusting the records or removing the stock cards, without independent evaluation of the propriety of the transactions." (page 57)

Comment: We consider that the establishment of a separate crew to inventory materials in the stockroom would be an inefficient use of personnel resulting in unjustified additional costs to the Government. The inventories currently performed have been reviewed by resident Government personnel and are currently being double checked on a spot check basis by representatives of the Northern Ordnance Quality Control Department. In addition, plant peripheral controls and controls over receipt and shipment of material are considered adequate to prevent loss of Government materials by pilferage and mishandling.

18. Inventory taking ineffective

"The inventory taking was incomplete in some cases because it was limited to verifying listings prepared from the property records and furnished to participating personnel; therefore, items which may have been physically on hand but not included on the listings provided would be omitted from the count.

"At one location the contractor performed a physical inventory of Government-furnished material but did not require a physical inventory of material it had acquired for the account of the Government. Also in a few cases, written procedures were lacking, the work was not properly documented, the results were not furnished to the Government, or inventories were not priced out." (page 57)

Comment: None of these statements applies to Northern Ordnance except for the words "inventories were not priced out". Our position regarding this statement is covered under Item 16 above.

19. Property management functions in the DOD Property Administrators' surveillance and approval of systems

"At one location we reviewed, the contractor's system was disapproved in July 1962 because the contractor's property control procedures were not adequate. In January 1965, the property administrator again reviewed the contractor's manual for control over Government property and reported to the contractor that the manual was "* * * sadly lacking detail, * * * and approval of the system was withheld. Since approval of the contractor's system had already been withheld no further action was taken against the contractor. At the time of our review the contractor still did not have an approved system." (page 64)

Comment: It is noted that approval of the contractor's property control system was being withheld not because there was anything significantly wrong with the system itself but because the written manual describing the property control procedures in effect was held by the Government representatives to be lacking in detail. The property control manual has been rewritten in great detail at considerable expense and was submitted for approval in March, 1967. The contractor's written property control procedures have now been approved by the Government.

WYMAN-GORDON CO.,
Worcester, Mass., December 11, 1697.

Ref: B–140389

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

(Attention: Mr. C. M. Bailey, Deputy Director, Defense Division.)

GENTLEMEN: We have reviewed with interest the GAO report to the Congress entitled "Need for Improvements in Controls over Government-Owned Property in Contractor's Plants".

We cannot be critical of the majority of the recommendations contained in the report as we believe a strict accountability for all inventories, equipment, special tooling and buildings is essential. We take pride in our belief that all items of government property leased or loaned to us have been and currently are reflected in property control records in our plants. If this is contrary to the fact we have no awareness of it and would welcome any comments and/or suggestions.

We are an operator of a Heavy Press Facility (Air Force Plant No. 63) and we are naturally vitally interested in the comments relative to the heavy press program appearing on Pages 32, 33 and 34 of the report.

There are relatively few members of the Congress and few, if any, departments or agencies of the U.S. Government (excepting the Department of the Air Force) possessing an intimate knowledge of the origin of the Heavy Press Program and the subsequent outstanding contribution made by it to the defense posture of the United States.

We have full and complete knowledge of this program as we were the first company in the United States to operate a heavy press facility. The original heavy press and the forerunner of the heavy press program was an 18,000-ton forging press developed under the sponsorship of the War Production Board in 1943 and financed by funds from the Defense Plant Corporation later absorbed by the Reconstruction Finance Corporation.

The 18,000-ton forging press facility went into operation on May 1, 1946 with Wyman-Gordon, having laid out the plant and assisting in the press design, as the operator under a Management Contract for the account of the Defense Plant Corporation. This arrangement continued until June 30, 1950 at which time cognizance of the facility was turned over to the Air Force. From July 1, 1950 until the present time we have operated this facility which in the early '50's was expanded with the addition of a 35,000-ton forging press and a 50,000-ton forging press and auxiliary equipment.

From the initial development of the heavy press forging concept and techniques in 1946 until today, Wyman-Gordon in Air Force Plant No. 63 has continually

advanced forging technology and skills. The original plant designed by Wyman-Gordon was designed solely for the production of *aluminum and magnesium airframe structural forgings.* Today, the range of materials forged covers aluminum, magnesium, steel, titanium and nickel base alloys with additional capability to forge beryllium, copper, columbium and other less common materials. Products forged serve airframe, missile, land and aviation gas turbine and nuclear weapons and power applications, ordnance and commercial markets to a limited degree. This product and market diversification has been achieved through both Air Force and Wyman-Gordon investment in facilities and Wyman-Gordon investment in research and development, technology improvement and forging skills. Currently, Air Force Plant No. 63 supplies major components for most Aircraft and other DOD programs.

Those of us who participated in the various discussions preliminary to the inception of the heavy press program believe that the basic mission of the heavy presses was to produce vital components to support the Government defense posture. It was to provide a sustaining industrial base, with strong capabilities, so that important defense needs could be met with less cost and in less time. These purposes have all been accomplished and are continuing to be accomplished.

It was recognized by the Government and by Industry at the inception of the heavy press program that a return on investment was not a substantial or controlling factor in the financing and establishing of these facilities but it was, as stated, to insure a production capability for defense purposes. The savings in the end products produced by the heavy presses have been substantial and have more than offset the original cost of the facilities provided.

It has been stated that the Government should have a better return on their investment and we would emphasize that this statement has been made without thorough consideration being given to the heavy press performance and is inconsistent with the philosophies and Air Force objectives at the time of the inception of the heavy press program. It was never intended that rental income, per se, be or constitute a measure of return on investment with respect to the heavy presses. At the risk of being redundant we would repeat that the prime objectives were: (1) to provide defense capability, (2) to reduce the cost of defense hardware, and (3) to improve performance of defense hardware. These objectives were reached many years ago, in fact, the payback to the Government through reduced costs of military aircraft was achieved in a decade of the '50's.

A large number and variety of Defense Programs have benefited from the heavy presses at Air Force Plant No. 63. Accurate ultimate cost reduction in supplying this hardware from the large presses is not susceptible to definitive determination but we estimate total savings to the Government at this point in time to be in excess of $500,000,000. This estimate is predicated on an analysis of a 10% sample of the total dies involved and this 10% sampling produced savings to the Government approximating $57,000,000. Additional savings of $40,000,000 accrued to the Government in classified programs thus producing a savings approximating $97,000,000 and this on only a portion of the production from the heavy presses. To further corroborate our statements we would refer you to a written statement prepared by the Air Force and submitted to the Subcommittee on Military Operations, House Committee on Government Operations on Development and Procurement of SATS at a hearing held March 11, 1964. We are attaching a copy of this written statement by the Air Force as we believe it pertinent to our mutual understanding.

We would take liberty and quote from the report as follows: "The implications were far-reaching. If forgings and extrusions large enough to comprise key aircraft structural elements could be produced in this country, not only would fabrication time be reduced greatly, but costs would be lowered. In addition, such a technique held the promise of producing these components with greater strength-weight ratios, an extremely desirable attribute from the standpoint of aircraft design." . . . "All in all, however, it should be understood that our major reason for undertaking the heavy press program was not so much to increase the flow of revenues to the Government in the form of rentals but to provide a self-sustaining industrial base, with strong capabilities, so that important defense needs could be met with less cost and in less time."

Again we quote from the statement prepared by Air Force and submitted to the Subcommittee on Military Operations on March 11, 1964: "To catalogue the significant accomplishments of the heavy press program is almost to relate the history of our modern advanced aircraft. A case in point is the "wet wing"

for the B–52. Here the wing not only serves its traditional purpose aerodynamically, but is itself a large fuel tank that provides maximum range to this intercontinental strategic bomber. It was through the extrusions from our heavy presses that wing panels of the required strength and at reduced weight were produced, all at considerably less fabrication and machining cost than would have been possible by other methods. *Although we have never completely analyzed the cost effectiveness impact of the presses on the B–52 program, we believe that the savings resulting from the forging and extrusion techniques have exceeded the entire cost of the heavy press program.*" (Underscoring added.) The reference in the Air Force statement to the savings exceeding the entire cost of the heavy press program is to the $220,000,000 total investment in the heavy press program.

It is unfortunate that those to whom the GAO report is submitted are unaware of the significant accomplishments of the heavy press program and of the savings that have accrued to our Government. It would seem upon reading the report, that the return to the Government has been predicated solely upon rentals without any consideration being given to the savings realized as set forth in this letter and in the testimony of the Air Force.

It would be helpful to all vitally interested in and concerned with the heavy press program to be given all of the facts and history of the program. It would serve to create a much better understanding for all and particularly to members of the Congress.

We are proud of our accomplishments with our portion of the heavy press program and believe that we have adhered to the philosophy embodied in our lease agreements and propounded at the inception of the Program and further believe we have contributed most significantly to the defense capabilities of this nation.

Sincerely,

SACKET R. DURYEE.
Vice President and Treasurer.

WRITTEN STATEMENT PRESENTED BY THE AIR FORCE ON MARCH 11, 1964, BEFORE THE SUBCOMMITTEE ON MILITARY OPERATIONS, HOUSE COMMITTEE ON GOVERNMENT OPERATIONS ON DEVELOPMENT AND PROCUREMENT OF SATS

ORIGINS OF THE HEAVY PRESS PROGRAM

The Air Force heavy press program actually had its genesis during the days of World War II. Allied intelligence teams inspecting German aircraft downed behind our lines discovered that they contained extremely large and complex major structural elements. Our appraisal of the situation, confirmed immediately after the end of the war, was that the Germans had produced these aircraft components with the aid of huge forging and extrusion presses possessing capabilities far in excess of those in our own industrial complex.

The implications were far-reaching. If forgings and extrusions large enough to comprise key aircraft structural elements could be produced in this country not only would fabrication time be reduced greatly, but costs would be lowered. In addition, such a technique held the promise of producing these components with greater strength-weight ratios, an extremely desirable attribute from the standpoint of aircraft design.

Just before the conclusion of the war, we embarked upon an urgent program to build a press able to match our estimates of the productive capability of the German equipment. The Mesta Machine Company of Pittsburgh was awarded a contract to construct on 18,000 ton forging press, and the Wyman-Gordon Company of North Grafton, Massachusetts, was selected to operate it. Since the press was so enormous, a pattern to be followed when the press program went into full swing was established—a plant had to be built around the press to house both it and its supporting equipment. The war ended, however, before the project was fully completed.

When our technical/industrial teams visited Germany after the cessation of hostilities, they found that the Germans had indeed developed and learned successfully to operate presses ranging up to 30,000 metric tons. In all, three heavy die forging presses, two with a capacity of 15,000 metric tons and one with a 30,000 ton capacity, were discovered in more or less useable condition.

Three extrusion presses in the 5,000 metric ton category were also located. As a part of the post-war settlement, the United States acquired the 15,000 and 5,000 metric ton presses which were later relocated and channeled into the Air Force heavy press program. The 30,000 ton press, however, was seized by the Russians, and with the Soviets in possession of so large a press, our heavy press program received added impetus.

THE HEAVY PRESS PROGRAM GETS UNDERWAY

The heavy press program actually got underway in 1950. This marked the culmination of many months of work by top planners, in Government and industry, who had conducted extensive industrial surveys in an effort to shape the content of a successful heavy press program. At the heart of these studies was the belief that heavy presses could make vital contributions to the Defense effort by providing a capability for the production of large structural members for advanced aircraft and other systems at an unparalleled rate, at low cost, and with a high strength-weight ratio. Congress was informed of the program, and the requisite approvals, together with the necessary funds, were obtained.

THE CONCEPT OF THE HEAVY PRESS PROGRAM

Before I proceed further, there are several points which should be underscored.

First, the heavy press program was unique. To service Defense contractors, particularly those in the airframe industry, we were concerned with the establishment of a heavy press capability for the production of larger, stronger, and lighter forgings and extrusions than previously available in this country. While the Defense Department policy was then, as it is today, that Defense contractors, where practicable shall provide their own plant facilities, and equipment, an exception is warranted in the case of special facilities for which there is no known commercial market. Since there was no commercial requirement for presses of this size, the Government undertook the sponsorship and support of the heavy press program.

Second, it was desirable to establish a self-sustaining industrial base for these heavy presses. To achieve this objective, industry had to be educated and encouraged to design and engineer products suitable for the special productive capabilities of the presses and to be assured of their continued availability on an economic basis. It was essential, therefore, to have a sufficient number of qualified heavy press operators in the program so that we could provide a competitive climate upon which industry could rely for quality, price, and product availability. The heavy press industry was at first hesitant to enter the program since there was no assurance that it would be profitable either as a source of defense or commercial business. Moreover, the Government's program, which was predicated on a "strictly business" rental arrangement with the contractor assuming normal overhead and maintenance costs, could, in fact, entail a financial risk. A representative, select group of operators, however, was finally persuaded to participate.

Third, a key objective was to permit the operators to use the presses, with a minimum of Air Force supervision or interference, with due consideration, however, to the Government's primary interest to rights in their output. To the extent feasible, similar terms and conditions were to apply so as not to confer any competitive advantages on the participants.

Fourth, we sought to rest our business arrangements with the operators on a sound economic footing. Because forgings and extrusions are not end items, but are parts and components of end items and are generally produced to meet the design requirements of prime contractors and lower-tier subcontractors with respect to specifications, changes, quality control, and delivery schedules, and because the output of the presses is intended for commercial business as well, we believed that a rental charge on the basis of sales was in order. This is consistent with Department of Defense ASPR policy to charge a rental for the use of facilities for commercial work and also for Government work unless it can be shown that as a result of rent-free use by the contractor adequate consideration is received through the reduced cost of the end item. It is administratively difficult, if not at times impossible, to assure that these conditions are met in the case of lower-tier subcontractors, such as the heavy press operators.

These, then, are the reasons for charging a rental for both Government and non-Government work on the presses. It should be understood, however, that the

rental requirement is not so iron-clad as to preclude, in proper cases, the granting of deviations for rent-free use should special circumstances warrant. We are aware, however, of no past instance in which such a waiver was requested.

SOME FACTS AND FIGURES

As presently constituted, the heavy press program is being carried out at seven separate locations across the nation by six different companies. The Aluminum Company of America occupies Air Force Plant 47 at Cleveland, Ohio, and utilizes two Government-owned forging presses, one 50,0000 tons and the other 35,000 tons; while in its own facility at Lafayette, Indiana, ALCOA operates a 14,000 ton Government-furnished extrusion press. Wyman-Gordon of North Grafton, Massachusetts, one of our earliest lessees, is in possession of Air Force Plant 63, with Government-owned forging presses of 7,700, 18,000, 35,000, and 50,000 tons. The Curtis-Wright Corporation at Air Force Plant 49 in Buffalo, New York, uses a 12,000 ton Government-owned extrusion press. In Halethorpe, Maryland, at Air Force Plant 50, Kaiser Aluminum operates two 8,000 ton Government-furnished extrusion presses, and in Madison, Illinois, the Dow Chemical Company, in its own facility, has a 14,000 ton Government-owned extrusion press. Rounding out the picture is the Harvey Aluminum, Inc., of Torrance, California. Also in its own plant, Harvey employs two Government-furnished extrusion presses of 8,000 and 12,000 tons. In all, the Government has a $220 million investment in the heavy press program. By way of comparison, the lessees report that they have put in some $19 million of their own funds.

The Government-owned presses have been furnished to the firms involved usually under an instrument known as a facilities lease. Arrangements of this type are authorized by law, Section 2667, of Title 10, United States Code. In some cases, as we have seen the Government not only has provided the presses but the land, buildings, and supporting equipment as well. In other cases, although the press and auxiliary equipment are Government-furnished, privately owned plant facilities are being utilized.

Aluminum is the primary raw material involved in the extrusions and forgings, although advances in the art of metallurgy have made possible the processing of exotic "space age" metals such as titanium and zirconium, but to a more limited extent.

TERMS AND CONDITIONS OF LEASES

The Committee has already been provided with a spread sheet outlining the pertinent terms and conditions of the leases. I should like to deal briefly with a number of these provisions. The first is the clause which establishes a priority for Air Force and other Government use. Obviously, since the press program was initiated essentially as an Air Force program, supported by funds justified by the Air Force and, therefore, an Air Force responsibility, the lease requires first priority in the utilization of the presses for Air Force and other Government work, as against commercial business. While no specific direction is contained in the lease as to how the first priority contract right is to be invoked or enforced, we are aware of no problem that has necessitated an interpretation of the provision or raised any question as to its effectiveness. This may be due to an excess available capacity in the heavy press industry.

The next provision I would like to comment upon deals with the matter of maintenance. For those of you who have seen the heavy presses, I am sure you realize why the label "elephant tools" is so appropriate. Like any large complex piece of machinery, these presses must be strictly maintained. Some of this is no more than a matter of routine lubrication. But maintenance may be far more extensive and can consist of non-recurring items such as the replacement of major parts. We call this latter type "abnormal maintenance." Since the Government owns the presses, it would not be equitable to require the lessee to pay for "abnormal maintenance" out of its own capital. Instead, we have offset some of the cost of "abnormal maintenance" against the gross rentals due. Section 2667(b)(5) of Title 10, United States Code, the basic leasing authority invoked here, specifically allows the cost of "maintenance, protection, repair, or restoration" of the leased property to be taken into account as part or all of the consideration for the lease. In other instances, we have funded "abnormal maintenance" directly. Of course, "abnormal maintenance" varies from press to press, depending upon the age of the equipment, its size, how well it was constructed in the first place, the extent of its use, and other considerations. Over-

all, the total amount devoted to "abnormal maintenance" since the program began through April 1963 has been about $5,900,000.

The rental provisions bear special comment. Having determined, as we have seen, that a rental charge was appropriate, we were confronted with the question of how best to scale the rentals to achieve, on the one hand the best rate of return to the Government, while on the other hand to promote the maximum ultilization of the presses.

With these considerations in mind and aware of the difficulties in the maintenance of accurate "time in use" records for each machine, we arrived at a rental geared to a percentage of sales, a commonly accepted commercial practice. This also minimized the need for close Government supervision of the press operator's day to day business and the administrative burden which it would entail. After extensive negotiations with the prospective press operators, the across-the-board rental rates were fixed generally at 4% of sales for products fabricated from the forging presses and from 4% to 5% for products coming off the extrusion presses, with a higher rate applied to those operators in possession of plants owned by the Government.

From the beginning of the program through the first quarter of calendar year 1963, our *net* rentals have amounted to some $11 million. This can be accounted for in part by the fact that, in many cases, the rental did not begin to accrue until the presses were fully operational. In other cases, later cut backs in our aircraft programs reduced the utilization of these presses below our initial projections. And, finally we have offset some of the costs of "abnormal maintenance" in arriving at the net rental. All in all, however, it should be understood that our major reason for undertaking the heavy press program was not so much to increase the flow of revenues to the Government in the form of rentals but to provide a self-sustaining industrial base, with strong capabilities, so that important defense needs could be met with less cost and in less time.

For the future, we expect a steady rise in the rental returns, since our forecasts point to the increased utilization of the presses.

POSITIVE ACCOMPLISHMENTS OF THE HEAVY PRESS PROGRAM

To catalogue the significant accomplishments of the heavy press program is almost to relate the history of our modern advanced aircraft. A case in point is the "wet wing" for the B–52. Here the wing not only serves its traditional purpose aerodynamically, but is itself a large fuel tank that provides maximum range to this intercontinental strategic bomber. It was through the extrusions from our heavy presses that wing panels of the required strength and at reduced weight were produced, all at considerably less fabrication and machining cost that would have been possible by other methods. Although we have never completely analyzed the cost effectiveness impact of the presses on the B–52 program, we believe that the savings resulting from the forging and extrusion techniques have exceeded the entire cost of the heavy press program.

In addition to the B–52 wing skin panels, the products of our heavy presses have been used for a wide range of applications for the aerospace industry—from aircraft landing gears to bulkheads, from spars, jet engine parts, radar antennae, propeller blades, aircraft wheels, to various sections of missiles. Some of the major aircraft programs involved are the C–130, C–141, the F4C, and now the F–111. The J–52, J–57, J–75, JTFLO, J–79, J–58, and J–93 engines are similarly dependent upon the output of these presses. There are, as well, other programs equally important to the national security that substantially rely on the key contributions that our presses are making—Polaris carrying submarines, Army vehicles, Marine boats, pontoons, and aircraft landing mats, to name several. And, as new programs are unveiled, the heavy presses will continue to provide basic support in the form of strong, light-weight components not as satisfactorily produced by other means.

AIR FORCE MANAGEMENT OF THE PRESS PROGRAM

The Air Force has subjected the heavy press program to continual surveillance in an attempt to improve its management techniques and contracting procedures. Our efforts have intensified over the past two years. Particularly noteworthy, in this regard, has been the work of the Air Force Systems Command Heavy Press Task Force. We are always in the market for constructive suggestions, and you

can be assured that the keen interest of the Secretary's Office in this important program will continue.

SEATTLE, WASH.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Your letter of November 29, 1967 requested comments on the report to the Congress on the need for the Department of Defense to improve controls over Government-owned property in contractors' plants. (Report No. B–140389 dated November 24, 1967) We appreciate the opportunity to furnish comments and trust that such comments may serve a useful purpose for both your further consideration and that of the subcommittee on Economy in Government of the Joint Economics Committee of Congress.

As a general statement on the over-all report, we believe it is most unfortunate that the report was released to the Congress and subsequently to the news media without benefit of involved contractors' review and comments, even though it is recognized that most of the report comments were directed at certain Government agencies who did have the opportunity to respond. Treatment of Congressional testimony on the report and the report itself in the press has led to unjustified inferences and allegations of violations of public trust by Defense contractors in the utilization of Government property without a recitation of all facts and circumstances involved. Consequently, our principal concern is not so much with what has been covered in the report, particularly as it relates to the Boeing Company, but with what has been left unsaid and the manner in which the content of the report has been treated by the Congress and the press.

This concern is magnified by the very nature of the report which is a conglomeration of findings at various contractors' locations. Each contractor, although affected by only isolated findings and in varying degrees, is almost certain to be assumed guilty by association on all counts. In our opinion the measure of guilt, under the circumstances, will become a function of size with respect to total dollars of property surveyed. Since the Boeing-Wichita operation encompasses approximately 38% of the value of the Government property surveyed, we are concerned that the company will be subjected to unwarranted criticism even though very few of the specific findings relate to our operations and these are readily explainable. Our observations on each of the specific findings are included in the attachment hereto.

A full disclosure of the facts concerning our management and use of Government property and the steps taken by the company to circumvent problems of the nature disclosed in the report will, we believe, reveal that our relationship with the Government in this regard has been forthright and consistent with controlling regulations, policies, and statutes, including appropriate payment for commercial use of Government-owned facilities. A review of the record will confirm that Boeing has consistently obtained approval for and adequately reimbursed the Government for such use. Further, the Boeing Company is in accord with Department of Defense policy that contractors provide, to the maxium extent practicable, plant and equipment required for Defense work. We have been moving in that direction for many years as evidenced by our very substantial investment in research, development and production facilities including the purchase of two Government-owned plants and related equipment declared excess to Government ownership.

With specific reference to Boeing-Wichita and the lease arrangements entered into at that location effective January 1, 1966, it should be noted that this action was taken after it had been determined by the Government that: (1) the property was not excess to the needs of the Air Force; (2) the property was not required exclusively for public use and was available for lease; (3) the lease took into consideration all of the property to be used for non-Government purposes; and (4) very substantial benefits would accrue to the Government in the form of rental income and other tangible emoluments by making the unused plant capacity available for commercial use. The lease was concurred in by the Office of Emergency Planning and two Congressional committees in accordance with applicable statutes and was approved by the Secretary of the Air Force as promoting the national defense and advantageous to the Government.

The following are specific examples of benefits flowing to the Government and the national economy through use of Government plant and equipment on commercial work:

(1) Rental income from commercial use of the plant and equipment in lieu of maintaining idle plant capacity or low equipment utilization. (Lease payments at Wichita for commercial use in 1966 and 1967 will approximate $8,000,000.)

(2) Lower overhead on existing military programs through distribution of fixed costs over a broader business base. (Overhead savings on military work at Wichita for the five-year lease period is estimated to be approximately $14,000,000.)

(3) Preservation of the Government facilities capability for future military work and enhancement of such capability by company investment in additional facilities. (Boeing investment in facilities at Wichita during 1966 and 1967 exceeded $10,000,000.)

(4) Preservation of skilled work force and technical capability for future Government work. (Total work force at Wichita exceeds 19,000.)

(5) Favorable impact on balance of payments problem. (Boeing exports of commercial transport aircraft during 1966 and 1967 totaled $689,000,000.)

(6) Favorable impact on the domestic economy through employment of a substantial number of prime manufacturing employees and widespread subcontracting programs.

We are hopeful that the foregoing general comments and the detailed comments set forth in the attachment hereto will serve to place the portions of the report relating to The Boeing Company in proper perspective. We earnestly believe that commercial use of available Government plant and equipment capacity on a non-interference basis can and does, as evidenced above, result in substantial benefits to the Government and any inappropriate restriction of such use would not be in the public interest. However, we also encourage the strengthening and clarification of applicable regulations where necessary to assure that such use is in the best interest of the Government and in accordance with Government policy.

Although the current Congressional and public reaction to the report may be difficult to overcome and could result in a flurry of unreasonable regulatory and legislative activity, we are hopeful that the General Accounting Office will use its influence to prevent misinterpretation of the report and to achieve what we believe to be its intended objective—improvement in the management and control of Government property commensurate with the economic benefits to be obtained.

It is our considered opinion that the review by the General Accounting Office of Boeing's utilization of Government property on its commercial programs should have reflected the fact that Boeing has made full compensation to the Government for such use and it is our view that your report to Congress should have so stated.

In view of the fact the report has been submitted to the Congress it is requested that this letter and the attachment thereto be given the same distribution.

THE BOEING CO.,
H. W. NEFFNER,
Vice President, Contracts.

Exhibit A

Comments on U.S. General Accounting Office report B-140389

Page 14

"At the remaining contractor plant the Government was negotiating a long-term lease specifically to permit commercial use of the IPE. The contractor maintained projected usage data rather than utilization data for selected items of IPE. The records showing projected use indicated that 32 items of IPE estimated to have cost $6.5 million would be used predominantly for commercial work the last 4 months of 1966. According to contractor estimates, commercial use of the plant was expected to be more extensive in 1967 than in 1966. DIPEC records indicated that, by the beginning of 1967, seven of these items, estimated to cost $1.3 million, would be in a critical supply classification. This would mean that, at the present demand rate, DIPEC would not be able to fill all of the requisitions received for this IPE in 1967."

Comment: The long-term lease was proposed by Boeing in November 1965 as a solution to the concern of both the Air Force and the company about future utilization of the Wichita plant. All property at this location subject to DIPEC control was reviewed and it was determined that retention of this equipment for long-term use at the Wichita location was in the best interest of the Government.

The retention of this equipment under a long-term lease was reviewed and approved by the Office of Emergency Planning, the Secretary of the Air Force, the Department of Defense and congressional committees.

"We were also restricted in our determination of need for 32 items of IPE that we had questioned at one contractor location because the need was based on estimates of expected use rather than on actual use."

Comment: We have not been able to identify these 32 items in the total information furnished to GAO personnel. However, expected use together with cost of removal and reinstallation are of greater significance in the use and management of Government property than current actual use. We have not considered it economically justifiable to maintain machine by machine actual usage data for rental purposes.

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Contractor	E
Number of machines acquired	10
Cost of machines	$1, 490, 000
1st year savings:	
Included in justification	$1, 380, 000
Estimated amount realized	$2, 164, 000
Justifications in excess of amounts realized	—$784, 000

Comment: This schedule indicates that the first-year savings realized were in excess of the estimated amounts in the justifications.

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"For contractor E also, machines usage in later years for commercial work began at 12 percent and, in one instance, reached as high as 97 percent of production time. Most of these machines were subsequently sold to the contractor."

Comment: These machines were sold to Boeing as part of a total plant purchase, which was judged to be in the best interest of the Government.

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"Among the errors were . . . inclusion of the savings anticipated on commercial production."

Comment: The DD Form 1106 used for computation of anticipated savings did not provide for segregation of savings between Government and commercial work. It should be noted that data submitted with facilities applications did identify estimated savings applicable to Government work and that such data was used by GAO in connection with this examination. In our opinion the justification procedure was not in error and our facilities applications could not have been misleading.

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"Another contractor had a number of multimillion-dollar incentive-type contracts which had been negotiated before various new machines were added to its facilities contract and were in an active status at least a year after the machines were placed in operation. The prices of these contracts had not been specifically adjusted to reflect modernization savings. The utilization of the machines under a contract could not be determined from the contractor's records. Government contracting officials told us, however, that, during the operating period referred to, the machines were utilized almost entirely on Government programs and that they could have been used on the incentive contracts."

Comment: We consider this paragraph to be wholly misleading. Although utilization of the machines under the contracts could not be determined from the company records, the delivery dates of contract end items furnish compelling evidence that the machines were not used on contracts negotiated prior to the activation of the machines. This evidence is in the General Accounting Office files. The Boeing Company consistently forecasts improvement in operating performance without specific knowledge as to the actions required to achieve such improvements, and it is our opinion that any possible savings resulting from modernization was properly reflected in total required cost improvements, as negotiated.

"At one contractor's plant, we noted that the contractor had prepared a listing of multipurpose tools costing about $36 million, which were classified as special tooling.

"A report issued in March 1966 by the Air Force property administrator located at this plant stated:

"It was observed that identical items sitting side by side carried facility property tags in one instance and special tooling tags in another instance. This would reemphasize the need for a comprehensive review and reappraisal of the criteria for determining how and at what point these items were sorted into facilities or special tooling. The existence of complete machines built as special tools, articles attached to facilities or real property on a permanent or semipermanent basis, items so general in nature and so obviously nonspecialized, and yet identified as special tooling makes an ambiguous and untenable situation.'

"The property administrator stated that the tooling in question was being used by the contractor on all programs without payment or rent and recommended that it be transferred to the facilities contract. Apparently as a result of the property administrator's recommendation, a pending lease agreement between the contractor and the Air Force provides for the payment of rent for commercial use of special tooling and test equipment costing about $3.6 million. This amount was determined by the contractor by reviewing the list of standard tools comprising the $36 million total previously mentioned and estimating the quantity and value of such tools that could be used for commercial purposes.

"Because there was no itemized listing of the $3.6 million of tooling which the contractor intended to use, it appears to us that any amount of the $36 million of tooling could be available to the contractor for commercial use. Although the lease agreement had not been executed at the time of our review, it appears that the standard tools are to retain their special tooling classification."

Comment: The report is correct in stating on pages 51 and 52 that the company may use, under the lease referred to above, any of the $36 million of tooling. The tooling which could or would be used on commercial work was estimated to be 10 percent of such total by acknowledgeable Boeing and Air Force personnel and the lease was prepared accordingly. The Air Force and Boeing recognize that a problem exists in the disposition of excess special tooling. We have been working with the Air Force for approximately one year in arriving at a contractual means to retain special tooling that is necessary for future Government work and to dispose of that which is truly surplus. It is believed that a significant amount of the special tooling will be authorized for disposition in the near future.

With respect to use of special tooling by Boeing on commercial programs without payment of rent, such use was of very minor significance prior to the effective date of the lease and we are presently negotiating an agreement for payment of rent for such usage prior to the date of the lease agreement.

"For example, the Air Force sold its KC–135 special tooling to a contractor because the items could be applied to similar commercial airplanes."

Comment: In addition to the purchase price, Boeing had paid rental for use of this tooling in amounts exceeding the cost of the tools. In our experience the opportunity for use of Government-owned special tooling on commercial work is a rare occurrence.

"Special tooling at the 11 aircraft engine and air frame contractors included in our review had a total approximate acquisition cost in excess of $299 million and at five of these contractors we established that portions of the special tooling had been used at one time or was currently being used for the manufacturer of commercial components. The items which we question have long-term value and in some cases have multiuse."

Comment: To the extent that this applies to the Boeing Company, it is covered by our comments on the items appearing on pages 51 and 52.

(The following wire sent today as follows:)

CLEVELAND, OHIO, *January 4, 1968.*

CHARLES M. BAILEY,
Deputy Director, Defense Accounting and Auditing Division, U.S. General Accounting Office, Washington, D.C.

This will confirm the oral comments given to your Mr. Hammond yesterday pursuant to your letter of November 29, 1967, and in response to his urging that TRW's comments concerning GAO's report to Congress dated November 24, 1967 (B–140389) had to be given at that time in order to receive any consideration before the release of TRW's name as one of the contractors referred to in that report.

TRW has complied with all the terms of its contracts, and with the applicable laws, the aarmed services procurement regulation and the directives of the administrative officers of the military departments.

We wish to protest most emphatically the gross unfairness to all concerned of the procedure followed in this case which permitted the release of a report to Congress carrying an unmistakable implication to the contrary without the essential rudimentary safeguard of first obtaining the views of the contractors affected. This unfairness has been compounded by the inadequate time permitted to us to prepare a response to this complex document. Not only were we not given an opportunity to comment on the GAO report to Congress, TRW did not know fully the basis of the GAO findings regarding TRW until December 15. Our ability to evaluate the GAO report has been hampered by the fact that the GAO findings appear to have been based in some instances on misinterpretation or misunderstanding of contract terms and on consideration of incomplete and erroneous information which distorted the true facts in several important respects.

The following points summarize TRW's position regarding matters of prime concern among the findings you designated as pertinent to TRW.

1. Contrary to the GAO allegations, TRW did not use IPE without the proper authority. For example, the statement that TRW used 10 machines 100 percent of the time for commercial work without obtaining advance OEP approval is false. In fact, the 10 machines were not used in excess of 25 percent for non-Government work and hence no advance approval was required.

2. Contrary to implications from the report in press discussions of it, TRW has paid rent for work for all commercial programs as well as for some Government programs. In fact during the 1963–65 period of the report, TRW paid over $2.5 million in rental to the Government.

3. We are puzzled by GAO's criticisms relating to accounting for use of Government equipment and for reporting. In June 1960, GAO by letter to TRW indicated that TRW's method of accounting for usage of IPE was appropriate and carried the implication that use of the method now recommended by GAO would be inappropriate. In part the letter stated:

"It is recognized that the contractor does not maintain records and data indicating usage of all individual items of facilities and the maintenance of such records would be uneconomical, impractical, and unnecessary."

4. With respect to the 8,000–ton press, the numerous GAO comments have distorted the facts and created a false impression regarding the following.

A. Contrary to the GAO report, the 8,000–ton press was acquired not only for the production of one specific jet engine blade, but also for use in connection with expected future defense needs that would require presses larger than the 4,000–ton machine then available. At the time of the proposal to acquire the press, TRW 4,000–ton presses were not able to forge certain jet engine parts without overloading. The Air Force and the press manufacturer confirmed this fact and cautioned that such use of the 4,000–ton presses would likely result in damage.

B. From the date of the original proposal to purchase until the 8,000–ton press was ready for production, numerous technological developments occurred which enabled larger parts to be forged on the 4,000–ton press than theretofore was possible. Advances in lubricants, die manufacturing, and preformed shapes all contributed to this advance in the state of the art. These advances were largely financed by TRW and have resulted in significant savings to the military departments. Thus, contrary to GAO's statement that the 4,000–ton presses are less efficient than the 8,000–ton press, because of the previously described advances in the state of the art they had become more efficient than they were, so that actually the use of the 4,000–ton presses in the instances described resulted in less cost to the Government than if military work had been forged on the 8,000–ton press.

C. Use of the 8,000–ton press in 1966 and 1967 and as projected through 1970 on the stage one fan blade for the C–5A airplane, provides abundant vindication of the acquisition of the 8,000–ton press. This C–5A blade clearly exceeds the capability of the 4,000–ton presses even with the present state of the art. If not produced on the 8,000–ton press it would require an alternative method of production known as machining. Savings to the Government attributed to the use of the 8,000–ton press on this single part compared with using the alternative production method, are conservatively estimated at $2,400,000—an amount substantially in excess of the original cost of the press.

D. TRW has paid rent for commercial work which has been run on the 8,000–ton press. Through October 1967 in excess of $375,000 has been paid to the Government. This amount exceeds the depreciation of the press attributable to commercial work under acceptable accounting standards.

E. GAO's statement that the 8,000–ton press was used from 1963 through 1965, 78 percent of the time for commercial work is erroneous and misleading. Based on the available hours during this period, use of the press for commercial work did not exceed 25 percent of such available hours. In fact, during 5 months of the year 1963, the press was not devoted to any commercial work whatsoever.

F. Most important of all, the acquisition of the 8,000–ton press made it available when needed by the Air Force to meet the required delivery dates of the C–5A aircraft engines, and the essential experience gained by TRW's use of it from 1963 through 1965 gave needed capability and assurance on this vital program. Other aircraft planned or abuilding, such as the SST, provide additional confirmation of the wisdom and correctness of the decision to procure the 8,000–ton press.

We are continuing with our evaluation of your findings concerning TRW and expect to submit more detailed comments to you within the next several days.

Meanwhile, it is requested that arrangements be made for this statement to accompany any release of information, either to the Congress or to the press, which mentions TRW in connection with your report.

TRW, INC.

THE BENDIX CORP.,
Detroit, Mich., December 16, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Thank you very much for your letter of November 29 and accompanying copy of your report of November 24, 1967, to the Congress relating to Government-owned property in contractors' plants. We appreciate the opportunity offered to comment on the findings.

Your letter indicates that the findings applicable to our company have been identified by marginal notations, and, in view of time, our attention will be limited to these. There are only two. The first appears on line C of Page 36 of your report, and relates to anticipated versus estimated realized savings from four machines costing $886,000, acquired under the Government's program for Modernization of Industrial Plant and Equipment. The second appears at the bottom of Page 39 and the top of Page 40 of your report, and relates to the question of use of private versus Government funds for this equipment.

With respect to the first item, the four machines involved are fairly sophisticated numerically controlled machine tools furnished to the Energy Controls Division of our company for use in the manufacture of aircraft landing gear struts, replacing ten machines having an average age at time of replacement of approximately 19 years. These items of IPE have been shown in the table on Page 36 of your report because our reported savings fell short of those originally anticipated. The four machines are long lead time items, and, consequently, were not installed and operational until 25 to 32 months after our justification for their acquisition was presented. As pointed out in your report, DOD instruction 4215.14 calls for an estimate of savings based on an assumed use of the machines in the production program for the next twelve months immediately following the estimate, notwithstanding the fact that the machines would not be available and operational until years later. In defense of the instruction, this does place the estimate on an established reasonbaly firm production schedule to which Government representatives might apply an appropriate correction factor to reflect any anticipated future schedule changes of which they are aware, rather than introducing further uncertainties by having the contractor attempt to forecast what production the Government might want two or three years later. In any event, the anticipated and reported savings cover two entirely different production periods spaced approximately 30 months apart.

During this 30-month period the production program to which these machines were to be applied changed significantly in two major respects. First, the amount of Government production was so reduced that the work load would have been reduced about 56% on the old machines which two of the new machines re-

placed and about 68% on the old machines which the other two new machines replaced. I am sure you will appreciate that such a drastic reduction in utilization has an even magnified effect on savings. Second, the production mix of high tensile strength steel parts to aluminum alloy parts changed during the 30-month intreval between the two production periods. The production which remained involved a greatly increased percentage of high tensile strength steel parts. This change made the machining job much more difficult and slower, with resultant loss in anticipated savings. We also encountered problems much greater than anticipated in maintenance of equipment, grinding of cutting tools, tool replacement, etc., such that the savings in machining steel were even further reduced. Thus, the estimated realized savings were on a much different set of production conditions than those which prevailed at the time of the anticipated savings were prepared.

While the changes in size and character of the production program were the greatest contributors to added cost, there were a number of other items worthy of mention which contributed to the reduction of the estimated savings.

In hindsight, we feel that the machines were prematurely subjected to savings evaluation. This evaluation was initiated immediately following the completion and acceptance of cutting tests and prior to the allowance of a normal shakedown period for equipment debugging, operator training and familiarization, and supervisory recognition of the characteristics, capabilities and weaknesses of the equipment. As a result, learning was experienced during the introductory period of this equipment with additional decrease in savings.

Although we expected the complex, sophisticated new equipment would have greater maintenance costs than the old, those costs turned out to be much higher than expected. Actually they ran more than twice what we expected and more than ten times as much as for the old machines.

We also did not realize the savings in scrap and rework costs which we anticipated. Instead of an 80% reduction, the ratio realized was only about half as much. This was in part due to the fact that during this particular reporting period the Government Zero Defects Program was initiated wtih heavy emphasis placed on deviation-free performance. With these more regid standards some increase in scrap was encountered. This had a secondary cost effect, in that efforts to eliminate defects resulted in a need for redesign of fixturing and other tooling for use with the equipment, resulting in further reduction of savings. There is some question whether we could have even attained any success on the Zero Defects Program if the old equipment had been retained.

We do want you and the Congress to know that we are not satisfied with the estimated savings realized during the post-analysis reporting period. We feel that some of the causes discussed above were temporary and have been overcome, whereas the majority are inherent in the change in the size and character of the production program. Based on our present knowledge of the equipment capability, we feel the original estimate of savings, although sincere, was optimistic; however, with the shake-down period behind us and an increasing workman familiarity with the equipment, greater savings are now being realized than those experienced in the initial year covered by the post-analysis report.

Reference is now made to the second comment applicable to our company beginning at the bottom of Page 39 and continuing on the top of Page 40 of your report. This comment relates to our willingness to privately finance the four machines under discussion and whether or not we were requested to do so. It is the recollection of our facilities people at our Energy Controls Division by whom the equipment involved was requested, that the question of private financing of this equipment was raised and discussed at length by the Air Force personnel responsible for facilities.

Recognizing that—

(1) the military requirements for struts at this time were uncertain,

(2) the pricing and competitive environment for struts did not indicate long-term stability of this business, and

(3) the specialized equipment appeared of little use to Bendix except for military strut manufacture,

a decision was reached that we would be unable or unwilling to use private financing, above capital commitments then being made at this division, to acquire the four machines here involved. In fact, the division did experience a drastic reduction in sales and profits and operated at a loss for an extended period.

It is of interest to note that this division committed itself for privately financed capital equipment through this period in amounts by fiscal years of approximately the following:

1962	$1,164,000
1963	1,853,000
1964	1,005,000

Since that time, this division has continued to make sizable capital investments. For the last three fiscal years the capital investment was approximately as follows:

1965	$ 782,000
1966	2,025,000
1967	5,446,000

In addition, at the close of the 1967 fiscal year, there were approved but unexpended capital appropriations at this division amounting to approximately $4,470,000.

We trust the above comments will be helpful. Thank you again for extending us the opportunity to comment on your report.

Very truly yours,

CHARLES HUMMEL.

UNITED AIRCRAFT CORP.,
December 8, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: This is in reply to your letter of November 29, 1967 forwarding a copy of your recent report on Need for Improvements in Controls Over Government-Owned Property in Contractors' Plants, and requesting comments on the findings pertaining to our company.

Your report does not give the names of the contractor organizations included in your findings, and so far as we have been able to determine internally, only two of our divisions have recently been subject to GAO audits related to government property, and may be included in your findings. These two divisions hold government-owned facilities having an aggregate original cost of approximately $11,000,000. In neither instance did your field representatives indicate that they had any significant criticisms of our divisions as a result of these audits, and the passages in the report which you indicated as applicable to our company appear to bear this out. Accordingly, we have no comments to make.

The recommendations in your report would entail some serious administrative and other problems; however, we feel that these can best be commented upon by ourselves and other contractors in response to any proposed changes in the Armed Services Procurement Regulation which may be initiated by the Department of Defense as a result of your investigation.

Sincerely,

W. P. GWINN, *President.*

CONTINENTAL AVIATION & ENGINEERING CORP.,
December 12, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Your letter of November 29, 1967, to Mr. A. W. Wild, President of Continental Aviation and Engineering Corporation, has been referred to me.

I have now isolated the portions identified as "marginal notations" and have done some investigation. It appears that the General Accounting Office investigation effort was completed some time ago and I am attempting to locate the people at Continental identified with this activity.

Your letter requests our comments within two weeks from November 29th. Due to the above circumstances, it appears that we will not be able to make our determination as to comments prior to December 28, 1967.

Very truly yours,

EARL F. KOTTS,
Assistant General Counsel.

CONTINENTAL AVIATION & ENGINEERING CORP.,
December 27, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: As a follow-up to my letter of December 12, 1967, Continental Aviation and Engineering Corporation has decided not to comment on the GAO report dated November 24, 1967.

Yours very truly,

E. F. KOTTS,
Assistant General Counsel.

KAISER ALUMINUM & CHEMICAL CORP.,
December 13, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: This is in response to your letter of November 29, 1967 to Mr. T. J. Ready, Jr. which transmitted a copy of the report of November 24, 1967 to the Congress on the need for the Department of Defense to improve its controls over Government-owned property in contractors' plants.

Comments were requested on findings pertaining to this company as identified by marginal notation on the report. The first notation related to equipment which had not been in use for extended periods of time and had not been declared excess by the various contractors in accordance with applicable directives. It is our practice to work with the government in minimizing retention of excess equipment. It should be noted that our records indicate the following pieces of excess equipment have been removed from the Halethorpe Heavy Press Extrusion Facility since November 15, 1965: Production equipment, 50; furniture and fixtures, 161; and plant equipment and machinery, 14. The aggregate original value of these removals is approximately $500,000.

The first marginal notation indicated this company to be responsible for two pieces of excess equipment which we believe to be two jib cranes at Halethorpe having a combined orginal value of $2,060. Low utilization of these cranes was called to our attention during your review, and the cranes were declared to be excess equipment on November 6, 1966. In accordance with government approval of March 23, 1967, for disposal by scrapping, the cranes were sold for $20 and removed on April 24, 1967.

The second marginal notation was in reference to a discussion of return on the government's investment in heavy presses. The stated objective of improving the return via increased rental receipts is a logical one which we believe is attainable only with a relatively high constant utilization rate. From our long association with the program, we know that historically the government business on the presses has fluctuated widely as a result of sharp changes in military requirements, while commercial business has been relatively low. We believe the government should establish rental policies which will encourage commercial use and thus provide the high volume necessary for an improved return on investment. To accomplish this objective and best serve the government's purpose, it must be recognized that the aluminum extrusion industry is highly competitive with equipment rental an important cost consideration. This company has devoted considerable innovative effort to develop commercial business for the presses such as structural components of high voltage electrical transmission towers. Hopefully there are many applications which could be developed into good commercial business through continued research and marketing effort.

We have concluded that specific findings in the report applicable to this company are limited to the matter of the two small cranes. It is our opinion that prompt corrective action was taken to rectify this minor oversight. We trust that any identification of Kaiser Aluminum & Chemical Corporation with the report will clearly indicate our very limited involvement. If the conclusions we have drawn are incorrect, we would like to meet with you to clarify our position.

It is our opinion that the report is generally constructive in recommending improvements in control over property. Thank you for soliciting our comments.

Very truly yours,

A. N. WARBURTON, Jr.

HARVEY ALUMINUM, INC.,
Torrance, Calif., December 13, 1967.

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

(Attention: Mr. C. M. Bailey, Deputy Director, Defense Division.)

GENTLEMEN: This acknowledges receipt of your letter of November 29, 1967, addressed to Mr. L. A. Harvey, President of Harvey Aluminum, and enclosure of the Report to the Congress relating to "Need for Improvements in Controls over Government-Owned Property in Contractors' Plants."

We greatly appreciate the opportunity afforded us to comment on the report. Your office and the Subcommittee are to be commended for the practice of submitting reports to the entities and persons affected, for their comments. Such practice promotes good relationship between the Government and its citizens.

Comments pertaining to our company are contained in your report on pages 13, 28, 32, 43 and 64.

The comment on page 13, regarding utilization of industrial plant equipment, indicates that 74 items of equipment had not been used by us during the first 9 months of 1966. Twenty-six of these items have been declared excess and have been disposed of; many of these 26 items had already been identified and were in process of being declared excess prior to the time of the G.A.O. review. Thirty of the items are in use since these were being held for known future use on Army and Navy 20mm projectiles, fuse bodies, etc., as was explained to G.A.O. personnel during their visit. At request of the G.A.O. personnel, we furnished the contract numbers of the contracts which required use of some of the above retained equipment. Delivery schedules of the contracted supplies are shown therein. Fifteen additional items of equipment were also held for intended use in producing similar military supplies; however, it has been determined that these items are not required and are in process of being declared excess. Three items are being held for use on a contract presently being negotiated in connection with the Weteye Missile.

At the time of the G.A.O. review, Harvey, at the request of the Government, in coordination with personnel from Frankfort Arsenal and DCAS, was in process of establishing new production lines in order to increase and expedite our manufacture of ammunition components and related items, and it was necessary to phase in these items of equipment with additional Government equipment being furnished. These new production lines were established in order to increase production of these critically needed military supplies. To illustrate the need for this equipment, Harvey is using it to produce approximately 5 million 20mm projectiles, 900.000 40mm projectiles, 1.5 million fuse bodies, and various other items each month.

For many years, Harvey has had a policy of continuously screening all items of equipment to determine those excess to its present and planned needs. We believe that this policy has resulted in declaring items excess as soon as justified under the circumstances. We expect to continue this policy as we believe it to be in the best interests of both Harvey and the Government.

The comment on page 28, referring to rental on industrial plant equipment, states that rental was computed according to varying formulas on like classes of machines of similar age and value. This is true, however, since facilities contracts are generally negotiated to provide equipment for specific purposes under varying conditions at the time of negotiatons and further to assure the Government a reasonable rental therefor based on the required and/or expected utilization of the equipment, and the product to be produced.

This variance in rates is illustrated by the fact that one of our contracts requires us to pay a monthly rental rate of 1% of acquisition cost of the equipment even though the equipment is now over 10 years old; whereas, ASPR 7–702.12 provides for a uniform ¾% rental rate on this type of equipment which is over 10 years old.

Harvey Aluminum has been paying its rentals in accordance with the terms of its contracts.

The comment on page 32, regarding revised rental procedure needed to increase return on investment in heavy presses, must of necessity look into the requirement for the heavy presses and the ultimate savings to the Government under the program.

During the 1948–54 period, the Heavy Press Program was justified and authorized solely on the basis that the prospective products therefrom were mandatory to attaining the necessary performance of projected Aeronautical weapon systems at a reasonable cost. The size, complexity and fidelity of the forgings and extrusions produced from the equipment in the Heavy Press Program have permitted attaining the sophistication and performance of Aeronautical and Aerospace systems of the past decade. Additionally, these and even larger forgings and extrusions are requisite to the continued evolution of these systems.

While the rental return on the Government investment in this program does not appear to compare favorably with that on Government Bonds and Commercial Paper, the following factual information should be taken into consideration before reaching a conclusion in the matter:

(a) The Heavy Press Program was justified and authorized by the Gomernment as a requisite to the desired evolution of Aeronautical systems. The program has much more than returned the Government investment in the validation of this justification. Multi-millions of dollars have been saved by the Government because of lower assembly and production costs due to this concept of manufacture.

(b) The size, complexity and dependability of the forgings and extrusions available from the Heavy Press equipment are an order of magnitude improvement over those available in the 1940–1950 period.

It is our belief that the overall savings to the Government as expressed above has given the Government a much more significant return on its investment than the same investment in Government Bonds or Commercial Paper would have produced.

The comment on page 43 relates to Transportation and Installation Costs.

Installation Costs for items of Government equipment were generally paid for by Harvey Aluminum itself. In one instance the contracting agency allotted a sum estimated to cover installation costs. This amount was added to the acquisition costs of the equipment and the contractor has paid rental based thereon.

Transportation Costs were paid for by both Harvey Aluminum and the Government. An audit is now being concluded and determination will be made in the near future as to the amount of transportation costs that should be added to the acquisition costs of the equipment. It has already been determined, however, that the increase in the amount of rental to be paid the Government because of this factor will be very nominal.

The comment on page 64 indicates that the Government Property Administrator had withheld approval of the system we use in accounting for Government-owned property.

Harvey Aluminum has been operating under approved procedures for control of Government-owned plant equipment. Also, there has been regular surveillance by the Property Administrators of such equipment at our plant for a number of years. However, in order to conform with the latest instructions prescribed in ASPR, an updated procedure for control of Government-owned plant equipment was presented to the Property Administrator and his approval was received on April 24, 1967. During their visit G.A.O. representatives noted that Harvey has been following prescribed procedures in the administration for control of Government-owned plant equipment.

We again wish to express our thanks to your office in giving us the opportunity to comment on your report to the Congress. We feel that Harvey has attempted in every way to establish and maintain effective controls over Government-owned property at its facility. We trust that the foregoing explanations will

assist you in furnishing the Congressional Subcommittee with the additional information they requested.

Very truly yours.

JACK ROSS, *Treasurer.*

HOLLEY CARBURETOR CO.,
Warren, Mich., December 12, 1967.

Reference: B-104389.

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division, Washington, D.C.

(Attention: Mr. C. M. Bailey, Director, Defense Division.)

DEAR MR. BAILEY: This is in reply to your letter of November 29 addressed to Mr. H. T. O'Connor, who is no longer with our company. We appreciate receiving a copy of your report to Congress on the need for the Department of Defense to improve its controls over Government-owned property in contractors' plants. We wish to state emphatically that we are entirely in accord with the general subject matter of this report and concur with the recommendations.

We note that our copy of the report contains no marginal notations which we trust means that we were found to be in compliance with your remarks.

In our own case we feel particularly strongly about the removal of machines which will no longer perform an adequate economic function in connection with our government contract work. We have, during the year 1967, declared surplus and returned 34 pieces of equipment valued at $192,000 and we intend, during the year 1968, to do likewise in connection with 16 additional pieces of equipment valued at $134,000.

We commend your efforts toward the reduction of government expenditures and the obtaining of the maximum effectiveness from the dollars spent, and we assure you of our full cooperation.

Very truly yours,

MILTON J. KITTLER.

MENASCO MANUFACTURING CO.,
Burbank, Calif., December 28, 1967.

Mr. C. M. BAILEY,
Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Under date of November 29 you submitted to us a copy of the Comptroller General's report to the Congress on the "Need For Improvements In Controls Over Government-Owned Property In Contractors' Plants."

You stated that the report included examples associated with your findings that were applicable to Menasco and that these were identified by marginal notation. You requested our comments on the findings pertaining to Menasco as well as any other comments we might wish to offer on the matters presented in the report.

With respect to general comments, I believe it would be presumptuous for me to comment on matters which are beyond the scope of our personal knowledge. However, I can note that in their relationships with Menasco, the Air Force and DCASR appear to be extraordinarily diligent in protecting the interests of the Government in the matter of Government-owned property.

Page 14 of the report recites in part:

"We found that in many cases contractors did not maintain utilization data which would permit application of usage criteria.

Accordingly, we could identify only four items of IPE estimated to cost $35,800 at two locations where low use was indicated by other review techniques. In three instances, however, reasonably complete utilization data were maintained. *These data enabled us to question the basis for retention of 76 items of IPE, estimated to cost $1.2 million, which did not satisfy the criteria specified by the Assistant Secretary of Defense as we interpreted it. None of this equipment had been reported as excess by the contractor.*" [Italic ours]

It is noted in the margin that "2 of 76" relate to Menasco. We have ascertained that the machines in question were a Sheffied grinder (1952) and a Kearney & Trecker mill (1953). These machines were in fact surplus at that time to our requirements and have since been declared surplus and surrendered to the Government.

Menasco has a large number of a wide variety of Government-owned and Menasco-owned machine tools which we use in the manufacture of landing gear. Because of the changing character and changing requirements of our product programs, our facility requirements are subject to constant change. It is our policy to dispose of equipment which does not have continuing economic utility whether it be Government-owned or Menasco-owned. Our failure to declare these two machines as surplus was a Menasco administrative error. All of our product contracts are fixed price. Because of excess costs associated with space utilization and maintenance of equipment, it is in our own interest promptly to dispose of equipment no longer in use.

Page 41 of the report recites in part:

"*One contractor informed us that its policy was to invest in IPE one half of its after-tax earnings, plus the amount of depreciation for the period. The remaining IPE needed would then be requested from modernization funds and the DIPEC inventory. The stated policy appears to be in consonance with present DOD objectives in the modernization program.*" [Italic ours]

Menasco appreciates this favorable comment. You may be interested in learning that long before the recent announcement of our new $7 million modernization and expansion program, Menasco had adopted the policy of applying *all* of its after-tax earnings and depreciation recovery to finance its modernization and expansion.

Page 43 recites in part:

"The ASPR, section 7–702.12, provides that, for rental computations, the cost of facilities shall include the cost of transportation and installation. We found that these costs had in some cases been applied as a percentage factor to the acquisition cost of IPE being rented by contractors. One contractor added a factor of 3.5 percent, *another contractor added a factor of 1 percent.*" [Italic ours]

Menasco has been applying a factor of 1 percent to inbound freight for the purpose of developing a base for rental computation. The actual cost of installation of equipment if it is borne by the Government is added to the cost of the equipment for purposes of rental computation. If Menasco assumes the cost of installation, the cost is written off against current profits. A recent study by us makes it evident that the application of 1% develops an aggregate amount which is almost identical to that which would have been determined by a tabulation of the actual inbound freight bills. Finally, the question is actually academic with respect to our Texas Division—which was the subject of your inquiry—because through our fiscal 1967 ended June 30, 99% of our Texas effort was on Government contracts.

I am attaching for your further information, a copy of a talk which I recently made at Wright-Patterson Air Force Base in which from our point of view I attempted to place in focus Government-owned equipment and its utilization in the context of the economics of the landing gear industry. I hope that you will find this helpful in your further study of this question.

Sincerely,

GERALD J. LYNCH.

BEECH AIRCRAFT CORP.,
Wichita, Kans., December 18, 1967.

Mr. C. M. BAILEY,
Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Your letter, referenced B–140389, addressed to Mrs. O. A. Beech has been referred to this office for reply.

In accordance with your request, we have the following comments relative to the items identified by marginal notation in your report to the Congress on Government Owned Property in Contractors Plants.

Page 14—first paragraph

Our records indicate the equipment in question is used extensively on government programs. Beech Aircraft Corporation operations include a variety of government contracts all of which do not have a long period of effort. Use of the equipment fluctuates with contractual requirements.

As a reimbursement to the Government for use on commercial programs, Beech Aircraft Corporation has paid rent in accordance with an accepted formula. In

the overall, we believe that the rent so calculated exceeds the actual time usage of the machines on commercial business.

Page 14—last paragraph

At the time of the review, the equipment questioned in this paragraph was located in our Tooling Department and due to the type of equipment had a low but vital usage at that particular time. This equipment is presently being used two full shifts per day on a government ordnance contract. This illustrates the difficulty of drawing accurate conclusions from an equipment review at any one time when the contractors government business is made up of various types of programs with relatively short production periods.

Page 29—first paragraph

In accordance with the contractual agreement, Beech Aircraft Corporation pays rental on government owned facilities used on commercial work. The rental payments are charged to the commercial programs utilizing the equipment.

Government contracts are in no way penalized by the use of government equipment on commercial programs. As a matter of fact, they are helped because the equipment is maintained and available when needed for government programs. The method of calculating rental due for commercial use, in our opinion, results in a higher cost to commercial programs than is justified by the hours of usage of the equipment. We have been willing to accept the contract formula, however, rather than set up an elaborate timekeeping system on each machine.

Page 56—second paragraph

The Contractor's records comply with ASPR requirements. We seek to perform our task at a budgeted cost and the inclusion of monetary values would increase these costs to the contractor and consequently to the government.

Page 57—second paragraph

The government review indicated they believed our procedures inadequate in that we do not physically inventory all materials both government and contractor owned. It is the Beech policy to periodically inventory government furnished materials and reconcile with the inventory record cards. We do physically inventory and reconcile all materials held in stores accounts. We do not, nor do most contractors, inventory work-in-process. The Beech work order system and parts control system provides adequate control of work-in-process inventory.

Third paragraph

A strict control is maintained on government furnished materials, which is reviewed by the Property Accountability Officer. It appears to the contractor that a physical inventory, to determine that government furnished material is on hand, fulfills accountability requirements. We do not believe it practical or required to physically inventory all contractor owned material. It must be pointed out that government furnished material is a minute portion of total material in the Beech plant.

Fourth paragraph

Beech purchases all materials for the account of the government in accordance with detail contract requirements and schedules. The Beech work order and parts control system accurately accounts for all materials after they are put in process. This system has been in use for over 25 years on both commercial and government contracts and has been found satisfactory on all types of contracts.

Beech does not maintain detail parts cost for the parts in work-in-process inventory. The work order system provides contract and lot costs which are adequate for the contractors purposes. Parts accountability is maintained and we do not believe pricing the parts adds any value or ensures any more accurate material accountability.

We believe our accounting procedures to be adequate to account for the use of the equipment and for materials furnished by the government. At the same time, our procedures provide for a great measure of economy and simplicity of records which result in less cost to the government. We believe that our interest in economy and efficiency of operation should be noted and that the regulations should stress such an approach.

In reviewing your report, we note some manufacturers have purchased from the government the facilities previously furnished to them. We have tried numerous times to purchase the government facilities in our plant. Each time we have

been informed that direct sale of the facilities to the contractor through negotiation was prohibited by either law or regulation. It appears to us that allowing contractors to purchase equipment already located in their facility would be advantageous to both the contractor and the government.

If additional information is needed regarding our portion of the referenced report, please feel free to call upon us.

Sincerely yours,

J. A. ELLIOTT.

ROHR CORP.,
Chula Vista, Calif., December 18, 1967.

Subject: General Accounting Office, Report to the Congress Regarding Government-Owned Property in Contractors' Plants B–140389.

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

(Attention: Mr. C. M. Bailey, Deputy Director.)

GENTLEMEN: We have received the subject report with great interest. Since we were one of the 21 defense contractors impartially selected for review, we were interested in the overall findings of the report, particularly those which may pertain to our company.

We do not believe that the report shows evidence of noncompliance on the part of Rohr Corporation no evidence of neglect on the part of the Government personnel responsible for the surveillance of Government property assigned to our plants. It would seem instead to indicate that, although Rohr complied with the ASPR and Facilities Contract clauses applicable at the time, the General Accounting Office Auditors were either (1) questioning our interpretation of the clauses or (2) questioning the propriety of the clauses themselves. This would seem quite evident in the recommendations set forth in Appendix II of the report.

Specifically the discrepancies noted at Rohr were in the area of utilization of the facilities provided. The first of these concerned a few items that were being used predominantely for commercial work.

During the review we explained to the auditing team that we did not schedule our workload by individual machines, but instead scheduled in banks of machines consisting of both Rohr-owner and Government-owned machines. This means that the first open machine gets the next job whether it be military or commercial, or whether the machine is Rohr-owned or Government-owned. Certainly there are times when the commercial work is heavy on the Government machines. However, there are also many Rohr-owned machines that are producing Government work 100% of the time due either to our method of scheduling or the inability of the older Government equipment to satisfactorily produce the parts. We believe that an integrated shop is far more efficient and economical than one where the machines would be segregated and the workload scheduled individually.

The second was the contractual provision which required the contractor to notify the contracting officer when non-Government use was expected to exceed 25 percent of the total use.

In the report it is stated that the contractual requirement to obtain OEP prior approval had been added to our contract in December, 1965. Although the "effective date" typed on our facilities contract is December 3, 1965, we did not receive this document for our signature until late March, 1966 and the fully executed copy of our contract was not mailed to us by the Government until May 5, 1966. Since the audit covered the period from February 1, 1966 through July 31, 1966 the requirement did not actually become effective until approximately two-thirds of the audit period had elapsed. This requirement has been, and still is, a very controversial matter between industry and the Government. We have been, and now are, complying with this requirement.

The third area of concern was the method used to obtain adequate machine utilization data.

At Rohr, we have a mechanized system which records the hours of use on major machinery on a machine-by-machine basis. This system is part of our cost accounting data collection system which accrues the many production costs automatically through the use of modern computerized equipment. The

machinery on which complete utilization records are maintained represents a minimum of 70 percent of all Government-owned equipment in our plants. An average use percentage based on the actual utilization of this group of equipment, is determined and the average percentage is applied to 100 percent of the Government equipment to compute our commercial use rental payment and to report our overall average utilization percentages. In the interest of economy, we are constantly striving to minimize administrative costs by utilizing existing established systems for as many reports as possible consistent, of course, with the reporting requirements. We believe our system is an exceptionally good one and we do not undertand why this was identified as a questionable example in the report.

The last problem concerned the type of inventory control required for special tooling.

Prior to the audit it was our interpretation that a perpetual inventory was sufficient to comply with the requirements as set forth in the ASPR. Therefore, we did not have a written procedure that directed our personnel to perform an annual physical inventory of special tooling. However, in January, 1967, we incorporated such a requirement into our standard practices and we are now complying with this directive.

In summary we believe that Rohr has abided by the terms of our contracts in an exemplary manner. We have maintained the equipment in better than average condition. Rental charges based on the ASPR established rates have been paid. Commercial usage percentages have been computed based on actual hours of use, which is considered by many a most equitable and economical method for such computation.

Unfortunately a straight statistical report can be very misleading when the myriad of other factors in the overall production picture are not considered.

In an effort to minimize our ratio of commercial work on Government equipment, we are acquiring capital facilities to the maximum of our ability to meet the increased demands. In addition we have returned and are continuing to make every effort to return Government-owned facilities when military requirements no longer exist.

We also recognize that economy in Government is of utmost importance. We would, therefore, hope that a thorough analysis of the contemplated changes in regulations be made to assure that the cost of their implementation does not exceed the savings which might be obtained.

Very truly yours,

F. E. McCreery,
Executive Vice President.

Heintz Division, Kelsey-Hayes Co.,
Philadelphia, Pa., December 19, 1967.

Your Ref: B–140389.

Mr. C. M. Bailey,
Deputy Director, Defense Division,
U.S. General Accounting Office, Washington, D.C.

Dear Mr. Bailey: Your letter of November 29, 1967 addressed to Mr. W. D. MacDonnell, President of Kelsey-Hayes Company, with reference to the recent report made by your office to the Congress relative to Government-owned facilities, has been forwarded to this office for reply.

We are enclosing copies of two letters from Mr. J. F. McMahon, dated December 9, 1966 and February 9, 1967, addressed to the GAO supervisory personnel who were responsible for the review at our plant in Philadelphia. These two letters cover many of the areas which are referred to in your report and, in addition, they state our position more clearly with regard to control of the facilities in our plant.

With particular reference to the marginal notes made in the copy of the report which we received from you, we submit the following comments for your consideration:—

IPE Not In Use—(Page 13): Utilization Surveys conducted by DCASR representatives within the past year have resulted in our declaring surplus nineteen (19) items covered by our Air Force Contract and thirty-seven (37) items covered by our Navy Contract. This is a continuing program and as additional items become surplus to our needs, they will also be disposed of.

Low Utilization of IPE—(Pages 14 & 15) : Please refer to Mr. G. Y. Meyer's letter of December 9, 1966 (copy attached) addressed to Mr. Leon Ruderman relative to Justification of Retention of Equipment.

Prior Approval Not Obtained, etc.—(Pages 17, 18 & 19) : We are still uncertain as to the meaning of the 25% criteria referred to in this Section and are presently working with DOD personnel in an attempt to comply with this requirement.

Improper Use of Government-Owned IPE—(Pages 19 & 20) : When we originally entered into the agreement with the Navy to use the Cold Forming facilities in the development and production of commercial items, there were no known military requirements. We realized that if we did not continue to advance in this relatively new method of extrusion we would not long be able to remain in this field. It would only have been a matter of time until the manufacturing and engineering "know-how" which we had developed up to that time would be lost.

When the Navy had a requirement for the 2.75" general purpose rocket heads in 1965, we *were* in a position to deliver at the indicated rate of production required, namely 15,000 to 52,000 heads per month. The difficulty in meeting delivery schedules was not due to our lack of capacity, but rather to the unrealistic scheduling at the beginning of the contract. While we ordered steel immediately upon being awarded the contract, and the steel was delivered at the earliest possible time, September 27, 1965 to be exact, the September requirement of 15,000 pieces was an impossible task. As a result of this, we were not able to fully meet the schedule during the early months of the contract.

At about the same time, we were advised that the Navy anticipated a requirement of a minimum of 100,000 of these rockets per month. It was at this time that we indicated that a certain few pieces of equipment (New Britain Gridleys and an Annealing Furnace) would have to be replaced in order to guarantee such high production schedules. Our records showed that from the beginning of the production at our plant, back in 1952, we had produced approximately five (5) million rocket heads which were manufactured using these machine tools and furnace. This high production was the principal reason that these machines had to be replaced, plus the fact that the annealing furnace, by its very nature, is a self-destructive unit. It should be mentioned here that the installation of the replacement furnace necessitated the expenditure of $25,000 by Kelsey-Hayes for brick and mortar to house this unit.

As noted in your report, we did continue commercial production at the same time that we produced the new rocket head requirements in 1965 and 1966, but we maintain that at no time did this production interfere with our delivery commitments of military items.

Another important consideration relating to this contract is that it would have been necessary, had there been no military requirements, for this facility to be placed on "stand-by" and maintained in a ready to use condition. We estimate that such maintenance costs during the nine year period would have been in excess of $2,000,000, which the Government would have had to pay to keep this facility on "stand-by". We would like to point out that during this period, not only was the Government relieved of this heavy maintenance charge, but the Heintz Division also paid rental in excess of $500,000 for the use of these facilities on commercial work.

Current Lease Terms Permit Inequities—(Pages 27 & 28): Consideration in the amount of $5,000 was agreed upon in payment of rental of support type equipment on which rental had not been paid. Copies of correspondence relating to this settlement are enclosed. A Procedure has been established with DCASR and DCAA for the payment of rental on this class of equipment for periods subsequent to the GAO review.

With reference to the paragraph relating to our Navy facility and the 2% rental clause contained therein, we submit that we have calculated and paid rental in accordance with the terms of our contract, ASPR notwithstanding.

General—(Pages 52, 53 & 54): The marginal notes on these pages made reference to special tooling used in the production of commercial components. During the review we referred the GAO representatives to either our customers or their respective Contracting Officers regarding control of and authorization to use any special tooling located in our plant.

We trust that the foregoing information, together with the attached correspondence, will enable you to document our position when you report back

to the Subcommittee on Economy in Government. Joint Economic Committee. Congress of the United States.

Very truly yours,

JOHN H. HORNBERGER.

HEINTZ DIVISION, KELSEY-HAYES CO.,
December 9, 1966.

Subject: Commercial Use of Government Facilities.

Mr. LEON RUDERMAN,
General Accounting Office,
Philadelphia, Pa.

DEAR MR. RUDERMAN: In 1949 the Heintz Manufacturing Company entered into a facilities contract with the U.S. Air Force to manufacture jet engine components for the General Electric Company to be used in the production of jet engines for the Military. At about the same time, Heintz also entered into production of engine parts for the Allison Division, General Motors Corporation. Allison, under a facilities contract with the Air Force, also arranged for the installation of facilities at Heintz. For the most part the original equipment supplied by the Government came from reserve stocks. Later on, some new machine tools, such as 'Bullards' and spot welders, were furnished. The engines for which Heintz was manufacturing components at that time included the J–33, J–35, J–47, J–71, and J–79. All applications of these engines, at that time, were Military. Allison also developed a turbo-prop engine known as the T–56 for which Heintz made many parts. This engine was used to power the C–130 transport, also a military aircraft.

For several years all of the parts manufactured by the Heintz Manufacturing Company were used for Military engines. Sometime during the '50s, Allison started producing a commercial version of the T–56, to be used in the Lockheed 'Electra,' a commercial passenger ship. This was the first Commercial application of a jet engine (turbo-prop) to be produced with the facilities supplied by the Air Force to Heintz. Agreement was reached through the Contracting Officer of our facility and the Contracting Officer at Allison to pay rental on the basis of a percentage of sales volume of the commercial parts produced. The extent of this production was very small and the rental was not substantial; however, it was paid quarterly in accordance with the contract.

During the mid '50s, Heintz entered into production of J–57 engine components for Pratt & Whitney for engines supplied to the U.S. Navy, and with Ford Motor Company for the production of the same engine parts for the Air Force.

The foregoing pretty much covers the history of the facilities contracts while the plant was operated as the Heintz Manufacturing Company.

In September, 1957, the Kelsey-Hayes Corporation, Detroit, Michigan, acquired the Heintz Manufacturing Company and assumed all contractural obligations in effect, including those with the various Department of Defense agencies. There was no change in the administration of the facilities contracts on the part of the contractor as a result of this change of ownership. The Heintz Division still sought to produce engine parts for the Military using the facilities available.

Aircraft engine production for the Defense Department in the late '50s softened considerably and the engine manufacturers, no doubt, sought further use of their product in Commercial aircraft. It must be remembered that these engines were almost identical to the Military versions and were made, for the most part, off of the same production tooling. In fact, parts could be made on the same line that would be used for either Military or Commercial aircraft.

Along about '61–'62, as more of the Heintz Division's customers were supplying commercial engines, the Heintz Division started to calculate the rental charge for commercial usage of our facilities on a utilization basis. The Heintz Division was unaware of any restrictions as to the percentage of commercial use on an individual piece of equipment so long as it paid rental in accordance with the contract. Therefore, Heintz (Division) could show usage on specific pieces of equipment which exceeded any given percentage for any particular period of time. If Heintz (Division) were required to schedule the use of equipment with a maximum limit of time it could be used on Commercial parts, this would mean many additional set-ups and would hamper the Production Department so much that it would seriously effect the cost of parts being produced. In the interest of good production practice it would seem rather ridiculous to tear down and set up, tear down and set up, just because a certain part coming

through the line at one time is for a Military engine and another part is for a Commercial version of the same engine.

We, therefore, submit that although usage on certain pieces of equipment exceeds the twenty-five per cent (25%) 'bogey' established by the Department of Defense as a criteria for retaining facilities under a Government contract that the interest of the Government is best served by permitting the contractor to use the facilities in the most productive manner possible in order to make parts at the lowest cost for the engine manufacturers and, at the same time, better utilize the facilities.

In addition to producing jet engine components since the inception of the facilities contracts, we have also supplied hardware to NASA for such programs as 'Mercury' and 'Apollo.' We have also produced parts for the 'Recruit' and the 'Bullpup' missile weapons systems. All of these parts were produced by using the facilities supplied by the Government, as well as Heintz-owned equipment. It should be pointed out that at no time has the Heintz Division solicited anything but aircraft or missile work for these facilities. The evolution of commercal jet aircraft after the development by the Military of the feasibility of jet flight was the factor which led to Heintz producing other than Military requirements with the equipment covered by the contracts. And, in accordance with the terms, the Heintz Division has paid rental for such usage.

The Management of the Heintz Division is of the firm opinion that the Government has benefited in many ways as a result of the investment it has made in equipment: lower piece prices for all parts produced because no depreciation charges were included in the costs; lower piece prices due to the increased volume as a result of commercial applications (Heintz has shipped approximately $150,000,000 of aircraft & missile components); the engineering and production know-how of Heintz that resulted in improved design and performance of the engines; the availability of a completely tooled and highly qualified supplier during two military involvements of the United States (Korea & Viet Nam.) As demonstrated in the past, it becomes necessary in certain national emergencies for the Government to take over numerous commercial jet aircraft to transport troops and materiel. This was true during the Cuban Crisis and also in Viet Nam. It can be said, without too much chance of contradiction, the commercial jets flying today represent a reserve force to be called upon by the Military in the event of such emergency. These factors, plus many others, certainly are to be considered in any evaluation of the performance of Heintz under the facility contracts included in your review.

The Management of the Heintz Division would be happy to discuss any phase of your study with any technical or other interested personnel from any branch of the Government. The Management of the Heintz Division wants to assure all concerned that at no time has Kelsey-Hayes or the Heintz Manufacturing Company its predecessor, gone out into the market to secure Commercial business, per se to be run over these facilities. It just so happens that the production of jet aircraft has gone from one hundred percent (100%) Military to a mixture of Military and Commercial. Right now the backlog in this line of the Division's business reflects a two-to-one ratio of Military to Commercial work. Essentially, it boils down to the fact that if we do not have the facilities to manufacture the Commercial parts for customers, we can not produce the Military requirements for these same customers. As your study will reveal, the Heintz Division is a very important supplier (in cases the sole source) to Pratt & Whitney, General Electric, Lycoming Division of Avco Corp., and the Allison Division, G.M.C., of parts for engines used in practically every Military aircraft & helicopter flying today.

The Management of the Heintz Division would welcome the opportunity to discuss any phase of your study with any interested Government Agency.

Very truly yours,

J. F. McMAHON, *Controller.*

HEINTZ DIVISION, KELSEY-HAYES CO.,
Philadelphia, Pa., February 9, 1967.

Mr. J. TKACHYK,
General Accounting Office,
Philadelphia, Pa.

DEAR MR. TKACHYK: During the meeting with Mr. Watson and the writer on Friday, January 27, 1967, you and members of your staff reviewed some of the highlights of the study which you made of the facility contracts which we have

with the Air Force and the Navy. Certain points were made by your group during this discussion and we will try to elaborate on our position and state the facts as we see them.

With regard to the surplusing of certain facilities under the Air Force contract, we welcome an opportunity to sustain our position and need with the appropriate technical people from D.O.D. We feel that we will be able to justify the retention of these facilities and assure you that if any pieces are not needed in our operation, we will certainly declare them surplus. As we pointed out, the production problems experienced in producing the various engine parts for which we have orders cause an imbalance in machine utilization. There are many reasons during the course of any given month why certain equipment shows a low utilization as opposed to any criteria which we might attempt to work to.

We feel that it would not be in the best interest of the Government to remove equipment from our facility which might detract from our capability of being an outstanding producer of jet engine components. The manufacture of parts for aircraft jet engines, whether they be for commercial or military use, requires the stame facilities, manufacturing "know-how", and in many instances the exact same tooling. As we have stated, our Company has in the past year either expended or committed in excess of $1,500,000 for manufacturing facilities to add to our production capabilities in this area. This money is being spent for machine tools to supplement the Government owned facilities and to round out a production complex that will produce quality parts at minimum cost to our customers. Much more, no doubt, will be appropriated as the need arises.

As you know, most of the equipment covered by the Air Force contract is in excess of ten years old, and any equipment that has been acquired under this contract since 1957 has been used equipment, either from other locations or out of surplus stock. In many cases, this equipment was brought into our plant at our expense, overhauled, and put into operating condition. When we used them for commercial parts, we, of course, paid rent. When used for military parts, the Government has had the benefit of the equipment at no cost to them for the removal from the previous locations and the reinstallation at our plant.

The instances that you pointed out to us where we were not in complete compliance with the contract will be given our attention and we will take the necessary steps to comply with the terms and conditions in the future.

During our discussion of the Navy Facility, the statement was made that we were producing commercial parts during the same period of time that the Navy requirements were not being met. It was implied that this was due to the fact that we were giving priority to the commercial activity on equipment which should have been producing Navy parts. This is absolutely not the case. The equipment referred to that was being used on commercial work could not by any stretch of the imagination have held the tolerances required to produce the 2.75'' general purpose rocket. The main reason for our not being able to meet the requirements of the Navy during the first production contract was that the delivery schedule in the contract was unrealistic. We actually received the "go ahead" from the Navy in the middle of August 1965. We immediately ordered the steel from the mill. The first shipment was received in our plant on September 27, 1965, and yet the delivery requirement of the contract was that we ship 15,000 completed rocket heads during September. This, as you can see, was a physical impossibility. When we finished the production of the first contract, which was in April 1966, we immediately began shipping on the second production contract. This would not have been possible, had we not released orders to the mill at least six weeks in advance of having been awarded the second quantity, and by our action we guaranteed the continuation of deliveries between the two buys. This certainly demonstrates that we were interested in filling the Navy requirements, even to the extent of ordering material without any firm commitment from the Navy.

It should also be stated that during this same period of time, we were producing the 2.75'' rocket base blanks to be used in the manufacture of the pearlitic malleable rocket, which was one of the ten top priority items on the Department of Defense list for Vietnam. This production has now increased to the extent that we shipped 263,000 units in the month of January 1967. While we do not make the finished product, we supply the base to at least ten important producers of this rocket throughout the country. It should be pointed out that we developed the process to produce this part in conjunction with the Frankford Arsenal to fulfill a demand which was not able to be supplied by the malleable iron foundry sources in this country.

With regards to the replacement of the five New Britain Gridley lathes and the Despatch furnace, at the time our request was made for this replacement, all indications which we had from the Navy were that there would be a requirement of unknown duration for the production of the 2.75" general purpose rocket at the rate of 100,000 per month. It was our opinion that it would be in the best interest of the Government to replace the above equipment as we could not guarantee such high production quantities with the existing equipment.

You asked for our position as to the Navy continuing to maintain the facility contract with us. We would like to point out that the equipment under this contract is special purpose equipment with a limited number of applications. Over the several years we have worked with the cold forming process, we have been able to develop commercial applications making use of much of the facility. We feel that the Navy should continue on this basis since we have proven that we could produce military items on short notice without having to go through the reactivation expense and the start-up time required to place heavy production equipment back into operation. At the same time there has been no cost to the Navy since 1958 for the maintenance of this facility on a stand-by basis. For your information, these costs would have exceeded $200,000 per year based on prior amendments to the contract. During this same period of time, we paid over $500,000 in the form of rental for the commercial application of these facilities.

We recognize the right of the Navy to review at any time their commitment under this contract, but we respectfully submit that any changes to the present agreement would have to be agreeable to both parties.

If you feel that there is any further information we can supply that will be helpful to you to completely evaluate our position concerning both the Air Force and Navy contracts, please do not hesitate to contact the writer.

Very truly yours,

JOSEPH F. MCMAHON, *Controller.*

HEINTZ DIVISION, KELSEY-HAYES CO.,
December 9, 1966.

Subject: Justification of Retention of Equipment.

Mr. LEON RUDERMAN,
General Accounting Office,
Philadephia, Pa.

DEAR MR. RUDERMAN: The Heintz Division of the Kelsey-Hayes Company is a complex and diversified jobbing shop. Over the years, the Aircraft & Defense Products Department has had many jobs, both of long and short duration, requiring all types of equipment and many varied processes. Since the Heintz Division is not a prime contractor and is bidding on a very competitive basis as a means of giving the Government the best possible cost, the Heintz Division can not, at any time, forecast or commit any particular unit or group of equipment to any specified utilization. In general, the Heintz Division maintains a facility that is flexible and equipment usage that past experience tells is a good, useful, and competitive resource to the prime contractors who, in turn, can supply the Government with quality products at competitive prices.

By nature of this type of operation, there are some problems in scheduling since many jobs require specialized set-ups and specialized tooling. Due to the many and varied reasons forthcoming from the customer, these jobs are in a continual state of flux; i.e., engineering changes, testing, supply problems, etc. As this indicates, the Heintz Division is at the beck and call of its customers and this leaves very little room for definite determination of machine utilization over a prolonged period of time. A good job is done by scheduling equipment in such manner as to limit the cost to any particular job. Long set-ups and specialized set-ups are changed as infrequently as possible; i.e., low utilization but in the interest of efficiency and cost this is the proper method of operating. Short set-ups and simple set-ups are grouped together and these are made as often as possible. This results in a higher utilization of that particular equipment.

Another area of equipment usage is that of repair and correction of machine tools, fixtures, dies, etc. This equipment is used as "support" to the actual production equipment and, as such, utilization is not recorded.

Still another area which utilizes consigned equipment is the Research & Development Department. This particular Department does prototype and development work which, again, is impossible to record. The usage is almost continuous and a considerable amount of the time is used in specialized setting-up, checking of processes and results, and the establishment of new processes. There is no machine assignment, but rather a continual group-decision process as to the operations to be performed, the equipment on which the work is to be done, when it is to be scheduled, etc., as each new detail is brought through the line.

At the same time there is this facet of the operations that contributes considerably to down-time on all equipment. This is the area of maintenance and waiting for approval of parts running across the equipment. This, too, is not recorded.

As evidenced by this information, the Heintz Division can meet general usage requirements on the various classifications of equipment and can establish an average monthly usage as follows:

	Hours per month average
"Cutmasters" and "Man-u-trols"	50
Seam and Spotwelders	20
Radial drills	50
Milling machines	50
Drilling machines	30
Presses	[1] 25
Lathes	30
Miscellaneous	[2] ?

[1] High set-up, slow operational time.
[2] "Support" equipment.

Spotwelders and seamwelders are normally used on specialized set-ups and from experience it has been found they move considerably faster than the equipment supplying the parts to the welders. Since the set-ups are difficult and it is necessary to maintain an absolute assurance of good welding, the equipment shows less utilization than would be expected.

This same condition exists in the other areas of small equipment, such as, lathes, drills, etc. The equipment is used mainly for support and in-process lines which are dependent on the major equipment for parts supply and speed of operation.

Attached is a listing of various pieces of equipment with notations describing their particular job assignments and/or condition.

The Management of the Heintz Division believes that the Government has realized many benefits from the usage of the facilities located here and welcomes the opportunity to discuss your study with any interested Government offices.

Very truly yours,

C. Y. MEYER, JR.,
Vice President—Manufacturing.

HEINTZ DIVISION, KELSEY-HAYES CO.,
June 22, 1967.

Subject: Contract AF 33 (657) 15658.

MR. HARRY ORTH,
Contracting Officer, Defense Contract, Administration Services Region, Philadelphia, Pa.

DEAR MR. ORTH: We are in receipt of your letter of June 21, 1967, with reference to the payment of rental for the support equipment on the subject contract from March 1961 through July 1966. Accordingly, we are enclosing our check payable to the Treasurer of the United States in the amount of $5,000.00. This is in settlement of all past due rental on this support equipment during this period.

We appreciate your cooperation in finalizing this matter.

Very truly yours,

JOSEPH F. MCMAHON,
Controller.

DEFENSE SUPPLY AGENCY,
DEFENSE CONTRACT ADMINISTRATION SERVICES REGION,
June 21, 1967.

HEINTZ DIVISION, KELSEY-HAYES CO.,
Philadelphia, Pa.

(Attention: Mr. Joseph F. McMahon, Controller.)

GENTLEMEN: Reference is made to your letter dated June 16, 1967, offering $5,000.00 in settlement of all past rental on support equipment under Contract AF 33(600)42330 during the period March 1961 through July 1966.

Your offer has been reviewed and has been determined as being fair and reasonable. It further is accepted as complete settlement of all past rental due on the support equipment during the period involved.

Accordingly, it is requested that your check payable to the Treasurer of the United States in the amount of $5,000.00 be forwarded without delay.

Sincerely yours,

HARRY W. ORTH,
Administrative Contracting Officer.

BLADES MANUFACTURING CORP.,
Rector, Ark., December 15, 1967.

Re (B-140389) Report to the Congress—Need for improvements in controls over Government-owned Property in Contractors' plants.

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

(Attention: C. M. Bailey, Deputy Director, Defense Division.)

GENTLEMEN: In compliance with your request of November 29, Blades Manufacturing Corporation is pleased to submit its comment to that provision of the Report to the Congress on the need for improvements in controls over Government-owned property, which you indicated is applicable. Cited is that provision of the Report which you have referenced by marginal check, followed by Blade's comment.

"We noted instances at three other contractor locations where machines were used for commercial work without obtaining prior approval as required by facilities contracts." Report to the Congress, "Need for improvements in controls over Government-owned property in contractor's plants," p. 29, November 24, 1967.

Under the terms of Blades' present facility contract, the Contractor is entitled to 25% commercial use of Government-owned machinery during any rental period after obtaining authority from ACO. In order to so utilize such machinery an appropriate rental fee must be paid to the Government.

Blades Manufacturing Corporation can assure you that should the occasion arise in the future, whereby Blades finds it necessary to utilize Government-owned machinery for commercial use, authority to so use such machinery will be requested from the ACO. If authority is granted for Blades to utilize Government-owned machinery, such machinery will not be used more than the period of time which is allotted by the ACO for commercial use. Furthermore, the appropriate rental fee will be paid.

Respectfully,

HARRY C. BON, JR.

THE UNIVERSITY OF CHICAGO,
OFFICE OF THE VICE PRESIDENT FOR BUSINESS AND FINANCE,
Chicago, Ill., December 11, 1967.

Mr. C. M. BAILEY,
Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR DIRECTOR BAILEY: We have reviewed the Report to the Congress forwarded to us with your letter of November 29, entitled "Need for Improvements in Controls Over Government-Owned Properties in Contractors' Plants." Our

review pertained primarily to those items identified by marginal notations as applicable to the University of Chicago. Following are our specific comments:

1. On page 60 of the report you commented that control over the taking of physical inventories was inadequate because procedures do not provide for the appropriate segregation of duties of personnel. We agree that this is a valid criticism and procedures have been revised so that required physical inventories will now be taken by persons having no responsibility for custody of the equipment.

2. On page 60 you indicated that several items of equipment were purchased in 1966 without "required screening at DIPEC." It is our feeling that failure to obtain such screening was due to misunderstandings concerning when screening was required. In any event, procedures have now been revised by the various DOD agencies to assure such screening and we are complying with these revised requirements.

3. At the bottom of page 60 and the top of page 61 is the comment that IPE purchased by universities was not reported to DIPEC. As in the previous comment, we were not aware that in failing to report certain purchases of equipment we were not complying with ASPR. Our procedures have been revised and all IPE is being reported promptly to DIPEC via the Agency.

4. On page 61 is the comment that title to several pieces of equipment was transferred to the University while DIPEC considered such equipment in short or critical supply. We are unable to effectively comment on this criticism since the determination of the need for various types of equipment by other DOD agencies can only be made by such agencies. It should be mentioned, however, that the fact that title was transferred to the University does not in any sense mean that the equipment was excess to government research being conducted by the University.

5. On page 59 is the comment that financial control accounts were not required to be maintained by universities for IPE and special test equipment, nor were they being maintained by The University of Chicago. We do not agree with this criticism. Actually, financial control accounts are being maintained for government equipment. Admittedly, these control accounts are not maintained independent of the individual responsible for the detail inventory records and, therefore, the procedure does not conform to classic internal control afforded by segregation of duties. It is, however, our belief that adequate financial control does exist over government-owned equipment. Although the establishment of an independent financial control account would, in theory, provide additional control, it is our belief that the special problems concerning the proper identification of government equipment are such as to require considerable involvement by persons closely identified with this equipment. As a result, little if any additional control would, in fact, be established. We would be pleased to discuss this matter in detail with your representatives to see whether additional control can be established in a practical manner. Insofar as we know, no equipment losses have taken place as a result of any inadequacy in financial controls.

We appreciate the opportunity of responding to this report and, if we can be of further assistance, please let us know.

Sincerely,

G. L. LEE, Jr.

SELB MANUFACTURING CO.,
Walnut Ridge, Ark., December 15, 1967.

Re (B-140389) Report to the Congress—Need for improvements in controls over Government-owned Property in Contractor's Plants.

U.S. GENERAL ACCOUNTING OFFICE,
Defense Division,
Washington, D.C.

(Attention: C. M. Bailey, Deputy Director, Defense Division.)

GENTLEMEN: In compliance with your request of November 29, Selb Manufacturing Company is pleased to submit its comments to those provisions of the Report to the Congress on the need for improvements in controls over Government-owned property, which you indicate as applicable. Cited are those specific provisions which you have referenced by marginal check followed by Selb's comments to each.

"We questioned retention of 133 items of IPE, estimated to cost $3.3 million, which had not been in use for extended periods of time. On the basis of our review

of utilization surveys conducted by Government property officials, we concluded that in many cases undue reliance had been placed on the prospect of future production creating valid needs or desirable utilization levels for the IPE reviewed as illustrated below." Report to the Congress, "*Need for Improvements in Controls Over Government-Owned Property in Contractor's Plants.*" p. 13, November 24, 1967.

Selb Manufacturing Company realizes that, at all times, the proper reports as to machine idle time were not submitted.

At the present time, Selb has an ample supply of material which requires machining under Government facility contracts. As a result, all Government-owned machines are in operation and are expected to remain so for quite some time.

Selb Manufacturing Company can assure you that, henceforth, all proper procedures will be followed as to the reporting of Government machinery which is of no more use in Selbs manufacturing operation.

"Our review established that, of the 17 contractors examined, only five contractors maintained adequately comprehensive machine-by-machine utilization data. Two of the five contractors accumulated the data by manual postings and the other three through mechanized procedures (tab card system). One of the contractors was converting from mechanized procedures to an electronic data collection system designed for manufacturing industries. Included among the applications of the electronics data collection system is 'machine and tool utilization,' and we observed that three of the remaining 12 contractors reviewed were in the process of installing similar systems at the time of our review." Id. p. 22

At the time of Government inspection of facility Contractors, Selb Manufacturing Company was in the process of converting from an over all utilization reporting system to a machine-by-machine reporting system. Due to unfamiliarity with the new system in the plant, records, at first, were not kept as accurately as perhaps they might have been. However, now that Selb's employees are more familiar with the machine-by-machine reporting system, Selb Manufacturing Company feels that such a system is much more accurate and positive than an over all reporting system. Therefore, Selb Manufacturing Company will continue to utilize comprehensive machine-by-machine data in the future to report machine usage, as recommended by the Comptroller General.

"We noted instances at three contractor locations where machines were used for commercial work without obtaining prior approval as required by the facilities contracts." Id. p. 29

Under the terms of Selb's present facility contract, the Contractor is entitled to 25% commercial use of Government-owned machinery during any rental period. In order to use Government-owned machinery, permission must be obtained from the ACO and appropriate rent must be paid to the Government.

Selb Manufacturing Company can assure you that if the occasion arises in the future, whereby Selb finds it necessary to utilize Government-owned machinery for commercial use, authority to so use such machinery will be requested from the ACO.

If authority is granted for Selb to utilize Government-owned machinery, such machinery will not be used more than the period of time which is allotted by the ACO, and appropriate rent will be paid for the use of such machinery.

"The maintenance of utilization data for Government-owned IPE, as recommended in our discussion of utilization practices, would provide the basis to more accurately compute rent on an item-by-item basis. The feasibility of maintaining use records, machine-by-machine, has been established by five contractors included in our review, and one of the contractors was computing rent in the manner in which we suggested, as detailed above. Moreover, such a procedure would eliminate discrimination in rates charged to different contractors because the credits would be uniformly computed for each item based on actual machine hours used. Broad allocations are appropriate in those cases where Government versus commercial machine usage cannot be tabulated, such as for certain common support equipment or for IPE below an established value where no utilization records are maintained. Further, the tabulation of utilization data could be expected to disclose commercial use for which approval had not been requested and thus supplement the present complete reliance on floor checks." Id.p.30

Selb Manufacturing Company concurs with the Comptroller General's conclusion that rent on Government-owned machinery should be computed on an

item-by-item basis. As was stated previously in this letter, Selb presently computes machine time used on a machine-by-machine basis and has found it quite satisfactory. Selb feels that computing rent on an item-by-item basis would prove equally satisfactory and, as the Comptroller General has stated, would eliminate discrimination in rates charged to different contractors.

"Property Administrators' Surveillance and Approval of Systems.—Our review showed that the property administrator had withheld approval of systems employed at five of the 19 contractors in our review. Further, we found that ASPR does not provide an incentive for the contractor to maintain an approved system." Id.p.64

Selb Manufacturing Company has implemented procedures for maintenance of Government-owned equipment and for accounting of Government property, which have been approved by the ACO. In the future Selb will continue to comply with these procedures.

Respectfully,

HARRY C. BON, Jr.

RAYTHEON CO.,
Lexington, Mass., December 14, 1967.

Mr. C. M. BAILEY,
Deputy Director, Defense Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. BAILEY: Thank you for the opportunity to review the General Accounting Office Report (B–140389) to the Congress on the subject of control of Government-owned property at contractors' plants. I have read the report taking particular note of those sections which you have identified as being applicable to Raytheon Company. As an attachment to this letter, I have included specific comments to those sections in response to your letter of November 29, 1967.

In this covering letter, I should like to set forth a few basic considerations which, from industry's viewpoint, pertain to the subject of the GAO Report. Raytheon, along with hundreds of other major suppliers to the Department of Defense, has a firm policy of conducting its defense business in accordance with the requirements of ASPR and other Government regulations. In this process it is not unusual to be faced with conflicting requirements which dictate a choice on the part of the contractor. This choice can only be made in favor of what appears to be the practical solution based on the facts available at the time the decision must be made.

As an example, we have contractual requirements to maintain a production capability of a certain quantity of HAWK missiles per month. Our capability is entirely dependent upon the availability of the special tooling and test equipment initially acquired for production of this equipment even though it is not presently being used and there is no positive assurance that it will ever be used. As we understand it, the GAO Report's recommendation is that we should declare this special equipment as surplus because of a low utilization factor. We have, however, elected to retain this equipment since we consider our contractual requirement both proper and practical. Obviously, with the world situation as it is, the Department of Defense cannot afford to destroy a quick-reaction capability for critical weapons such as the HAWK when the cost of maintaining such a capability is miniscule compared to the cost of the system itself.

It also appears to us that a more practical approach to the treatment of special test equipment within the DIPEC could be considered. We have no fault to find with the speed with which DIPEC responds to our requests for screening. We do have a problem, however, with some of the equipment we have received.

Special test equipment, by its very nature, generally receives very heavy use during the period of performance of the contract for which it was designed. It is a type of equipment which can and does wear out. We would recommend serious consideration be given to setting a limitation on the age of test equipment which is maintained by the DIPEC. The cost saving to the Government in having this kind of equipment available for reuse by contractors is often outweighed by the cost of collecting, refurbishing, storing and maintaining it before it can be considered for a new program with perhaps indefinite life requirements.

I am sure that the specific comments contained in the attachment to this letter will clarify in greater detail more of the problems faced by contractors who are

conscientiously attempting to comply with all of the requirements. We believe that we have a good property control system here at Raytheon. We are in the process of making it better, and I assure you we will continue to strive for improvement in this very important area.

I hope this reply is responsive to your request. Should you need any additional information, please feel free to contact Mr. Stephen W. Rowen, who is our Corporate Director of Government Contracts.

Sincerely,

THOMAS L. PHILLIPS.

This attachment identifies each section of the General Accounting Office Report by page and paragraph number with the Raytheon position stated directly beneath.

Raytheon maintains its control of Government property through the use of Property Administrators at each plant or laboratory. The basic policy for the administration of Government property is issued by the Corporate Director of Government Contracts in the form of a Government Property Manual. Each division implements the basic policy instructions with detailed procedures suited to the particular location.

Page 16, para. 4

(a) Raytheon Company had not screened the Defense Industrial Property and Equipment Center (DIPEC).

Partial Concurrence: The screening of DIPEC for items of special test equipment did not become a contractual requirement until early 1966. Upon receipt of the initial contracts requiring DIPEC screening, procedures were drafted to insure proper compliance with the new requirements. There was, however, an interim time when items of special test equipment were procured and screening of DIPEC had not been accomplished. We now have procedures to insure that all items of special test equipment valued at $1000 or more are being screened through DIPEC and certificates of nonavailability are received prior to the placing of any purchase orders for special test equipment.

Page 16, para. 5

(b) Raytheon Company had over 2400 items of test equipment on hand which were not presently needed but were being held for possible future use.

Nonconcurrence: The 2400 items which were stated as being held for future use were, in fact, items of test equipment which were required to maintain a specific production capability for the HAWK Program; including Basic HAWK, Self-Propelled HAWK, HAWK Improvement Program and Saudi Arabian HAWK. This requirement is contained in Contract No. DA-19-020-ORD-4030, Modifications 16 and 25. There may have been a misunderstanding concerning equipment not presently being used, but being held in reserve as spares. This equipment may have little utilization, but is necessary to maintain a pool of spares to replace equipment requiring calibration or repair. Whenever a determination is made that any item becomes excess to the needs of production and spares requirements, the proper disposition action is initiated through the local Government Property Administrator, and in turn to DIPEC is applicable.

The GAO Report states that these items were not reported to DIPEC. After a careful review, the greater percentage of items were found to be under $1000 in value and, therefore, not reportable to DIPEC.

(c) No system of use data had been maintained for industrial plant equipment.

Concurrence: We do not consider that it is the general industry practice to record and collect usage data on test equipment of this type through a formal and rigid reporting system. It has been determined that the cost associated with the initiation and maintenance of such a system would exceed the benefits derived. We will periodically review this position considering future business and the types of equipment involved.

Page 50, para. 2

(d) Policies provide for a complete inventory of special tooling at least once a year. We found that physical inventories had been taken only at the completion of contracts. Therefore, yearly inventories were not accomplished in accordance with the procedures.

Concurrence: A physical inventory of special tooling is taken at the completion or termination of a contract. However, it should be noted that production equipment and plant equipment are inventoried on a cyclical basis. We are currently undertaking a program to inventory special tooling during the Year 1968. Special tooling history cards are also maintained in accordance with ASPR requirements and IBM reports are available reflecting additional information that may be desired concerning the special tooling.

Page 50, para. 7

(e) There were occasions, however, when the prime contractor had requested the subcontractor to verify special tooling in its custody.

Concurrence: We are pleased that the GAO Report takes note of the fact that we maintain a policy of periodically requiring a physical inventory of special tooling at subcontractors' plants to be taken by the vendor and that the results of such inventory are reported to Raytheon. IBM reports are maintained to reflect the inventory verification as well as tool history records containing the subcontractor's name and the tools for which he is accountable.

Page 56, para. 2

MATERIAL

(f) Financial accounting controls not maintained.

Nonconcurrence: Raytheon Company agrees that individual stock record cards as maintained by Inventory Control personnel for material in stores do not reflect the total value of the quantity of items in the stockroom according to the data reflected on the stock record card.

There is no requirement in ASPR to include such information on stock cards, nor has Raytheon found it necessary to establish a duplicate set of accounting records in this manner. Physical movement of material from such stockrooms is recorded on material control documents by personnel within the inventory control area. The pricing of such action is performed on a controlled basis by personnel within the Controller's Department to insure that the dollars for cost purposes flow with the material from stores to the appropriate account established to collect costs for the item being manufactured and/or shipped.

Page 57, para. 2

(g) Physical inventory taking is ineffective.

Nonconcurrence: Physical inventory of Government material at the Andover Plant is accomplished on a cyclical basis by storekeepers. The stock record cards are maintained by the Inventory Control Section, and the personnel associated with this section are separate and not connected with the storekeepers who take the inventory. Raytheon also maintains a separate internal audit staff that periodically verifies physical inventories of Government material. The physical inventory procedures are so structured that one individual may not make any improper adjustments, and any adjustment required is reviewed by responsible management.

APPENDIX 5

REPORT TO THE CONGRESS OF THE UNITED STATES—IMPROVED INVENTORY CONTROLS NEEDED FOR THE DEPARTMENTS OF THE ARMY, NAVY, AND AIR FORCE AND THE DEFENSE SUPPLY AGENCY, DEPARTMENT OF DEFENSE BY THE COMPTROLLER GENERAL OF THE UNITED STATES

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., November 14, 1967.

B-146828.

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

The General Accounting Office has reviewed controls over depot inventories in the Department of Defense and found a need for substantial improvements. Our review was directed primarily toward examining into the accuracy of the inventory records for depot stocks held by the Departments of the Army, Navy, and Air Force and the Defense Supply Agency.

This report presents our conclusion that increased emphasis and attention is needed at all levels of management to improve the accuracy, and therefore the usefulness, of inventory stock records.

During fiscal years 1965 and 1966, stock records of selected depot inventories—averaging in value about $10.4 billion—had to be adjusted up or down an average of $2.4 billion annually in order to bring them into agreement with the physical inventory quantities.

We believe that these inaccuracies in the inventory stock records resulted from inadequate control over documentation affecting inventory records as well as over the physical assets. Such inaccuracies would, of course, adversely affect any supply system's responsiveness to requisitions for material. Only when inventory records are accurate and current can they be relied upon for determining whether requisitions can be filled or whether procurements or repair actions are necessary.

In commenting on our review, Department of Defense officials agreed, in general, with our findings and proposals for corrective actions. We were advised that each of the military services and the Defense Supply Agency had initiated specific programs to eliminate the inventory control problems discussed in this report and were installing new procedures designed to provide more accurate inventory controls. We were told that the installation of the new procedures had advanced to the point where results could be expected shortly.

We are reporting this matter to the Congress so that it may be apprised of the need for improvements in the control of depot inventories and of the actions that the Department of Defense has indicated the military services and the Defense Supply Agency have taken or planned to improve and strengthen the management controls over these inventories.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; and the Director, Defense Supply Agency.

ELMER B. STAATS,
Comptroller General of the United States.

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REPORT ON IMPROVED INVENTORY CONTROLS NEEDED FOR THE DEPARTMENTS OF THE ARMY, NAVY, AND AIR FORCE AND THE DEFENSE SUPPLY AGENCY, DEPARTMENT OF DEFENSE

INTRODUCTION

The General Accounting Office has performed a limited review of the effectiveness of inventory controls in the Department of Defense. Our review was directed primarily toward examining into the accuracy of the inventory records for depot stocks held by the Departments of the Army, Navy, and Air Force and the Defense Supply Agency. Also, it was concerned with the degree of compliance at selected locations, with the Departments' and the Agency's prescribed policies and procedures for maintaining stock record accuracy through scheduled physical inventory programs, and with the extent to which inadequate physical inventory practices and the associated adjustment of inventory records may have contributed to any record inaccuracies at those locations.

This review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Our field work was conducted during the period June 1966 to January 1967 at selected activities of the Departments of the Army, Navy, and Air Force and the Defense Supply Agency. Additional information concerning the scope of our review is shown on page 26.

BACKGROUND

The military departments' task of supply management is to provide materiel support to their organizations at a minimum cost. So that supply economy may be achieved, no more money should be invested in inventories than is necessary for effective support. If this objective is to be attained, accurate and current records of quantities of specific items in the inventory must be available for use in determining whether user requisitions can be satisfied and whether, on the basis of requirements computations, procurement actions are necessary. This entails controlling and accounting for an enormous number of items and an even greater number of transactions which daily affect the status of items in the inventory.

The basic authority which sets forth the policy to be followed by the Department of Defense in establishing control of and accounting for its inventory is provided for under sections 2202 and 2701 of Title 10, United States Code. Through these sections the Secretary of Defense is directed to prescribe regulations which will achieve the efficient, economical, and practical operation of an integrated supply system to meet the needs of the military departments without duplicate or overlapping operations or functions and to have records of major equipment items and stored supplies of the military departments maintained on both a quantitative and a monetary basis so far as practicable.

To accomplish this task, the Secretary of Defense has assigned the responsibility for inventory management to his Assistant Secretary for Installations and Logistics. As a part of its implementation of the above policy, the Department of Defense has directed that all items held in stock be physically inventoried not less than once each year either by full count or by statistical sampling techniques; however, exceptions are permitted for slow-moving items and other items, provided that storage conditions and lack of movement ensure adequate physical protection and accuracy of records. Also, the Department of Defense has directed that inventory records and reports be reconciled promptly on the basis of physical inventories.

Within the Department of Defense the basic record of accountability which shows by item the receipt, issue, adjustment, disposal actions, balances on hand, and other supply management data is the stock record account. The Departments now generally maintain this record of their commodities on automatic data processing equipment. Effectiveness of overall supply management is contingent upon the accuracy of stock records and financial records. In an effort to attain this accuracy, periodic physical inventories are required to be performed and the stock record balances adjusted to the actual quantities on hand.

Each of the three military departments and the Defense Supply Agency have published policies and procedures which direct the frequency for, and the procedures to be followed in, taking scheduled physical inventories of depot stocks. These procedures generally require a complete count at least annually of those items which have a high-dollar value, either because of unit cost or because of a large quantity of annual issues, and of those items requiring special attention or which are classified or pilferable. For other items the Departments, in most cases, direct that the physical inventories be accomplished by means of statistically sampling lots comprised of similar items. The results of the physical inventories by statistical sampling must meet prescribed accuracy objectives or the items sampled are subjected to a complete physical count.

The procedures of the military departments provide for special physical inventories which are one-time, unscheduled physical counts of one or more line items (1) when the stock record shows a balance on hand but the warehouse indicates no stock physically available to fill a request for the material (hereinafter referred to as warehouse denial), (2) to correct a suspected discrepancy between the recorded stock record balance and the assets on hand, and (3) on request from the inventory manager or another appropriate official. Therefore, these inventories are recognized by all the supply components of the Department of Defense to be emergency measures which are not meant to substitute for the scheduled physical inventory program.

To provide assurance that actual physical locations of stock correctly identified in the appropriate records, the commands require either a complete or a statistical sample comparison of the recorded location of stock with the physical location or vice versa. They also prescribe that prompt reconcilliations of the stock records with the physical counts be accomplished and that necessary adjustments be made to the stock records. Likewise the commands provide for suitable research to be conducted in an effort to determine causes for differences revealed by physical inventories and to make necessary procedural changes to preclude the recurrence of the problems.

Each of the military departments has established separate organizations that are responsible for the logistical mission and supply system management within the department. The principal organizational elements that carry out the functions necessary to that accomplishment are the inventory control point (ICP), stock control activity, and storage activity.

An ICP is responsible for systemwide direction and control of a number of categories of similar commodities. This responsibility includes development of worldwide quantitative and monetary inventory data. The stock control activity is responsible for maintaining inventory data on the quantity, ownership, location, etc., to determine availability of material for issue and to facilitate distribution and management of material. The storage activity is resopnsible for physical handling of the material incident to receipt, storage, and issue. These elements may be combined for groups of items in one organization at one location or grouped geographically in various combinations.

Inventories in the Department of Defense are valued at about $37 billion, excluding aircraft, ships, and supplies and equipment in the hands of using units. Our report pertains to approximately $10.4 billion worth of these inventories,

representing equipment and supplies held in major depots of the military departments. (See app. II.) This does not include inventories of vehicles and ammunition. The inventories included in our review are referred to as depot inventories throughout this report.

FINDINGS

Need for Improvements in the Control of Inventories

Increased emphasis and attention are needed at all management levels, in our opinion, to improve the reliability and usefulness of the inventory records for control of depot inventories within the Department of Defense. We found that substantive differences existed between stock record balances and the actual quantities of items in inventories throughout the depot supply systems.

The depot supply activities in the Department of Defense adjusted inventory records up or down an average of $2.4 billion annually in fiscal years 1965 and 1966, in order to bring the stock record balances into agreement with physical inventory quantities. The depot inventory for these 2 years averaged about $10.4 billion. The ratio of annual gross adjustment to total inventory for fiscal years 1965 and 1966 was approximately 29 and 18 percent, respectively.[1] The existence of this degree of inaccuracy and unreliability in the inventory records is not, in our opinion, conducive to the maintenance of effective and economical supply support.

The frequent and voluminous adjustments made to the stock records by the supply activities in an effort to correct the records were due, in large part, to an exceedingly large number of unscheduled special inventories. These special inventories, which were conducted primarily because of the lack of reliability of the records, frequently restricted the supply activities' capability to perform prescribed scheduled physical inventories. We found that, with the exception of the Air Force, the regularly scheduled physical inventories frequently were not taken and that, when taken, the results frequently revealed inaccurate stock records to an extent not considered acceptable by the supply activities' own standards.

Many factors have contributed to the existence of limited control over inventories. One of the primary factors, in our opinion, was the magnitude of inaccurate stock locator cards at the inventory locations. This not only had an adverse effect on supply actions but generated the need for conducting many of the special inventories. Other factors, which we feel contributed to inadequate inventory control, as reflected by the significant amount of inventory adjustments, were that:

1. Physical inventories were frequently made without proper control of documentation for receipts and issues occurring during the period of the inventory.
2. Proper reconciliation between the physical inventory count and the stock records was often not made at the completion of these inventories and causes of the imbalances were not determined.
3. Prescribed inventory control procedures were not always followed by supply personnel.

Details of the more significant conditions noted during our review are discussed in the following sections.

Significant differences between stock record balances and items in depot inventories

During our review we found that significant differences existed between stock record balances and actual quantities of items in depot inventories. This is demonstrated by the high ratio of gross dollar adjustments to the average annual inventory. In fiscal years 1965 and 1966 this ratio ranged from about 13 percent to 60 percent for Department of Defense (DOD) wholesale supply services. The percentages for each of the DOD services are shown in appendix II.

At the two Army depots included in our review, we found that significant imbalances existed between the accountable stock record balances maintained

[1] One of the major factors contributing to this decline in percentage of gross adjustment was the Army Aviation Materiel Command's (AVCOM) reduction of gross adjustments from $817 million in fiscal year 1965 to $145 million in 1966. The gross adjustment in 1965 resulted in large part from complete inventories conducted at two depots that stored AVCOM items. Similar complete inventories were not conducted in 1966.

at inventory control points and the depot stocks physically on hand. Between December 1965 and September 1966 these two depots took scheduled physical inventories of 26 lots by prescribed statistical sampling methods. An inventory lot generally comprises a number of items of the same Federal supply class. Of the 26 lots, 20 failed to meet the prescribed accuracy objective. For these 20 lots, 7 to 40 percent of the items sampled did not agree with the stock record balances. The overall average error rate for the 20 lots was about 15 percent.

The Naval Supply Systems Command monitors the system-wide accuracy of Navy stock records through quarterly reports of physical inventory performance which are submitted by Navy stock points. For fiscal years 1965 and 1966, these reports showed that an average overall stock record error rate of about 21 percent was experienced by all Navy stock points. However, the Navy's actual system-wide stock record error rate may be significantly higher than this reported 21-percent rate since this statistic included the number of Defense Supply Agency (DSA) items that were inventoried but excluded those which required adjustment.

For example, at one supply center included in our review, the quarterly reports of physical inventory performance for fiscal years 1965 and 1966 showed that about 28 percent of the Navy line items inventoried required stock record adjustments. The quarterly reports showed that stock record adjustments, totaling $33 million, were required for about 145,000 Navy items of the total 507,000 items physically inventoried in fiscal years 1965 and 1966.

We found that 268,000 DSA-owned items at this Navy stock point had been included in the total number of inventoried line items. Any adjustments required for these items were made by DSA and were not included in the 145,000 adjustments made by the Navy. Elimination of the DSA line items from the computation of the percentage of inventoried Navy items requiring stock record adjustments would then show that stock record adjustments were required for about 61 percent of the Navy line items inventoried at this supply center. On the basis of this result, we believe that the total reported error rate for the Navy does not present a true picture of existing conditions.

During our review at the DSA supply activities, we found that in fiscal year 1966 one of the Defense depots conducted scheduled statistical sample physical inventories of 42 lots representing 541,012 line items managed by five Defense Supply Centers. The results of these inventories showed that 22, or 52 percent, of the lots sampled failed to meet the statistically acceptable accuracy criteria.

Exceedingly large number of special inventories

DOD supply activities, in an effort to locate stocks required for accomplishment of their supply support mission, depend to a great extent on an exceedingly large number of special inventories to resolve suspected differences between stock record balances and items on hand. In our opinion, the widespread use of such inventories, in lieu of improved inventory control practices, is costly and ineffective. Furthermore, the excessive workload associated with taking these special inventories frequently restricts accomplishment of scheduled systematic physical inventories.

Scheduled physical inventories, unlike special inventories, provide for systematic selection and scheduling of items for physical inventory on the basis of priorities established according to the characteristics of the items, such as dollar value, criticality, or classified sensitivity. The objective of regularly scheduled physical inventories is to achieve and maintain an acceptable degree of accuracy for each item in store rather than just to give attention to those item balances that are suspect or in an emergency situation.

The data furnished to us by the Army Materiel Command indicate that its depots, which are responsible for 514,000 line items of depot stocks, conducted over 900,000 special inventories between January 1965 and June 1966. From this it appeared that, in addition to regularly scheduled physical inventories, it was necessary to count each item an average of 1.7 times during the 18-month period. However, some items were counted many times. For example, one depot conducted, within a 30-day period, five or more special inventories for each of 92 items.

For fiscal year 1966, the Air Force Logistics Command indicated that its five active Air Materiel Areas (AMA) had conducted special inventories of 277,254 line items. This number of special inventories are equal to about 30 percent of the total items in their inventories. At the two Navy supply centers included

in our review, we found that, in fiscal years 1965 and 1966, approximately 90 percent of the inventory effort was concentrated on special inventories.

On the basis of our observations, we believe that a large number of these special inventories were generated by warehouse denials. For example, at one of the Navy supply centers included in our review, we found that about 37 percent of the 436,000 special inventories conducted in fiscal years 1965 and 1966 were generated because of warehouse denials. At one of the Air Force AMAs, we found that, for calendar years 1965 and 1966, approximately 19 percent of its 109,000 special inventories were necessary because of warehouse denials.

In their reports and in discussions with us, the officials of the supply management commands of the Army and the Navy cited the workload associated with the taking of special inventories as a reason for not taking their prescribed scheduled physical inventories. However, information obtained from the Air Force indicated that the AMAs conducted, with few exceptions, all of their scheduled inventories.

Inaccurate stock locator records and weakness in receipt control

The magnitude of inaccurate stock locator records as well as weaknesses in receipt control had, in our opinion, an adverse effect on supply actions and generated the need for conducting many special inventories.

In order that the warehouse personnel may be directed to the correct location to obtain material needed to fill requisitions, locator records are maintained by the depots to show item identification and warehouse location. Errors exist when there is a locator record for a particular item but the item is not found at that location or when there is no locator record for an item found at a particular location.

During the period September 1965 through November 1966, Army ICPs averaged over 15,500 warehouse denials a month. Our review indicated that inaccuracies in, or the absence of, stock locator records for specific items at Army depots contributed to this large number of warehouse denials. Army personnel analyzed 3,475 of these denials that were processed during the 4-month period ended in September 1966 by the two depots included in our review. This analysis showed that 35 percent of the denials were the result of inaccurate or missing stock locator records.

We concluded that, at the Army depots included in our review, adequate controls did not exist to provide reasonable assurance that (1) assigned warehouse locations for storage of incoming material receipts were being recorded in the computerized locator records and (2) incoming stocks were being stored in designated warehouse locations.

At these depots (1) a stock locator division is responsible for assigning warehouse storage locations for incoming materiel receipts, (2) a data processing division is responsible for input of assigned stock locations into computerized locator records, and (3) a storage division is responsible for storage of stocks in designated warehouse locations. We found that no centralized control existed over the interrelated functions of these divisions to provide assurance that materials were being stored in designated storage locations and that the storage locations were being entered in the computerized locator records.

The Navy found that a systemwide error rate of about 13 percent existed in stock locator records as a result of location audits performed at stock points from July 1964 through June 1966. On an average annual basis, the location audits revealed that, of the 6 million audited stock locations, about 778,000 were discrepant. The discrepancies revealed by the location audits included (1) material in storage but not shown on stock locator and/or stock records and (2) actual storage location of material in disagreement with the recorded storage location.

The two Navy supply centers included in our review, in our opinion, did not have effective controls over unbroken lot receipts[1] to ensure that materials were being properly stored and processed to accountable records within the prescribed 5-day period.

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[1] Materials belonging to the same commodity class, which are logged in at a central receiving point but for which receipt and storage documentation is furnished to receipt control only after the material has been stored.

We found that, if proof of storage was not furnished by the storage division within a reasonable period of time, the receipt control procedures at these supply centers did not provide for follow-up action. Without the signed warehouse copy of the receipt document, the receipt control division at these supply centers could not, under existing procedures, process this type of material receipt to the stock record accounts.

At one Navy location, we tested the receipt processing time required for 54 receipts of unbroken lots which were logged in at the central receiving warehouse during the period February 1966 to July 1966. We found that the processing time required for 38, or 70 percent, of these receipts ranged from 6 to 72 days with an average processing time of 18 days. We found also that three material receipts, valued at about $34,000, had been in storage for varying periods, ranging from 76 to 200 days, but had not been recorded on the accountable records. After we brought this matter to the attention of officials, the three material receipts were processed to the accountable records.

During the 3-month ended September 1966, the Air Force AMAs conducted special inventories on about 72,000 items as a result of preinventory location surveys which showed that no recorded stock balances existed for about 51,000 items in storage and that stock locator records had not been established for another 21,000 items in storage. In this regard, at one of the AMAs included in our review, we found that location surveys and follow-up special inventories conducted during the period January 1, 1965, to June 30, 1966, resulted in the location of $37 million worth of unrecorded assets.

In an effort to improve controls over the proper recording and storage of assets, the Air Force Logistics Command developed a debit suspense receipt system during fiscal years 1965 and 1966. Under this system, the AMAs will post material receipts to stock records prior to storing the material in an assigned warehouse location; however, the system provides for an automated suspensing and matching of posted receipt documents with documents evidencing proof of storage. If an automated match-up is not obtained within 5 days, a computerized printout of unmatched receipt documents is obtained and follow-up action, including a special inventory if necessary, is taken. Thereafter, the unmatched debit suspense documents are automatically aged and printed out periodically until stored receipts are located.

The debit suspense system was introduced at the Ogden AMA in July 1966, and full implementation of the system at all the AMAs is scheduled for January 1968. The debit suspense system, if properly implemented, should improve stock record accuracy and supply effectiveness by reducing the incidence of recorded assets in storage which cannot be located.

Our review of inventory adjustments of $5,000 or more that were processed from November 1966 to January 1967 by two Defense supply centers showed that they could not locate stock shown on stock records for 101 items having a value of $1.9 million for periods averaging 2 months. As a result of the temporary losses of stock for 16 of the 101 items, approximately 100 high-priority requisitions for stock, valued at about $106,000, were backordered[1] for an average period of 17 days. The maximum time prescribed by DOD for filling high-priority requisitions is 3 days. We noted that 21 of these requisitions were for support to Southeast Asia and that they were in a backorder status for periods ranging from 3 to 51 days. The majority of these temporary losses of stock were generally attributable to inadequate receipt control and storage locator records at activities storing DSA-owned items.

Prescribed inventories not accomplished

During fiscal years 1965 and 1966, the DOD supply activities, except for those of the Department of the Air Force, generally did not accomplish the regular periodic inventories prescribed by their own directives. In addition, we observed inventory practices during our review which raised questions as to whether the data reported on physical inventories taken by the supply activities accu-

[1] Backorders represent requisitions that could not be filled within prescribed time periods by the supply depot and, therefore, were suspended awaiting availability of the requisitioned item.

rately portrayed the extent and result of their inventory activity. Our findings and observations are presented below by supply service.

Army

The overall data for the period February 1965 to June 1966 submitted for the 20 Army depots showed that 55 percent took no complete inventories, 45 percent took no sample inventories, and 25 percent performed no location record audits. The reasons given for these failures to conduct scheduled physical inventories were (1) utilization of total inventory resources for special inventories, (2) conversion to new or revised major logistical systems, and (3) the workload influx caused by the Southeast Asia buildup had a severe impact on the inventory programs.

Navy

Statistical data prepared by the Naval Supply Systems Command showed that 66 percent of the line items at Navy supply activities were physically inventoried in fiscal year 1965 and 88 percent in fiscal year 1966. These percentages were computed by using both special inventories and scheduled inventories and relating the total to the number of line items in the inventory. We believe that this is not a satisfactory means of measuring the effeciveness of a physical inventory program because the number of special inventories taken does not necessarily represent physical inventories of different line items. As indicated on page 9, the same line items are frequently counted many times through special inventories.

At the Navy locations included in our review, which were the two supply centers that stored the greatest number of items, we found that special inventories accounted for approximately 90 percent of the inventory effort. On the basis of their approved inventory programs, these activities were required to perform scheduled inventories annually on approximately 920,000 line items in fiscal years 1965 and 1966. However, during these fiscal years, scheduled inventories were taken on less than 6 percent of the items scheduled for physical inventory.

Air Force

Our review in the Air Force showed that the supply activities generally accomplished the prescribed physical inventories and location surveys. During fiscal years 1965 and 1966, they reported average overall stock record accuracy rates ranging from 86.7 percent to 99.7 percent.

However, our review at selected supply activities indicated that the reported high rates of stock record accuracy for certain categories of stock may have been overstated. Although the line items scheduled for regular physical inventory were selected on the basis of statistical sampling, action taken after the items were selected but before the scheduled inventories were taken raise some doubts as to the validity of the results as a basis for projecting to the universe.

For example, in August 1966 one of the supply activities conducted a statistical physical inventory of B–52 aircraft spares. The sample consisted of 75 items. No major stock variances were revealed, and an accuracy rate of 100 percent was computed for the lot. We found that 37 of the 75 sample items had been special inventoried about 1 week after the sample selection and about 2 weeks before the scheduled inventory. As a result, the stock records were adjusted for major stock variances. If these adjustments had not been processed immediately before the scheduled sample inventory, the results of the scheduled sample inventory would have reflected major stock variances for 10 of the 75 sample items.

Defense Supply Agency

Available DSA data showed that its supply activities had about 1.9 million active line items on hand. During fiscal years 1965 and 1966, approximately 40 and 9 percent, respectively, of the DSA active items were physically inventoried by complete or statistical sampling methods. In addition, the data indicated that the DSA supply activities accomplished less than 50 percent of the required location audits.

DSA officials indicated that one of the reasons for the substantial decrease from 1965 to 1966 in the number of line items physically inventoried was the

need for increased support to Southeast Asia. They indicated also that the failure to accomplish the majority of the location audits was due in large part to the implementation of a new depot system known as MOWASP (Mechanization of Warehousing and Shipment Procedures).

Under MOWASP all Defense supply centers and depots will utilize standardized computer systems and uniform programs. This system is being designed to improve warehousing operations and stock locator accuracy by mechanization of various warehouse functions, including computerized assignment of warehouse stock locations for material receipts, previously performed manually. Also, DSA Headquarters officials informed us that they recognized the need for better inventory performance reporting in order to better monitor and evaluate the inventory program. They also indicated that revisions were under development which they believed would give them the means to attain more effective control over the physical inventory program.

Receipt and issue documentation not adequately controlled and proper reconciliations not performed

Our review revealed that physical inventories were frequently made without proper control of documentation for receipts and issues occurring during the inventory cycle. The inventory cycle is the time period from establishment of the recorded balances for the line items to be included in the physical inventory through the actual count and summarization of those line items to the reconciliation of the recorded balances with the physical quantities. Also we found that, in a number of instances, personnel failed to perform proper reconciliations of the stock record balances with the physical stock position as of the physical inventory cutoff date.

All DOD supply activities follow the practice of taking open physical inventories; that is, receipt and issue of material continues during the inventory cycle. Therefore, it is necessary to identify and control the documents for transactions occurring during the inventory cycle. Also, it is necessary to perform a reconciliation of the physical counts with the stock records that will ensure the same effect from any interim transactions on both the recorded balances and the determination of the physical stock positions as of the cutoff date. Adjustment must be made to the records for any differences between the recorded balances and the physical stock positions that remain at the completion of the reconciliation. If the foregoing procedures are accomplished properly, the stock records should then show the physical stock position as of the inventory cutoff date.

During our review of Army supply activities, we tested the adjustments that one ICP made to 26 of its stock records for major variances between the recorded balances and the physical stock position as of the inventory cutoff date. We found that 19 percent of the records were adjusted incorrectly because personnel failed to adequately control the documentation for transactions occurring during the inventory cycle and failed to properly consider these transactions in performing reconciliations.

At two other Army ICPs, our tests showed a number of cases where major stock variances between the stock records and the physical inventory counts were researched inadequately and reconciled improperly. These activities allegedly reconciled the stock records with the physical inventory counts for 71 major variances, amounting to about $532,000, that were revealed by physical inventories taken and reported to the ICPs by one depot. We found that, in performing the reconciliations, personnel failed to properly take into consideration the effect of transactions that occurred during the inventory cycle. This resulted in erroneous reconciliations for 18 percent of the 71 major variances.

Personnel at two DSA depots did not follow the prescribed procedures for control of documentation in the performance of physical inventories taken in 1965 and 1966. We examined into the control that one DSA depot exercised over the documents for transactions that occurred during its physical inventory cycles. As a result of physical inventories conducted by the depot, adjustments totaling about $540,000 were made to the records for 550 items.

Our review indicated that the depot reported inaccurate quantities for about 14 percent of the 550 items which resulted in invalid adjustments totaling about

$130,000. We found that these invalid adjustments resulted from the depot's failure to adequately control the documentation for transactions occurring during the inventory cycle and to properly consider these transactions in arriving at a physical stock position as of the inventory cutoff date.

We believe that adequate control of the documentation for transactions occurring during the inventory cycle could have eliminated a significant part of the erroneous adjustments to the stock records. In our opinion, adequate research of the major adjustments could have shown these errors, made their correction possible, and reduced their recurrence.

Physical inventory adjustments not researched

We found that suitable research of adjustments to the stock records for major differences disclosed by physical inventories was frequently not accomplished by the DOD supply activities. Although each supply command's criteria vary slightly, the commands have prescribed procedures for research of major adjustments that are designed to determine causes for the differences and to make provisions for eliminating them or reducing their recurrence.

We found that two Army ICPs processed inventory adjustments for about $197 million in 1966 and failed to research a substantial number of the adjustments representing major stock variances. At another Army ICP, we found that eight of 17 alleged reconciliations were considered proper and not in need of research on the basis of a comparison of a second physical inventory count with the stock record as adjusted by the first physical inventory count.

For example, on August 18, 1966, a depot inventory group physically counted 57 units of a particular item (FSN 1420–629–2626). The ICP's stock record for this item showed a zero balance as of the inventory cutoff date. On August 27, 1966, without performing any research, the ICP adjusted its stock record for the item to show an on-hand quantity of 57 units. The stock record then agreed with the count reported by the depot.

The Army requires a second physical count and research for all major variances. Therefore, on September 1, 1966, the depot made another physical count of the item and again reported an on-hand quantity of 57 units. The ICP personnel compared the reported results of the second physical count, 57 units, with the stock record balance which, as a result of adjustments made to record the first physical count, showed 57 units. They determined that, since the second physical count and the stock record balance agreed no research was necessary.

We found that, at one of the Navy supply activities, a procedure had been established that provided for postaudits and follow-up corrective action on all inventory adjustments valued at $2,000 or more. However, we found that the procedure had been of little value because no follow-up corrective action had been taken.

During fiscal year 1966 postaudits were performed on 1,923 inventory adjustments which met the $2,000 or more criteria. We found that no analysis had been made of the results of the fiscal year 1966 postaudits and that the results of these audits had not been reported to any organizational element above the group responsible for the postaudits. We found also that no corrective measures had been taken to eliminate or minimize the causes of recurring inventory errors identified by the postaudits. After we brought this situation to the attention of officials at the supply center, they informed us that, in the future, postaudit results would be turned over to a quality assurance group for review and follow-up action.

We found that, at one DSA supply center, approximately 33,700 stock records were adjusted in fiscal years 1965 and 1966 to reflect physical inventory gains and losses totaling about $93 million, or a net inventory gain of approximately $43 million. However, subsequent investigations of these adjustments showed that many of them were incorrect. After the correcting entries were made, the net inventory gain of $43 million was reduced to $1.8 million.

On the basis of our review, we believe that the investigations of physical inventory adjustments, when made, generally were not conducted in sufficient depth to establish the basic causes for the adjustments. In those instances where a single transaction or a group of transactions appeared to account for all or a major portion of the physical inventory adjustment, it was usually assumed

that incorrect transaction entries were the reason for the discrepancy. The investigative practices observed at one center are illustrated by the following example.

Water chlorination kits (FSN 6850–270–6225)

In June 1966 the center personnel concluded their investigation of a physical loss adjustment of 8,341 units of a water chlorination kit having a total value of about $28,360. This loss adjustment had been posted to the stock accounts in January 1966. The investigation developed the following information.

Month adjustment posted to stock records	Reason for adjustment	Quantity increase or decrease (—)
1965:		
May	Physical inventory	11,829
September	Not given	640
1966:		
January	Physical inventory	—8,341
March	Physical inventory (special)	5,201
April	Not stated	1,300
June	Physical inventory (special)	—9,404
Net increase		1,225

On the basis of the above data, the investigative personnel concluded that no further investigation or corrective action was necessary inasmuch as the series of adjustments appeared to be offsetting.

In other cases we reviewed, we could find no evidence that the investigations attempted to establish the basic causes for the physical inventory adjustments. In our opinion the investigative practices are not in accord with DSA procedures and are not conducive to improvement of stock record accuracy.

Internal audit reports show stock record inaccuracies and related difficulties as a continuing problem

We reviewed 35 reports issued between January 1964 and June 1966 by the internal audit groups of the DOD organizations. These reports indicated that differences between stock records and items on hand were a continuing problem. Also they frequently called attention to failures to—

1. Conduct prescribed physical inventories;
2. Control documentation for transactions occurring during the inventory cycle;
3. Properly reconcile stock records with the physical stock position as of the inventory cutoff date; and
4. Properly adjust stock records for differences.

Furthermore, they noted problems caused by—

1. Erroneous locator records;
2. Poor counting;
3. Selection of nonrepresentative samples for statistical inventorying; and
4. Lack of ownership identification for items owned by two or more managers but stored at one location.

In the majority of instances the internal audit recommendations for improving the accuracy of the records or solving the inventory control problems were directed to stricter adherence to the prescribed procedures.

In our opinion, the audit coverage, except for the Air Force, was adequate in scope and frequency of review. During the period reviewed, the Air Force auditors had issued only one report on one phase of inventory control at the depot level. We believe that the area is sufficiently important to warrant greater attention.

In fiscal years 1965 and 1966, the Navy internal auditors issued two Navy-wide reports that showed an overall 28 percent difference between the physical inventories and the stock records at 18 Navy and three Marine Corps stock points. However, these reports failed to deal with the causes for such conditions. We believe that in-depth reviews of previously identified problem areas should be considered by the internal audit groups.

Agency comments

We brought our findings to the attention of the Secretary of Defense on May 3, 1967, and proposed that the military departments and the Defense Supply Agency be directed to take the necessary steps to concentrate management attention on the factors that have contributed to the present conditions and to achieve more positive enforcement of the existing policies and procedures relative to the maintenance of an acceptable degree of stock record accuracy for depot inventories.

We proposed further that the Secretary of Defense establish a group, composed of representatives from the military departments and the Defense Supply Agency, to study the problems of inventory control in depth with an objective of resolving the broad basic causes for these problems and to make recommendations that will correct the conditions uniformly throughout the Department of Defense.

At the Secretary's request, the Deputy for Supply and Services, Office of the Assistant Secretary of Defense (Installations and Logistics), commented on our findings and proposals by letter dated July 21, 1967 (see app. III), and stated that the Department of Defense concurred, in general with our findings. He advised us that current management actions, including concentration of management attention on the factors contributing to the present conditions and increased emphasis on positive enforcement of existing policies and procedures, now under way within each of the military services and DSA are expected to effectively reduce the problems associated with maintenance of stock record accuracy for depot inventories.

The Deputy for Supply and Services commented that each of the military services and DSA had initiated specific programs to eliminate the types of inventory control problems discussed in this report and were in the process of installing new procedures which were aimed at more accurate inventory control. We were advised that the installation of the new procedures had advanced to the point where fruitful results could be anticipated within a relatively short period of time. We were advised also that the need for establishment of a special inventory study group would be reconsidered and, if necessary, organized after an evaluation of the results was obtained from the new procedures.

Conclusions

We believe that the increased emphasis which DOD has stated that the military services and DSA are placing on more positive enforcement of the existing policies and procedures for control of depot inventories should, if effectively pursued on a continuing basis, result in greater stock record accuracy and increased supply effectiveness. As a part of our continuing interest in the supply management activities of the Department of Defense, we intend to give further attention to the need for improvement in the control of depot inventories and to test the effectiveness of the new inventory programs and procedures that are currently being implemented by the military services and DSA.

On the basis of other studies we have made of inventory controls and supply system responsiveness, we believe that, in addition to the specifics cited in this report, there are certain broad basic factors which have a significant bearing on the effectiveness of inventory controls in the Department of Defense. For example, we believe that the organizational structure of the supply systems in some cases may contribute substantially to the difficulties encountered in control of inventories.

The responsibility for physical receipt, storage, and issue of stocks of the same item is frequently decentralized to several storage activities. The management and accounting responsibility for these same stocks is centralized at another supply activity which has no direct authority or control over the practices of the storage activities. Thus, it is difficult to establish responsibility for errors or loss of control because no single organization has the direct authority, responsibility, or perhaps motivation to reconcile differences and ensure closer control.

For the immediate future, we intend to concentrate our efforts on the organizational structure, alignment of responsibilities and authority, and numbers and types of personnel. We also intend to examine into the policies, procedures,

and practices used by the military services and DSA relative to the receipt and storage of material, and into the processing of related transaction documents affecting the inventory records. In connection with this work, we intend to consider the organizational structure and methods used in commercial enterprises to determine if there are any techniques that may have application to the solution of inventory control problems in the Department of Defense.

SCOPE OF REVIEW

In response to the May 1966 report on the Economic Impact of Federal Procurement issued by the Subcommittee on Economy in Government of the Joint Economic Committee in which it indicated continued interest in the adequacy of inventory controls in the DOD, we initiated a review of this matter at selected locations in June 1966.

Our work included review and analysis, as deemed necessary, of overall reported or accumulated figures—quantitative and monetary, when available—for fiscal years 1965 and 1966 that were furnished to us by the military departments and by the DSA. These figures included total depot inventories, receipts and issues, adjustments resulting from physical inventories, and material availability. We also reviewed reports of scheduled and accomplished physical inventories, when available, and reports of audits conducted by the military departments' and DSA's internal audit organizations.

At the selected locations, our work included examination of the procedures and practices for control of receipts and issues of material, as well as observations of the taking of some physical inventories. We also reviewed the control exercised over documentation for transactions that occurred during the inventory cycle and tested the associated reconciliations of the stock records with the physical stock position as of the inventory cutoff date. We performed limited tests of the research of the adjustments on the part of the military departments that resulted from physical inventories. This prescribed research is intended to determine causes and to result in improvements to procedures or practices, whichever may be necessary.

Our review was conducted at the following locations in the military departments and DSA.

Department of the Army

Army Materiel Command, Headquarters, Washington, D.C.
Army Aviation Materiel Command, St. Louis, Missouri
Army Missile Command, Huntsville, Alabama
Army-Tank-Automotive Center, Warren, Michigan
Army Weapons Command, Rock Island, Illinois
Red River Army Depot, Texarkana, Texas
Sharpe Army Depot, Lathrop, California

Department of the Navy

Naval Supply Systems Command, Headquarters, Washington, D.C.
Aviation Supply Office, Philadelphia, Pennsylvania
Norfolk Naval Supply Center, Norfolk, Virginia
Oakland Naval Supply Center, Oakland, California

Department of the Air Force

Air Force Logistics Command, Headquarters, Dayton, Ohio
Ogden Air Materiel Area, Ogden, Utah
Oklahoma Air Materiel Area, Oklahoma City, Oklahoma

Defense Supply Agency

Defense Supply Agency, Headquarters, Alexandria, Virginia
Defense Electronics Supply Center, Dayton, Ohio
Defense General Supply Center, Richmond, Virginia
Defense Industrial Supply Center, Philadelphia, Pennsylvania
Ogden Defense Depot, Ogden, Utah
Richmond Defense Depot, Richmond, Virginia

APPENDIXES

Appendix I

Principal Officials of the Department of Defense and the Departments of Army, Navy, and Air Force Responsible for Administration of the Activities Discussed in This Report

	Tenure of office	
	From—	To—
Department of Defense:		
Secretary of Defense: Robert S. McNamara	January 1961	Present.
Deputy Secretary of Defense:		
Cyrus R. Vance	January 1964	June 1967.
Paul H. Nitze	July 1967	Present.
Assistant Secretary of Defense (Installations and Logistics):		
Thomas D. Morris	January 1961	December 1964.
Paul R. Ignatius	December 1964	August 1967.
Thomas D. Morris	September 1967	Present.
Director, Defense Supply Agency:		
Vice Adm. Joseph M. Lyle	July 1964	June 1967.
Lt. Gen. Earl C. Hedlund	July 1967	Present.
Department of the Navy:		
Secretary of the Navy:		
Paul H. Nitze	November 1963	June 1967.
Robert H. B. Baldwin (acting)	July 1967	August 1967.
Charles F. Baird (acting)	August 1967	September 1967.
Paul R. Ignatius	September 1967	Present.
Under Secretary of the Navy:		
Paul B. Fay, Jr	February 1961	January 1965.
Kenneth E. BeLieu	February 1965	June 1965.
Robert H. B. Baldwin	July 1965	June 1967.
Charles F. Baird (acting)	July 1967	Present.
Assistant Secretary of the Navy (Installations and Logistics):		
Kenneth E. BeLieu	February 1961	February 1965.
Graeme C. Bannerman	February 1965	Present.
Chief of Naval Operations: Adm. David L. McDonald	August 1963	Do.
Commander, Naval Supply Systems Command: [1]		
Rear Adm. John W. Crumpacker	May 1961	April 1965.
Rear Adm. Herschel J. Goldberg	May 1965	July 1967.
Rear Adm. Bernhard H. Bieri, Jr	August 1967	Present.
Department of the Army:		
Secretary of the Army:		
Stephen Ailes	January 1964	July 1965.
Stanley R. Resor	July 1965	Present.
Under Secretary of the Army:		
Paul R. Ignatius	March 1964	December 1964.
Vacant	December 1964	March 1965.
Stanley R. Resor	March 1965	July 1965.
David E. McGiffert	July 1965	Present.
Assistant Secretary of the Army (Installations and Logistics):		
Daniel M. Luevano	July 1964	October 1965.
Dr. Robert A. Brooks	October 1965	Present.
Deputy Chief of Staff for Logistics:		
Lt. Gen. R. W. Colglazier, Jr	July 1959	July 1964.
Lt. Gen. Lawrence J. Lincoln	August 1964	Present.
Army Materiel Command: Gen. Frank S. Besson, Jr	July 1962	Do.
Department of the Air Force:		
Secretary of the Air Force:		
Eugene M. Zuckert	January 1961	September 1965.
Dr. Harold Brown	October 1965	Present.
Under Secretary of the Air Force:		
Dr. Brockway McMillan	June 1963	September 1965.
Norman S. Paul	October 1965	October 1965.
Townsend Hoopes	October 1967	Present.
Assistant Secretary of the Air Force (Installations and Logistics) (formerly Materiel): Robert H. Charles	November 1963	Do.
Commander, Air Force Logistics Command:		
Gen. Mark E. Bradley, Jr	July 1962	August 1965.
Gen. Kenneth B. Hobson	August 1965	July 1967.
Gen. Thomas P. Gerrity	August 1967	Present.

[1] Formerly the Bureau of Supplies and Accounts, reorganized in May 1966.

APPENDIX II

DEPARTMENT OF DEFENSE CONUS DEPOT INVENTORY MANAGEMENT DATA FOR FISCAL YEARS 1965 AND 1966

	1965					1966				
	Air Force	Navy	Army	Defense Supply Agency	DOD total	Air Force	Navy	Army	Defense Supply Agency	DOD total
	Dollar value in millions									
Average annual inventory	$3,810	$3,105	$1,455	$2,104	$10,474	$3,743	$3 014	$1,594	$1,985	$10,426
Receipts	1,308	536	510	1,870	4,224	1,758	607	933	3,023	6,321
Issues	2,645	873	515	1,968	6,001	1,887	1,186	1,294	3,010	7,377
Physical inventory adjustments:										
Gain	603	223	438	206	1,470	406	204	229	162	1,001
Loss	−752	−202	−432	−184	−1,570	−314	−195	−146	−180	−835
Net	−149	21	6	22	−100	92	9	83	−18	166
Gross	1,355	425	870	390	3,040	720	399	375	342	1,836
Percent of gross physical adjustment to average annual inventory	35.56	13.69	59.79	18.54	29.02	19.24	12.85	23.53	17.23	17.61
	Line items, actual [1]									
Average annual inventory	$956,483	$827,985	$497,435	$2,350,700	$4,632,603	$930,783	$824,626	$531,425	$2,405,050	$4,691,884
Receipts	750,106	2,648,208	([2])	2,157,700	5,556,014	1,051,458	2,681,461	5,111,602	2,651,300	11,495,821
Issues	3,472,667	6,082,546	([2])	15,081,100	24,636,313	4,912,618	6,317,010	4,661,453	18,774,300	34,665,381

[1] A comparison cannot be drawn between the number of line item receipts and issues because generally receipts are made in bulk form which is recorded as one line item receipt, while shipments are generally made by breaking down this bulk form into smaller line item issues to be shipped to the individual using activities.

[2] This data not provided by AMC for fiscal year 1965.

Note: Inventory management data was supplied to us by the Department of the Army (Army Materiel Command), Navy (Naval Supply Systems Command), Air Force (Air Force Logistics Command), and the Defense Supply Agency. The data supplied by the Army Materiel Command (AMC) for fiscal year 1965 covered only the period Feb. 1, 1965, to June 30, 1965.

APPENDIX III

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., July 21, 1967.

Mr. WILLIAM A. NEWMAN, Jr.,
Director, Defense Division,
General Accounting Office,
Washington, D.C.

DEAR MR. NEWMAN: Reference is made to your letter of May 3, 1967 which forwarded for review and comment a draft report on Control of Depot Inventories in the Department of Defense (DoD) (OSD Case #2605).

The draft report is based on a limited review of the effectiveness of inventory controls in the DoD, particularly with those pertaining to the accuracy of depot inventory records, and to the degree of compliance with prescribed policy and procedural directives addressed to the maintenance of stock record accuracy.

The General Accounting Office (GAO) concluded from its review that substantive differences existed between stock record balances and the actual quantities of items in inventory. Those imbalances were generally attributable to the failure to: (1) establish and maintain accurate locator cards, (2) conduct regularly scheduled physical inventories, (3) adequately control documentation representing movement of stock during the physical inventory cycle, (4) adequately perform or validate reconciliations of the stock record with the physical inventory stock positions prior to posting adjustments, and (5) perform post-adjustment research to isolate causes for the significant discrepancies and to take appropriate corrective action.

Based on the overall conclusion that needed improvements must come through the concentration of management attention on the factors that have contributed to the present conditions, the report recommends that the Military Departments and the Defense Supply Agency (DSA) be directed to take necessary steps to achieve more positive enforcement of existing policies and procedures, and that a group be established to study the problems of inventory control in depth.

Generally, the types of deficiencies cited in the report are valid. However, actions now under way within each of the Military Services and the Defense Supply Agency should result in significant improvements.

The effectiveness of inventory controls at all levels is a matter of continuing concern to the DoD. The introduction of computers into the management system and the consequent transfer of accountable records from local control to centralized ADP equipment have introduced some new dimensions into the management process. While many cost and effectiveness advantages have been achieved as a result of these management innovations, the remote control of stocks on hand as well as specific warehouse locations, created transitional problems that always result from conceptual changes in basic procedures. Coupled with this was the advent of hostilities in Vietnam as well as the need for more highly competent personnel assigned to the inventory control task. Both of these latter factors further complicated the many transitional problems that were already apparent.

These problems were recognized, but the pressures to maintain a continuing flow of high priority essential military supplies to Vietnam often precluded the orderly process of converting from one system to another. However, each of the Military Services and DSA initiated specific programs to eliminate these deficiencies. For example, the Army initiated a six-phase program in September 1966. Three of these phases were completed by the end of December 1966 but not in sufficient time to be reflected in the draft report prepared by your staff. The major phase, which involves the establishment of new inventory procedures, will be phased in between May and October 1967. Likewise, the Navy, Air Force and DSA are in the process of installing new procedures which are aimed at more accurate inventory control.

The draft report recommends that the Secretary of Defense take necessary steps to direct the Military Departments and DSA to concentrate management attention on the factors that have contributed to the present conditions and to achieve more positive enforcement of existing policies and procedures. The Military Departments and DSA are now doing this and it is anticipated that current management actions will effectively reduce the problems associated with maintaining accurate physical inventories. This office will continue to review the progress being made under the programs now under way to assure the

development of inventory control procedures that will appropriately reflect an acceptable degree of accuracy.

The draft report also recommends the establishment of a special group to study this problem in depth. It is believed advisable at this time to continue with the installation of the new procedures now under way by the Military Services and DSA since they have advanced to the point where fruitful results can be anticipated within a relatively short period of time. After evaluation of the results obtained from these new procedures, the need for establishment of the special group will be reconsidered and, if necessary, such a group will be organized.

In the meantime, a positive exchange of views between the GAO and DoD with respect to this program as well as the effectiveness of the procedures now being installed by the Military Services and DSA would be welcomed and such an exchange is encouraged. A follow-on survey by GAO after the procedures have been in effect for a reasonable period of time might also serve a useful purpose.

Sincerely,

PAUL H. RILEY,
Deputy Assistant Secretary of Defense (Supply and Service).

APPENDIX 6

List of Independent Computer Peripheral Equipment Manufacturers and Glossary of Terms

1. Data Disc, Inc., 1275 California Ave., Palo Alto, Calif. 94304.
   Small fixed and interchangeable Disc memories with associated electronic systems.
2. Data Products Corp., 8535 Warner Drive, Culver City, Calif. 90230.
   Medium and large random access disc files memories with associated electronic systems.
3. Digital Development Corp., 5575 Kearney Villa Road, San Diego, Calif. 92123.
   Disc/Drum (Drisk) memories with associated electronic systems.
4. Magna-Head Division, General Instrument Corp., 13040 S. Cerise Ave., Hawthorne, Calif. 90250.
   Small, medium and large drum and core memories with associated electronic systems.
5. Librascope Group, Components Division, General Precision Inc., Subsidiary of General Precision Corp., 1100 Frances Court, Glendale, Calif. 91201.
   Small, medium capacity Disc memory systems. Large capacity Disc file memory systems.
6. Vermont Research Corp., Precision Park, North Springfield, Vermont 05150.
   Small, medium and large Drum memory systems.
7. Western Magnetics, Division of GJM, Inc., 1733 Flower Street, Glendale, Calif. 91201.
   Small, medium and large drum memory systems. Event recording drums (analog).
8. Potter Instrument Co., Inc., 151 Sunnyside Boulevard, Plainview, New York 11803.
   Medium capacity random access memory systems.
9. Computer Memories Corp., 13432 Wyandotte Street, North Hollywood, Calif.
   Small and medium capacity disc memory systems.
10. Applied Magnetics Corp., Computer Memories Division, 75 Robin Hill Road, Goleta, Calif. 93017.
    Small and medium capacity disc memory systems.
11. Memorex Corp., 1180 Shulman Avenue, Santa Clara, Calif. 95052.
    IBM compatible disc-drivers and disc pack memory systems.
12. Caelus Memories, Inc., San Jose, Calif.
    Disc pack memories.
13. Mac Panel Co., High Point, N.C.
    Disc Pack memories.
14. Electronic Memories, 12621 Chadron Avenue, Hawthorne, Calif. 90250.
    Core Memory Systems.
15. Hughes Aircraft Company.
    Small military drum systems.
16. Anelex Corp. (out of memory business), 150 Causeway Street Boston, Mass. 02114.
    Used to produce small disc file memory systems.
17. Fabri-Tek, Inc., 5901 S. County Road, Minneapolis, Minn. 55118.
    Core Memory Systems.
18. S. Himmelstein & Company, 2500 Estes Avenue, Elk Grove Village, Ill. 60007.
    Magnetic tape systems: Small drum memory systems.
19. LFE, Inc., Electronics Division, Waltham, Mass. 02154.
    Delay-Line memory systems.
20. Dacol Division, Hersey-Sparling Meter Co., 210 W. 131st. Los Angeles, Calif. 90061.
    Magnetic tape memory systems.

21. Tally Corp., 1310 Mercer Street, Seattle, Washington 98109.
Magnetic tape memory systems.
22. Anderson Laboratories, Inc., 1280 Blue Hills Avenue, Bloomfield, Conn. 06002.
Delay line memory systems.
23. Computer Devices Corp., 63 Austin Boulevard, Commack, New York 11725.
Delay line memory systems.
24. Optimized Devices, Inc., 220 Marble Avenue, Pleasantville, New York.
Small Disc Memory systems.
25. Decision Control, Inc., 1590 Monrovia Avenue, Newport Beach, Calif.
Core memory systems.
26. Microsonics, Inc., Subsidiary of Sangamo Electric Co., 60 Winter Street, Weymouth, Mass. 02188.
Delay line memory systems.
27. Fairchild Semiconductor, 313 Fairchild Drive, Mountain View, Calif.
Core memory systems.
28. Itek Corp., 10 Maguire Road, Lexington, Mass.
Photo-disc memory systems.
29. Simons Precision Products, Computer Product Division, Fairhaven, Vt.
Core memory systems.
30. Astrodata, Inc., 240 E. Palois Road, Anaheim, Calif.
Small and medium capacity drum memory systems.
31. Advanced Memory Systems, Inc., 1718 Barrington Avenue, Los Angeles, Calif. 90025.
Small drum memory systems.
32. California Computer Products, Inc., 305 Mueller Avenue, Anaheim, Calif.
Digital Plotter systems, Magnetic Tape memory systems.
33. Cognitronics Corp., 549 Pleasantville, Briarcliff Manor, New York.
Analog memory systems, Small digital drum memory systems.
34. Datamark, Inc., 2000 Shames Drive, Westbury, L.I., New York.
High speed printers.
35. Litton Systems, Inc., Division of Litton Industries, 5500 Canago Avenue, Woodland Hills, Calif.
Core memory systems.
36. Lockheed Electronics Co., Division of Lockheed Aircraft Corp., 6201 E. Randolph Street, Los Angeles, Calif. 90022.
Core memory systems.
37. Indiance General, Electronics Division/Memory Products, Keasbey, New Jersey.
Core memory systems.
38. Hughes Aerospace Group, Guidance & Controls Division, Hughes Aircraft Company, Culver City, Calif.
Small and medium airborne drum memory systems.
39. Ampex Corp., 401 Broadway, Redwood City, Calif.
Core memory systems.
40. Electron Ohio, Inc., 1278 W. 9th Street, Cleveland, Ohio 44113.
Small drum memory system.
41. Precision Instrument Co., 3170 Porter Drive, Palo Alto, Calif.
Magnetic tape memory systems.
42. Datametrics Corp., 8217 Lankershim Blvd., North Hollywood, Calif.
Small disc memory systems.
43. Soroban Engineering Inc., Melbourne, Florida 32902.
High speed printers, paper tape punches.
44. Thin Film Inc., 961 E. Slauson Avenue, Los Angeles, Calif. 90011.
Disc packs.
45. Dura Magnetics, Inc., 5355 Whiteford Road, Sylvania, Ohio.
Small disc systems.
46. Benson–Lehner Corp., 14761 Califa Street, Van Nuys, Calif.
Small disc systems.
47. Bryant Computer Products, 850 Ladd Road, Walled Lake, Michigan 48088.
Small, medium and large drum memory systems, Large Disc File memory systems.
48. AMP, Inc., Harrisburg, Pennsylvania.
Card Readers.

49. Peripherals, Inc., Phoenix, Arizona.
Disc Testers.
50. Franklin Electronics, Inc., E. Fourth Street, Bridgeport, Pa. 19405.
High speed digital printers.

Glossary of Terms

Reference: "Words of The Computer Age" by Newsweek.
"Glossary for Automatic Data Processing" by Datamation.

The following are an attempt to put into layman terms various phrases which are used in the computer industry so that the average person could understand them:

Binary

This is a numbering system in which only two stable states are possible; e.g., something is either up or down; on or off; in or out there is never any in between. This system is extremely useful and easy to use in a electronic system where either we have current flowing or not flowing in an element within the system.

Bit

This is actually an abbreviation of the words binary digit. Bi from binary and the "t" from digit. The existence or the absence of a pulse or a bit in a group of pulses becomes a code that can be recognized by the computer and turned into an intelligent language.

Byte

A byte is a series of eight (8) bits. This particular quantity is very useful in a computer language in order that certain characters or symbols may be represented by the computer so that the computer can recognize them.

Character

A character usually consists of six (6) bits; e.g., a character from a typewriter, such as the letter "a", the letter "b" or one of the symbols for punctuation or for that matter one of the numerical symbols can be represented in binary language by a series of pulses. In reality, it is only necessary to have six (6) bits of information in order to have 64 different characters or symbols represented by any combination of the bits (an eight (8) bit byte can represent up to 256 different types of characters or symbols).

Check/Parity Bit

In many instances it is necessary to check that a character or byte has been transmitted properly and this is done by having *check bits* or *parity bits* which will determine if the proper number of bits have been transferred; that is, if the bits that makeup a character or byte are even then another bit could be added to make them odd thereby referring to odd parity or odd number of check bits which allows the computer to very quickly determine if an error has been made in the transmission of the information between one area in the processor to another area in the processor.

Main Frame

This is the area of the computer which does the majority of the work; that is, the actual addition, subtraction or any other functions which are necessary are done in what is termed the main frame. It is sometimes referred to as the CPU or central processing unit. It is that portion of a computer exclusive of the input/output and peripheral devices.

Main Frame Memory

This portion of the memory is usually a core memory which consists of a series of small round magnetic cores which are inter-wired together and then put into various size planes. These cores store the data that is being processed much like the wheels in an adding machine which store that particular number that is inserted until everything is added together and these wheels rotate. In this particular case data is stored in an electronic sense, magnetically, and then the numbers are added or divided or subtracted or whatever the particular requirement is. The main feature of this core data storage unit is that it is extremely fast since it determines the speed of the computer.

Auxiliary Memory

This is an external storage device which is associated with the computer and which is not usually a core memory as previously described. It is rather a permanent or semi-permanent type storage where the information is stored for long periods of time, such as payroll information, accounting information, inventory control information. It is possible to go back into this main store and retrieve the information; do some work on it, possibly a payroll for example, and then restore the same information back into this mass storage device. The mass store can consists of rotating magnetic devices, magnetic strips or even photographic film type devices. These are strictly permanent or semi-permanent stores.

Peripheral Equipment

This is any piece of equipment external to the main frame; e.g., it could be a typewriter in which information can be typed into the computer and if the typewriter is so constructed information can be typed automatically from the computer. This is commonly known as an input/output device. Another such type device would be a card reader; that is, a unit that can read punched cards, such as those that are key punched. These can be read directly into the computer and by the same token it is possible for the computer to punch cards out if such a device is attached. It is also an input/output device. Another type device which is considered only an output device is referred to as a line printer. This can print; e.g., pay checks, inventory control lists, etc. at a very high rate of speed although it is much slower than the computer can operate at. In other words, these will print-out on an average of a thousand lines per minute as opposed to a typewriter which is capable of possibly 150 characters per minute. A mass storage device is considered a computer peripheral, (this has been discussed above) however, it requires an interface to the computer in order for it to be affective. A data terminal is considered an I/O (input/output) device. This will allow somebody remotely located to interrogate the computer and to receive information back. This is used in what is called the time-sharing systems; that is, where a lot of people are sharing the same computer and it is not wholly one person.

Electronic Interface

This is an interface determined by an electronic voltage levels and signals which determine exactly where the connections are being made for the input/output devices or the various inter-connections between the peripheral equipment and the main frame.

Software

This word is contrasted to hardware. The software is in effect all of the paperwork that is necessary in order that the computer can operate. In other words, a computer programer must outline in extreme detail all of the steps or functions which the computer must go through in order to perform a certain operation. This operation is referred to as a program. The program itself is referred to as software. Now this can be in a form of punched cards which are inputed into the computer; a punched paper tape which can be inputed into the computer or even a magnetic tape which has been programed which in turn will operate the computer. The term software usually refers to the complete programing and routines which are necessary in order to use the computer's capabilities to the fullest extent. Various other terms which are used in conjunction with software are compilers, assemblers, narraters, etc. There are assemblers which will change from one computer language to another computer language since many times computers do not operate with the same coding structure. The words FORTRAN, ALGOL and COBOL are methods of programing the computer and many times you want to convert from FORTRAN to ALGOL because the computer will recognize ALGOL but not FORTRAN, therefore, an assembler or an emulator, or a compiler is necessary.

Hardware

This word refers to the physical equipment. It refers to the main frame, input/output devices, in other words, to the computer itself, to the physical units as opposed to the word software which is really the operating controls for the computer.

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Program

This is a term used to describe the step-by-step procedures which the computer must take in order to solve a particular problem. The computer in itself can only do what it is directed to do. It can only answer a question "yes" or "no" and by a process of elimination through program control it can come up to the most logical or most correct answer. In order to make each of these steps it is necessary that they be programed into the computer. The reason why the computer is so effective, of course, is because it can determine these answers at extremely high speeds and thereby spill out this information very rapidly much much faster than what a person could do.

Computer System

A computer system would be considered as a complete computer environment which would include the central processor or main frame, all of the peripherals, all of the programs necessary to solve all of the problems that are brought to this particular computer. It includes the hardware, software, the people, the facility. It is all inclusive of everything associated with a particular computer.

System

This term would not necessarily have the connotation that the term computer system has. It would possibly be one small portion of the overall computer system; e.g., the assembly of procedures or processes or methods which would be used to run the computer is sometimes called an operating system. A system that controls the overall operation of the computers and determines priorities of certain input/output devices is referred to as an executive system. This would determine whether or not it should print-out the checks for example or whether it should read-in additional data prior to printing out the checks. These priorities are established as part of the executive system, therefore, the term system can be very very widely used and without an adjective describing the particular system it does not become a full and meaningful word in the computer language.

APPENDIX 7

One Hundred Companies and Their Subsidiary Corporations Listed According to Net Value of Military Prime Contract Awards

Fiscal year 1967 (July 1966 to June 1967)

The 100 companies which, together with their subsidiaries, received the largest dollar volume of military prime contracts of $10,000 or more in FY 1967 accounted for 65.5% of the United States total. This rate was 1.7 percentage points above the 63.8% received by the top 100 companies in FY 1966. The increase in the 100 company percentage was due to a sharp upswing in aircraft procurement which rose from $7.5 billion in FY 1966 to $9.7 billion in FY 1967. Aircraft awards generally are concentrated in a relatively small number of companies which have the resources and knowhow to undertake such complex projects.

Military prime contract awards of $10,000 or more to all United States companies for work in the U.S. and overseas totalled $39,219.4 million, or $5,686.8 million more than in FY 1966. Because of this sizable increase, it required $46 million in awards for a company to be listed in FY 1967 compared with $40 million in FY 1966. The largest company in FY 1967 received $2,123.6 million, whereas the largest in FY 1966 received $1,531.0 million.

The table below shows that the first 5 companies received 3.2% more in FY 1967 than in FY 1966, and that the first 25 companies received 1.5% more.

PERCENT OF U.S. TOTAL

Companies	Fiscal year						
	1961	1962	1963	1964	1965	1966	1967
1st	6.5	5.6	5.9	5.8	7.1	4.6	5.4
2d	5.2	4.7	5.2	5.4	4.9	3.5	4.7
3d	5.2	4.4	4.1	4.6	3.5	3.4	4.6
4th	4.1	4.0	4.0	4.1	3.4	3.4	3.3
5th	3.8	3.8	4.0	3.9	3.1	2.7	2.8
1 to 5	24.8	22.5	23.2	23.8	22.0	17.6	20.8
6 to 10	11.8	11.1	10.9	12.0	10.2	9.0	8.8
11 to 25	18.2	17.2	17.8	17.1	16.0	16.4	14.9
1 to 25	54.8	50.8	51.9	52.9	48.2	43.0	44.5
26 to 50	11.0	12.6	13.7	12.9	13.0	12.1	11.6
51 to 75	5.5	6.0	5.5	5.1	5.2	5.4	6.1
76 to 100	2.9	2.9	2.8	2.5	2.5	3.3	3.3
1 to 100	74.2	72.3	73.9	73.4	68.9	63.8	65.5

The FY 1967 list of the top 100 companies contains 18 companies which did not appear on the list for FY 1966. Of these, two appear between positions 26 and 50, four between 51 and 75, and the remaining twelve between positions 76 and 100.

Companies listed in fiscal year 1967 but not in fiscal year 1966

Airlift International, Inc.
Cessna Aircraft Co.
Cities Service Co.
Continental Airlines, Inc.
Dillingham Overseas Corp. & H. B. Zachry Co.
Federal Cartridge Corp.
Gulf Oil Corp.
Hughes Tool Co.
Mason & Hanger-Silas Mason Co.

Companies listed in fiscal year 1967 but not in fiscal year 1966—Continued
Maxson Electronics Corp.
Morrison-Knudsen Co.
Northwest Airlines, Inc.
Ogden Corp.
Pacific Architects & Engineers, Inc.
Smith Investment Co.
Tumpane Co., Inc.
Vinnell Corp.
White Motor Corp.

Companies listed in fiscal year 1966 but not in fiscal year 1967

American Electric, Inc.
Borg-Warner Corp.
Bowman-McLaughlin-York, Inc.
Burlington Industries, Inc.
Burroughs Corp.
Caterpillar Tractor Co.
Clark Equipment Co.
Colt Industries, Inc.
Continental Oil Co.
Control Data Corp.
General Time Corp.
Hayes International Corp.
Hupp Corp.
National Presto Industries, Inc.
United States Steel Corp.
Universal American Corp.
Vitro Corp. of America

In addition to this turnover the following changes affecting companies on the FY 1966 list were noted: McDonnell Aircraft Corp. and Douglas Aircraft Co. merged to become the McDonnell Douglas Corp.; United States Rubber Co. changed its name to Uniroyal Inc.; and Norris Thermador Corp. became Norris Industries Inc.

Although the contract work of many companies on the list involves more than one procurement category, each company has been assigned in the table below to the procurement category that accounts for its largest dollar volume of awards. On this basis, "Missile" companies decreased from 13 in FY 1966 to 7 in FY 1967, while "Service" companies increased from 5 to 10. If the McDonnell Douglas merger is taken into consideration, the aircraft companies increased by 2 instead of by 1 as shown in the table.

Procurement category	Number of companies		Change
	Fiscal year 1966	Fiscal year 1967	
Aircraft	19	20	+1
Missiles	13	7	−6
Ships	3	4	+1
Tanks (automotive)	9	7	−2
Weapons	1	1	
Ammunition	20	19	−1
Electronics	18	19	+1
Services	5	10	+5
Construction	1	2	+1
Petroleum	6	7	+1
Textiles and clothing	2	1	−1
Construction equipment	2	0	−2
Building supplies	1	1	
All other supplies and equipment	0	2	+2

As indicated above the number of companies assigned to "Missiles" declined substantially; however, this decrease does not signify a reduction in dollar awards in the missiles category, since awards totaled more than $4 billion in both FY 1966 and FY 1967. Seven companies were assigned to this category in both years. Of the remaining 6 companies assigned to "Missiles" last year but not this year, 5 made the 100 company list this year assigned to other categories.

The year to year increase in the number of companies assigned to "Services" is indicative of the general rise in the dollar volume of wards in this category. Awards amounted to $3.0 billion in FY 1967 compared with $2.2 billion in FY 1966. This year, 5 air transport companies made the list compared with only two last year. Other additions were involved in operation and maintenance of government facilities and engineering services.

The four non-profit contractors (see Index) listed for FY 1967 are the same as last year. These non-profit contractors, for the most part, provide research, development, and training services in the missile-space and electronics programs.

Five companies received prime contract awards of more than $1 billion each in FY 1967 compared with four companies in FY 1966. Lockheed Aircraft Corp. slipped from the number one position which it held for the five preceding years, and was third after McDonnell Douglas and General Dynamics. The five leading companies and a brief description of their more important work are as follows:

McDonnell Douglas Corp. heads the lost with $2,124.6 million or 5.4% of the total. Last year, prior to merger, the two companies in combination, totaled 3.0%. The aircraft contracts of this company include the F–4 Phantom series of fighter and reconnaissance aircraft, the A–4/TA–4 Jet Attack/Trainer Aircraft, and aircraft modification, overhaul and repair.

General Dynamics Corp. moved into second place on the list, receiving awards totaling $1,831.9 million which represented 4.7% of the fiscal year 1967 total. The fiscal year 1966 percentage for this company was 3.4%. The company received contracts for aircraft, missiles and ships. Aircraft contracts include the F–111 fighter aircraft. Contracts awarded for ships were for alterations, conversions, maintenance and repair as well as for new construction of small craft and submarines. Missiles included components as well as systems.

Lockheed Aircraft Corp. received the same percentage of total awards this year as last year, 4.6%; however, its dollar volume increased by $276.2 million. Lockheed's principal aircraft contracts include the C–5A Jet Transport, the C–141A Starlifter Jet Cargo Transport, the C–130 Hercules Turboprop Jet Transport and the P–3 Orion Patrol Bomber. Missile and satellite activity includes the Agena, Polaris and Poseidon.

General Eelectric Co., whose contracts totaled $1,289.8 million, 3.3% of total, ranks 4th. This compares with $1,187.0 million or 3.5% of total in fiscal year 1966, which was sufficient for second place in that year. Aircraft engines were an important part of this company's production and development effort. Ordnance contracts were for various types of guns and guidance and control systems for missiles. This company also received substantial contracts for electronics equipment and nuclear propulsion systems for ships.

United Aircraft Corp. received contracts amouting to $1,097.1 million, 2.8% of total and is in 5th place. This compares with $1,138.7 million and 3.4% for fiscal year 1966 when they were ranked 3rd. The prime contract work of the company is in the production of aircraft engines and engine spare parts. Contracts for aircraft were for the production of helicopters.

Index of 100 parent companies which with their subsidiaries received the largest dollar volume of military prime contract awards in fiscal year 1967

Rank	*Parent Company*
74.	Aerospace Corp. (N)
83.	Airlift International, Inc.
63.	American Machine & Foundry Co.
88.	American Manufacturing Co. of Texas.
8.	American Telephone & Telegraph Co.
52.	Asiatic Petroleum Corp.
86.	Atlantic Research Corp.
16.	Avco Corp.
23.	Bendix Corp.
82.	Bethlehem Steel Corp.
6.	Boeing Co.
85.	Cessna Aircraft Co.
69.	Chamberlain Corp.
40.	Chrysler Corp.
97.	Cities Service Co.
32.	Collins Radio Co.
78.	Condec Corp.
76.	Continental Airlines, Inc.
66.	Curtiss-Wright Corp.
44.	Day & Zimmerman, Inc.
68.	Dillingham Overseas Corp., & H. B. Zachry Co. (JV)
75.	Dow Chemical Co.
37.	du Pont (E. I.) de Nemours & Co.
57.	Eastman Kodak Co.
80.	Emerson Electric Co.
39.	F M C Corp.
65.	Fairchild Hiller Corp.
72.	Federal Cartridge Corp.
81.	Firestone Tire & Rubber Co.
70.	Flying Tiger Line, Inc.
18.	Ford Motor Co.
2.	General Dynamics Corp.
4.	General Electric Co.
9.	General Motors Corp.
48.	General Precision Equipment Corp.
45.	General Telephone & Electronics Corp.
26.	General Tire & Rubber Co.
41.	Goodyear Tire & Rubber Co.
12.	Grumman Aircraft Engineering Corp.
94.	Gulf Oil Corp.
54.	Harvey Aluminum, Inc.
33.	Hercules, Inc.
20.	Honeywell, Inc.
17.	Hughes Aircraft Co.
84.	Hughes Tool Co.
34.	International Business Machine Corp.
71.	International Harvester Co.
28.	International Telephone & Telegraph Corp.
73.	Johns Hopkins University (N)
22.	Kaiser Industries Corp.
60.	Lear Siegler, Inc.
10.	Ling-Temco-Vought, Inc.
36.	Litton Industries, Inc.
3.	Lockheed Aircraft Corp.
61.	Magnavox Co.
24.	Martin Marietta Corp.
58.	Mason & Hanger-Silas Mason Co.
62.	Massachusetts Institute of Technology (N)
100.	Maxson Electronics Corp.
1.	McDonnell Douglas Corp.
56.	Mobil Oil Corp.
46.	Morrison-Knudsen Co.
96.	Motorola, Inc.
35.	Newport News Shipbuilding & Dry Dock Co.
47.	Norris Industries, Inc.
7.	North American Aviation, Inc.
21.	Northrop Corp.
93.	Northwest Airlines, Inc.
29.	Ogden Corp.
42.	Olin Mathieson Chemical Corp.
59.	Pacific Architects & Engineers, Inc.
55.	Pan American World Airways, Inc.
27.	Radio Corp. of America
14.	Raymond-Morrison-Brown-Jones (JV)
19.	Raytheon Co.
25.	Ryan Aeronautical Co.
50.	Sanders Associates, Inc.
53.	Signal Oil & Gas Co.
95.	Smith Investment Co.
13.	Sperry Rand Corp.
43.	Standard Oil Co. (California)
30.	Standard Oil Co. (New Jersey)
89.	Stevens (J. P.) & Co., Inc.
87.	Sverdrup & Parcel, Inc.
92.	System Development Corp. (N)
51.	T R W, Inc.
67.	Teledyne, Inc.
49.	Texaco, Inc.
64.	Texas Instruments, Inc.
11.	Textron, Inc.
38.	Thiokol Chemical Corp.
98.	Tumpane Co., Inc.
99.	Union Carbide Corp.
31.	Uniroyal, Inc.
5.	United Aircraft Corp.
90.	Vinnell Corp.
79.	Western Union Telegraph Co.
91.	Westinghouse Air Brake Co.
15.	Westinghouse Electric Corp.
77.	White Motor Corp.

(N) —Non-Profit Contractors
(JV)—Joint Venture

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
	U.S. total [1]	39,219.4	100.0	100.0
	Total, 100 companies and their subsidiaries [2]	25,693.1	65.5	65.5
1.	McDonnell Douglas Corp	2,111.6		
	Conductron Corp	5.3		
	Hycon Manufacturing Co	5.0		
	Tridea Electronics Co	2.7		
	Total	2,124.6	5.4	5.4
2.	General Dynamics Corp	1,818.7		
	Stromberg-Carlson Corp	12.8		
	United Electric Coal Co	.4		
	Total	1,831.9	4.7	10.1
3.	Lockheed Aircraft Corp	1,799.8		
	Lockheed Shipbuilding & Construction Co	7.4		
	Total	1,807.2	4.6	14.7
4.	General Electric Co	1,289.8	3.3	18.0
5.	United Aircraft Corp	1,097.1	2.8	20.8
6.	Boeing Co	911.7	2.3	23.1
7.	North American Aviation, Inc	688.8	1.8	24.9
8.	American Telephone & Telegraph Co	158.9		
	Bell Telephone Co. of Pennsylvania	[3]		
	Chesapeake & Potomac Telephone Cos	11.9		
	Moutain States Telephone & Telegraph Co	1.7		
	New England Telephone & Telegraph Co	.6		
	New Jersey Bell Telephone Co	.5		
	New York Telephone Co	.1		
	Northwestern Bell Telephone Co	.2		
	Ohio Bell Telephone Co	.9		
	Pacific Northwest Bell Telephone Co	.2		
	Pacific Telephone & Telegraph Co	.6		
	Southern Bell Telephone & Telegraph Co	2.6		
	Southwestern Bell Telephone Co	1.0		
	Western Electric Co	493.8		
	Total	673.0	1.7	26.6
9.	General Motors Corp	625.0		
	Frigidaire Sales Corp	.1		
	Total	625.1	1.6	28.2
10.	Ling-Temco-Vought, Inc	91.0		
	Continental Electronics Manufacturing Co	4.4		
	Continental Electronics Systems, Inc	[3]		
	Kentron Hawaii, Ltd	12.0		
	LTV Aerospace Corp	310.7		
	LTV Electrosystems, Inc	103.4		
	LTV Ling Altec, Inc	.9		
	Okonite Co. (the)	3.4		
	Wilson & Co	8.9		
	Total	534.7	1.4	29.6
11.	Textron, Inc	16.6		
	Accessory Products Corp	.1		
	Bell Aerospace Corp	478.2		
	Bostitch, Inc	[3]		
	Dalmo Victor Co	[3]		
	Durham Manufacturing Co	[3]		
	Maico Electronics	[3]		
	Speidel Corp	.1		
	Textron Electronics, Inc	1.2		
	Textron Industries, Inc	[3]		
	Townsend Co	.2		
	Total	496.6	1.3	30.9
12.	Grumman Aircraft Engineering Corp	487.7	1.2	32.1
13.	Sperry Rand Corp	484.1	1.2	333.
14.	Raymond International, Inc.; Morrison-Knudsen Co., Inc.; Brown & Root, Inc.; and J. A. Jones Construction Co	462.5	1.2	34.5

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
15.	Westinghouse Electric Corp	442.6		
	Deco Electronics, Inc	3.7		
	Thermo King Corp	6.8		
	Total	453.1	1.2	35.7
16.	Avco Corp	448.6	1.1	36.8
17.	Hughes Aircraft Co	419.5	1.1	37.9
18.	Ford Motor Co	87.4		
	Philco-Ford Corp	316.4		
	Total	403.8	1.0	38.9
19.	Raytheon Co	384.1		
	Amana Refrigeration, Inc	(3)		
	D. C. Heath & Co	(3)		
	Edex Corp	(3)		
	Machlett Laboratories, Inc	18.5		
	Micro State Electronics Corp	.2		
	Raytheon Learning Systems Co	(3)		
	Seismograph Service Corp	.3		
	Total	403.3	1.0	39.9
20.	Honeywell, Inc	313.7	.8	40.7
21.	Northrop Corp	208.5		
	Hallicrafters Co	17.9		
	Northrop Carolina, Inc	10.9		
	Page Communications Engineers, Inc	69.1		
	Total	306.4	.8	41.5
22.	Kaiser Industries Corp	5.5		
	Kaiser Aerospace & Electronics Corp	3.5		
	Kaiser Jeep Corp	145.8		
	Kaiser Steel Corp	18.1		
	National Steel & Shipbuilding Co	132.8		
	Total	305.7	.8	42.3
23.	Bendix Corp	289.3		
	Bendix Field Engineering Corp	4.7		
	Bendix-Westinghouse Automotive Air Brake Co	.7		
	Dage Electric Co., Inc	(3)		
	Fram Corp	.7		
	Microwave Devices, Inc	.1		
	Mosaic Fabrications, Inc	.5		
	P. & D. Manufacturing Co., Inc	.1		
	Sheffield Corp	(3)		
	Total	296.1	.8	43.1
24.	Martin Marietta Corp	274.9		
	Bunker-Ramo Corp	15.3		
	Total	290.2	.7	43.8
25.	Ryan Aeronautical Co	118.9		
	Continental Aviation & Engineering Corp	26.0		
	Continental Motors Corp	136.5		
	Wisconsin Motor Corp	8.7		
	Total	290.1	.7	44.5
26.	General Tire & Rubber Co	17.3		
	Aerojet Delft Corp	.9		
	Aerojet General Corp	224.5		
	Batesville Manufacturing Co	25.1		
	Fleetwood Corp	.1		
	Frontier Airlines, Inc	(3)		
	General Tire International Co	.7		
	Space General Corp	4.4		
	Total	273.1	.7	45.2

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
27.	Radio Corp. of America	268.0		
	National Broadcasting Co., Inc	(3)		
	RCA Institutes, Inc	(3)		
	RCA Defense Electronics Corp	.4		
	Total	268.4	0.7	45.9
28.	International Telephone & Telephone Corp	149.7		
	Barton Instrument Corp	.1		
	Documat, Inc	.1		
	Federal Electric Corp	66.3		
	ITT Gilfillan, Inc	36.1		
	ITT Technical Services, Inc	.8		
	ITT Terryphone Corp	1.1		
	Jennings Radio Manufacturing Corp	.6		
	Puerto Rico Telephone Co	.4		
	Total	255.2	.7	46.6
29.	Ogden Corp	0		
	Avondale Shipyards, Inc	227.5		
	Eimco Corp	.2		
	International Terminal Operating Co., Inc	3.5		
	Ogden Technology Laboratories, Inc	.1		
	SMS Instruments, Inc	1.4		
	Tillie Lewis Foods, Inc	3.3		
	Wilson Foods, Inc	.7		
	Total	236.7	.6	47.2
30.	Standard Oil Co. (New Jersey)	0		
	American Cryogenics, Inc	.8		
	Esso International, Inc	144.3		
	Esso Research & Engineering Co	.7		
	Esso Standard Eastern, Inc	.1		
	Humble Oil & Refining Co	89.2		
	Total	235.1	.6	47.8
31.	Uniroyal, Inc	217.3		
	Uniroyal International Corp	(3)		
	Total	217.3	.6	48.4
32.	Collins Radio Co	201.6	.5	48.9
33.	Hercules, Inc	193.5		
	Haveg Industries, Inc	1.7		
	Total	195.2	.5	49.4
34.	International Business Machines Corp	194.6		
	Service Bureau Corp	.2		
	Science Research Associates	.1		
	Total	194.9	.5	49.9
35.	Newport News Shipbuilding & Dry Dock Co	188.5	.5	50.4
36.	Litton Industries, Inc	17.7		
	Aero Service Corp	(3)		
	Airtron, Inc	(3)		
	Clifton Precision Products Co., Inc	(3)		
	Ingals Shipbuilding Corp	12.0		
	Kestor Solder Co	(3)		
	Kimball Systems, Inc	(3)		
	Litton Precision Products, Inc	7.5		
	Litton Systems, Inc	142.7		
	Monroe Calculating Machine Co	(3)		
	Monroe International, Inc	.2		
	Profexray, Inc	(3)		
	Total	180.3	.5	50.9
37.	du Pont (E. I.) de Nemours & Co	23.3		
	Remington Arms, Inc	156.3		
	Total	179.6	.5	51.4
38.	Thiokol Chemical Corp	172.7	.4	51.8

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
39.	F M C Corp	161.2		
	Ferguson (Harry J.) Co	.2		
	Gunderson Bros. Engineering Corp	8.3		
	Total	169.7	0.4	52.2
40.	Chrysler Corp	164.3		
	Chrysler International SA	.4		
	Chrysler Outboard Corp	(3)		
	Total	164.7	.4	52.6
41.	Goodyear Tire & Rubber Co	60.3		
	Goodyear Aerospace Corp	89.3		
	Goodyear International Corp	.2		
	Kelly-Springfield Tire Co	.1		
	Motor Wheel Corp	4.6		
	Total	154.5	.4	53.0
42.	Olin Mathieson Chemical Corp	154.3	.4	53.4
43.	Standard Oil Co. (California)	86.4		
	Caltex Oil Products Co.[5]	48.3		
	Chevron Asphalt Co	.1		
	Chevron Chemical Co	.9		
	Chevron Oil Co	1.9		
	Chevron Shipping Co	.6		
	Community Oil Co., Inc	.3		
	Pacific Oil Co	.1		
	Standard Oil Co. (Kentucky)	12.0		
	Standard Oil Co. of Texas	2.2		
	Total	152.8	.4	53.8
44.	Day & Zimmerman, Inc	142.2	.4	54.2
45.	General Telephone & Electronics Corp	0		
	Automatic Electric Co	5.9		
	Automatic Electric Sales Corp	1.0		
	General Telephone Co. of the Southwest	.1		
	General Telephone Directory Co	.1		
	General Telephone & Electronics Laboratories, Inc	.1		
	Lenkurt Electric Co., Inc	11.1		
	Sylvania Electric Products, Inc	120.2		
	Total	138.5	.4	54.6
46.	Morrison-Knudsen Co	2.5		
	Ferguson H. K. Co	.4		
	National Steel & Shipbuilding Co.[4]	132.8		
	Total	135.7	.3	54.9
47.	Norris Industries, Inc	127.3		
	Fyr-Fyter Co	.3		
	Total	127.6	.3	55.2
48.	General Precision Equipment Corp	0		
	American Meter Controls	(3)		
	Controls Co. of America	.6		
	General Precision, Inc	112.8		
	General Precision Decca Systems, Inc	.5		
	Graflex, Inc	1.2		
	Strong Electric Corp	1.6		
	Tele-Signal Corp	4.7		
	Vapor Corp	2.8		
	Total	124.2	.3	55.5
49.	Texaco, Inc	24.2		
	Caltex Oil Products Co [5]	48.3		
	Jefferson Chemical Co	.6		
	Texaco Caribbean, Inc	(3)		
	Texaco Experiment, Inc	.8		
	Texaco Export, Inc	45.5		
	Texaco Puerto Rico, Inc	3.7		
	Texaco Trinidad, Inc	(3)		
	White Fuel Co., Inc	1.1		
	Total	124.2	.3	55.8

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
50.	Sanders Associates, Inc	124.0	0.3	56.1
51.	T R W, Inc	120.5	.3	56.4
52.	Asiatic Petroleum Corp	117.2	.3	56.7
53.	Signal Oil & Gas Co	7.7		
	Garrett Corp	104.9		
	Petroleum Heat & Power Co	.1		
	Southland Oil Corp	2.4		
	Space Petroleum Corp	1 7		
	Total	116.8	.3	57.0
54.	Harvey Aluminum, Inc	116.5	.3	57.3
55.	Pan American World Airways, Inc	115.1	.3	57.6
56.	Mobil Oil Corp	109.3	.3	57.9
57.	Eastman Kodak Co	108.4		
	Eastman Kodak Stores, Inc	.3		
	Total	108.7	.3	58.2
58.	Mason & Hanger-Silas Mason Co	108.4	.3	58.5
59.	Pacific Architects & Engineers, Inc	106.9	.3	58.8
60.	Lear Siegler, Inc	87.8		
	American Avitron, Inc	.1		
	Astek Instrument Corp	.5		
	Hokanson (C.G.) Co., Inc	.1		
	L S I Service Corp	11.6		
	T. I. C. Engineers, Inc	.1		
	Transport Dynamics, Inc	.6		
	Total	100.8	.3	59.1
61.	Magnavox Co	98.5	.3	59.4
62.	Massachusetts Institute of Technology	94.9	.2	59.6
63.	American Machine & Foundry Co	93.2		
	AMF Beaird, Inc	(3)		
	AMF Tuboscope, Inc	.1		
	Cuno Engineering Corp	.5		
	Voit (W. J.) Rubber Corp	.3		
	Total	94.1	.2	59.8
64.	Texas Instruments, Inc	93.4		
	Metal & Controls, Inc	.3		
	Total	93.7	.2	60.0
65.	Fairchild Hiller Corp	93.4		
	Burns Aero Seat Co	.1		
	Total	93.5	.2	60.2
66.	Curtiss-Wright Corp	90.8	.2	60.4
67.	Teledyne, Inc	87.8	.2	60.6
68.	Dillingham Overseas Corp. and H. B. Zachry Co	87.6	.2	60.8
69.	Chamberlain Corp	74.0	.2	61.0
70.	Flying Tiger Line, Inc	73.4	.2	61.2
71.	International Harvester Co	72.7	.2	61.4
72.	Federal Cartridge Corp	72.4	.2	61.6
73.	Johns Hopkins University	71.1	.2	61.8
74.	Aerospace Corp	70.8	.2	62.0
75.	Dow Chemical Co	65.5		
	Dow Corning Corp	1.5		
	Total	67.0	.2	62.2
76.	Continental Airlines, Inc	65.7	.2	62.4
77.	White Motor Corp	48.1		
	Hercules Engines, Inc	15.6		
	Minneapolis-Moline, Inc	.9		
	Oliver Corp	.1		
	Total	64.7	.2	62.6

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
78.	Condec Corp	61.9		
	Consolidated Controls Corp	1.1		
	Total	63.0	0.2	62.8
79.	Western Union Telegraph Co	62.4	.2	63.0
80.	Emerson Electronic Co	56.9		
	Pace, Inc	.5		
	Rantec Corp	.1		
	Supreme Products Corp	4.7		
	Total	62.2	.2	63.2
81.	Firestone Tire & Rubber Co	61.0		
	Dayton Tire & Rubber Co	.3		
	Total	61.3	.2	63.4
82.	Bethlehem Steel Corp	54.3		
	Bethlehem Steel Export Corp	3.7		
	Calmar Steamship Corp	2.3		
	Total	60.3	.2	63.6
83.	Airlift International, Inc	59.0	.2	63.8
84.	Hughes Tool Co	58.6	.1	63.9
85.	Cessna Aircraft Co	52.1		
	Aircraft Radio Corp	4.6		
	Total	56.7	.1	64.0
86.	Atlantic Research Corp	56.3		
	Northeastern Engineering, Inc	.2		
	Total	56.5	.1	64.1
87.	Sverdrup & Parcel, Inc	.9		
	A R O, Inc	55.6		
	Total	56.5	.1	64.2
88.	American Manufacturing Co. of Texas	54.9	.1	64.3
89.	Stevens (J. P.) & Co., Inc	53.4	.1	64.4
90.	Vinnell Corp	53.1	.1	64.5
91.	Westinghouse Air Brake Co	14.1		
	Failing (George E.) Co	.3		
	Le Tourneau-Westinghouse Co	2.7		
	Melpar, Inc	15.4		
	Wilcox Electric Co., Inc	19.4		
	Total	51.9	.1	64.6
92.	System Development Corp	50.4	.1	64.7
93.	Northwest Airlines, Inc	50.3	.1	64.8
94.	Gulf Oil Corp	49.8		
	Industrial Asphalt, Inc	.1		
	Total	49.9	.1	64.9
95.	Smith Investment Co	0		
	Smith, A. O., Corp	48.5		
	Total	48.5	.1	65.0
96.	Motorola, Inc	42.7		
	Motorola Communications & Electronics, Inc	5.0		
	Motorola Overseas Corp	.1		
	Total	47.8	.1	65.1

See footnotes at end of table.

100 COMPANIES AND THEIR SUBSIDIARIES LISTED ACCORDING TO NET VALUE OF MILITARY PRIME CONTRACT AWARDS, FISCAL YEAR 1967 (JULY 1, 1966, TO JUNE 30, 1967)—Continued

Rank	Companies	Millions of dollars	Percent of U.S. total	Cumulative percent of U.S. total
97.	Cities Service Co	0		
	Cities Service Gas Co	.5		
	Cities Service Oil Co	39.4		
	Cities Service Tankers Corp	7.6		
	Total	47.5	0.1	65.2
98.	Tumpane Co., Inc	46.9	.1	65.3
99.	Union Carbide Corp	44.5		
	Englander Co., Inc	1.0		
	Korad Corp	.7		
	Ocean Systems, Inc	.6		
	Total	46.8	.1	64.5
100.	Maxson Electronics Corp	45.9		
	Hopkins Engineering Co	.1		
	Total	46.0	.1	65.5

[1] Net value of new procurement actions minus cancellations, terminations, and other credit transactions. The data include debit and credit procurement actions of $10,000 or more, under military supply, service and construction contracts for work in the United States, plus awards to listed companies and other U.S. companies for work overseas.

Procurement actions include definitive contracts, the obligated portions of letter contracts, purchase orders, job orders, task orders, delivery orders, and any other orders against existing contracts. The data do not include that part of indefinite quantity contracts that have not been translated into specific orders on business firms, nor do they include purchase commitments or pending cancellations that have not yet become mutually binding agreements between the Government and the company.

[2] The assignment of subsidiaries to parent companies is based on stockownership of 50 percent or more by the parent company, as indicated by data published in standard industrial reference sources. The company totals do not include contracts made by other U.S. Government agencies and financed with Department of Defense funds, or contracts awarded in foreign nations through their respective governments. The company names and corporate structures are those in effect as of June 30, 1966. Only those subsidiaries are shown for which procurement actions have been reported.

[3] Less than $50,000.

[4] Stockownership is equally divided between Kaiser Industries Corp. and Morrison-Knudsen Co.; half of the total military awards is shown under each of the parent companies.

[4] Stockownership is equally divided between Standard Oil Co. of California and Texaco, Inc.; half of the total of military awards is shown under each of the parent companies.

APPENDIX 8

STATEMENT OF NATIONAL AEROSPACE ASSOCIATION ON CIVIL SERVICE COMMISSION OPINION

NATIONAL AEROSPACE SERVICE ASSOCIATION,
Washington, D.C., November 28, 1967.

Hon. WILLIAM PROXMIRE,
Chairman, Subcommittee on Economy in Government,
The Joint Economic Committee,
Washington, D.C.

DEAR SENATOR PROXMIRE: National AeroSpace Services Association (NASSA) will appreciate inclusion of the attached information in the record of your current hearings.

This provides the position of this industry on the recent Civil Service Commission General Counsel opinion to which Mr. Staats referred in his testimony yesterday.

With kindest regards, I am,

Sincerely,

HARRY S. BAER, *Executive Director.*

PRIVATE INDUSTRY THREATENED BY CIVIL SERVICE OPINION

NASSA NEWS RELEASE NO. 67–10, NOVEMBER 15, 1967

A Civil Service Commission (CSC) legal opinion could have serious impact on private industry's role in performing services under contract for the government, National AeroSpace Services Association (NASSA) warned today.

The opinion itself, authored by CSC General Counsel Leo M. Pellerzi, is not industry's primary concern, NASSA noted, but there is apprehension about how it will be interpreted and implemented. Although it applies mainly to a select few service contracts of National Aeronautics and Space Administration (NASA), its vast comprehensiveness and detail "read like a blueprint for a socialistic state," one NASSA member company president stated.

A 25-year-old national trade association of companies engaged in aerospace services, both commercially and under government contract, NASSA has just completed a survey among its 37 member companies to obtain industry reaction to the Pellerzi Opinion. Strong feelings expressed emphasize that Pellerzi's views present "a highly biased impression that all service contractors are guys in black hats," as one NASSA member who heads a small business doing aircraft maintenance for the Air Force put it.

Recent articles on the Pellerzi Opinion substantiate such concern as some writers failed to limit their coverage to the legal issues concerning the NASA contracts in question. This is due to some extent to the manner in which the Pellerzi material is presented. For example, a Washington newspaper columnist wrote the opinion "is intended to apply, also to all similar contracts throughout government" and predicted that "up to 250,000 employees" would be added to the federal payroll "as replacements for (more costly) contractor personnel." Such statements, NASSA contends, are not based on fact.

Although directed at the Space Agency, the CSC ruling " leaves too much room for interpretation that could force service-type functions in house on a broad basis," another members commented. He feels Pellerzi "dwells on many insignificant factors" in his justification of when a service contract is illegal without providing standards to measure the magnitude of their relative importance. This gives the opinion "vast imbalance," he added.

This contention and NASSA's position gained support from the General Accounting Office (GAO). Although Comptroller General Elmer B. Staats concurs

with the Pellerzi Opinion, GAO is cautious not to overstep boundaries on the primary issue—CSC's charge that the Space Agency contracts are "illegal." In his letter of November 1 to CSC Chairman John W. Macy, Jr., Staats stated GAO concurrence is based on a 1965 legal decision that certain technical support services contracts are "illegal" because, in essence, the contracts supplied people in a function not unlike that of a personnel agency. NASSA members have not been disturbed by this decision as their most valuable contribution under a service contract is their management role—the key to economy and efficiency achievable under the contract concept. The government buys management in its contracts with NASSA member companies.

The Comptrollers General's letter makes an effort to clarify "considerable misunderstanding among government agencies" which has resulted from "a number of generalizations" contained in Pellerzi's paper, GAO legal authorities advised NASSA. (NASSA was the only industry group to contact GAO before completion of Staats' letter of concurrence.) GAO will continue to view "contractor control and supervision" as the main element which determines that a service contract is beyond the purview of the illegality ruling; therefore, not in jeopardy of termination and conversion.

Because the CSC document can be read two ways, it poses peril to industry. Without additional balancing comment, it will "stimulate conversion of contracts to an in-house basis irregardless of the basic illegality issue," says a component overhaul contractor, "and it will deter future contract awards. It is bound to raise doubt about service contracting across the board in the minds of many procurement officials with whom we deal. The in-house route is likely to get the nod, despite higher cost, because the Pellerzi Opinion has created such an imbalance which, taken out of legal context, provides the strongest of endorsement that services should be done almost exclusively by government workers. I am gravely concerned of its potential broad application and our industry will need substantial protection to survive the pressures of the strong groups who will overplay and misinterpret not only the Pellerzi ruling but also the Staats letter to suit their objective of advancing government's tremendous growth—ironically, at a time when both the Executive and Legislative Branches are under pressure to reduce government personnel and cut costs."

A vice president of a NASSA member company engaged in aircraft maintenance under contract for the Army expressed concern for the nation's economy were contract services tranferred en masse to government employees with "resultant loss of tax money from free enterprise activities."

The president of one of the country's largest aircraft engine overhaul companies doing business both under government contract and commercially for airlines and industry mentioned private enterprise's role "to help develop under-developed areas throughout the country and train not only the unemployed but the underemployed." He further commented that "the law which has brought on the illegality issue " should be challenged judicially if it is not serving the best interests of the country, which seems to be the case. We can offer proof that industry does the job better, quicker, and cheaper."

NATIONAL AEROSPACE SERVICES ASSOCIATION

MEMBER COMPANIES

Aero Corp., Lake City, Florida.
Aero Maintenance Radio, Inc., Miami Springs, Florida.
Aerodex, Inc., Miami, Florida.
Air Carrier Engine Service, Inc., Miami, Florida.
Air International, Miami, Florida.
Aircraft Plating, Inc., Miami, Florida.
Aircraft Turbine Service, Inc., Westbury, (L.I.), New York.
Airponents, Inc., Lawrence, (L.I.), New York.
Airtech Service, Inc., Miami, Florida.
Central American Airways, Louisville, Kentucky.
Consolidated American Services, Inc., Los Angeles, California.
Dallas Airmotive, Inc., Dallas, Texas.
Dynalectron Corp., Washington, D.C.
Fairchild Hiller Aircraft Service Div., St. Augustine, Florida.

Gary Aircraft Corp., San Antonio, Texas.
General Dynamics Corp., Fort Worth, Texas.
Hawthorne Aviation, Charleston, South Carolina.
Hayes International Corp., Birmingham, Alabama.
Hylan School of Aeronautics, Rochester, New York.
International Aerospace Services, Inc., Charleston AFB, South Carolina.
Lockheed Aircraft Service Co., Ontario, California.
LSI Service Corp., Santa Monica, California.
LTV Electrosystems, Inc., Greenville, Texas.
Maytag Aircraft Corp., Colorado Springs, Colorado.
National Aircraft Sales, Inc., Dallas, Texas.
Page Aircraft Maintenance, Inc., Lawton, Oklahoma.
Ross Aviation, Inc., Fort Rucker, Alabama.
Serv-Air, Inc., Vance AFB, Oklahoma.
Southern Airways Co., Atlanta, Georgia.
Southern Airways of Texas, Inc., Fort Wolters, Texas.
Southwest Airmotive Co., Dallas, Texas.
Spartan Aircraft Co., Tulsa, Oklahoma.
United Aircraft Corp. (Hamilton Standard Div.), East Granby, Connecticut.

ASSOCIATE MEMBER COMPANIES

Aero Engineering & Manufacturing Co., Glendale, California.
Cee Bee Chemical Co., Inc., Downey, California.
Charlotte Aircraft Corp., Charlotte, North Carolina.
Pennsalt Chemicals Corp., Philadelphia, Pennsylvania.

NATIONAL AEROSPACE SERVICES ASSOCIATION

CODE OF PRINCIPLES

1. To advance and encourage economical, efficient, and ethical development and operation of all aerospace services (the term "aerospace" constituting both aviation-aeronautical and missile-space oriented activities) among companies engaged in various aerospace service-type activities—both commercially and under contract for the government—such as overhaul, maintenance, and modification; flight and technical training; into-plane refueling; base management functions; and other aerospace services accomplished throughout the United States and abroad under the free enterprise system which is the essence of the U.S. principle of government.

2. To cooperate with agencies of the federal, state, and local government and with private organizations to the end that all the above-named aerospace facilities best suited to the national need may be maintained under civilian management and supervision in all instances in whch aerospace servces industry can accomplish a requirement more economically and efficiently within the framework of maintaining the strongest possible national defense.

3. To contribute to the improvement of methods and techniques of civilian contracting and the use thereof by all branches of the armed services and other agencies of the federal, state, and local government—particular emphasis being given such special projects as the Department of Defense Contractor Cost Reduction Program, Zero Defects Program, and other such affirmative programs designed to reduce defense procurement costs and operating expenditures.

4. To assist and to cooperate with executive agencies of government and the Congress in improving methods and techniques of contracting for aerospace services, discouraging such action in individual procurement cases that could bring discredit upon the concept and practice of civilian contracting.

5. To formulate uniform, safe, efficient, and modern techniques in all phases of aerospace training—emphasizing the continued improvement in the safety of flight—and to promote and assist in development and installation of all technological improvements in equipment to aid aerospace navigation and guidance techniques to increase efficiency and to enhance safety of flight.

6. To foster better public understanding of present and potential contributions to the national welfare by greater civilian participation in various phases of aerospace services for the government.

7. To confederate in one organization all those having a mutual interest in furthering the objectives as set forth in this code; to encourage cooperative

relations, including exchange of data and information among the member companies; and to limit membership to those who will maintain and conduct all operations in such manner as to reflect credit as to individual business ethics, responsibilities, and sound standards and as to reflect credit on the organization of National AeroSpace Services Association.

National AeroSpace Services Association

PURPOSE—FUNCTION—HISTORY

National AeroSpace Services Association (NASSA) is a national trade association representing, as a group, companies which are engaged in various aviation and space service-type activities. In behalf of this industry, NASSA maintains direct contact with the Pentagon, Congress, Federal Aviation Agency, National Aeronautics and Space Administration, Small Business Administration, and other government agencies on matters of specific interest and importance to the NASSA membership. NASSA's work is directed at enhancing a favorable business climate for the aerospace services industry—both commercially and under contract with the government. One of its continuing missions—use of civil enterprise for such aerospace services which industry can accomplish more economically and efficiently within the framework of maintaining the strongest possible national security.

Among the varied aerospace services accomplished by NASSA member companies are the following:

Airframe and engine maintenance, modification, overhaul, and repair.

Missile maintenance and support services, such as range instrumentation, collection of missile in flight data, and training support.

Aircraft flight and technical training.

Maintenance, modification, overhaul, and repair of aerospace electronics equipment.

Into-plane refueling.

Air base management and housekeeping functions.

Fixed-base operations, aviation sales and supply, and other aerospace services for commercial industry and the government under contract.

As focal point of the aerospace services industry, NASSA brings together into a national trade association companies with common interests and goals which are of benefit to this specific industry. A primary objective is to advance the use of the contract concept with the Armed Services and other government agencies. This stimulates additional business for the entire industry.

NASSA works with the Armed Forces on policy and procurement matters. It annually holds symposiums with the services which provide an ideal forum for exchange of information between military officials and contractors. Key officials from the Armed Forces, Congress, and the Federal Aviation Agency address the association at its Annual Meeting, held in the spring each year in Washington. Special committees are formed for pertinent tasks when required. NASSA strives continually to keep its membership alert to contract opportunities. It has an efficient system of reporting all matters of interest to member companies.

NASSA was incorporated as a non-profit trade association on December 9, 1942, as Aeronautical Training Society. Its organization was stimulated and approved by Gen H. H. (Hap) Arnold to serve the Army Air Corps during World War II as an association of contract primary flight training schools. Some 60 of these civilian-operated schools trained nearly 200,000 cadets in the World War II effort.

Aeronautical Training Society performed a similar function during the Korean Conflict. From 1952 through 1960, more than 40,000 Air Force pilots received their primary flight training at contract schools. Thousands of pilots from friendly foreign nations were also trained under contract at these schools. On April 29, 1960, it merged with The Aircraft Service Association, which had been established during the Korean War to serve major companies engaged in aircraft overhaul and maintenance. The new organization was called National Aeronautical Services Association.

The association's name underwent slight change on April 10, 1963, when it became known as National AeroSpace Services Association.

APPENDIX 9

STATEMENTS ON "BUY AMERICAN" ACT POLICY

SCHERR-TUMICO, INC.,
St. James, Minn., November 24, 1967.

HON. WILLIAM PROXMIRE,
Chairman, Joint Economic Committee of the Senate Finance Committee, Washington, D.C.

DEAR SENATOR PROXMIRE: We are manufacturers of precision hand tools and measuring instruments. The precision hand tool business has been the main stay of our growth, and while we are twenty-five years old, we are still a small business employing approximately 400 people.

Foreign competition has made deep inroads into our business and has retarded our growth to the point where we wonder whether or not we shall be in business ten years from now. Immediately following World War II, the European type of vernier caliper, which is in demand in this country in large quantities, we found we had to purchase from Germany, because our labor rates would not permit us to be competitive.

Since 1950, the Japanese have increased their quality so that their instruments are equal to ours. Their prices are so much below those of American manufacturers that their exports to this country are increasing tremendously to the point where now American made precision tools purchased in this country are but a small part of the total market here. A wholly owned subsidiary of Mitutoyo in Tokyo, Japan, is an American corporation called the MTI Corporation of New York, which is their sales and distributing firm for the American market. Because of their labor rates, they started after World War II and have become the world's largest manufacturer of precision hand measuring tools.

From the figures we have been able to obtain, so far in the first nine months of this calendar year, the General Services Administration purchased $475,000 worth of micrometers from the Mitutoyo sales outlet here. The 12% differential allowed under the Buy American Act is unrealistic in the light of the difference in the wage rates in Japan and those in the United States. The Defense Department uses a figure of 50%, which makes all the difference as to who gets the award. Why, in the hand tool field, are we granted only a 12% differential when our wage rates are at least two and one half to four times those of the Japanese? Japanese workmen pay no income taxes to help bolster our Treasury.

There are very few American companies left in the precision tool field. Lufkin Rule Company was forced to cease the manufacture of precision hand measuring tools in November of 1966, after having been in the business for almost one hundred years. It is rumored that Millers Falls has discontinued the manufacture of micrometers. With minor exceptions, this leaves the L. S. Starrett Company at Athol, Massachusetts, Brown & Sharpe Manufacturing Company at Providence, Rhode Island, and this corporation as the only manufacturers of precision hand measuring tools in this country. The Government purchases that went to Mitutoyo would have been extremely welcome in this business during the past year and would have been a means of bolstering this corporation's fortunes and assuring our people of continued employment.

It is alarming to note the devastating effect foreign competition has had on this industry, particularly when the United States buys the major portion of these tools from foreign suppliers.

It is my understanding that the Tool Industry Trade Association have gone on record in pointing out the impact that such purchases from foreign manufacturers is having on the American tool economy.

I made a trip to Japan last April to study the situation and received actual figures from our Embassy there as to the dollar and unit shipments of precision hand tools to the United States. I was appalled by the annual growth each year of their exports of these products to this country.

The duty imposed on these imports is very small. There should at least be some limitation factor as to the volume and increase of these imports before it is too late to save our own hand tool industry. The least that could be done is to increase the 12% differential which now exists in the Buy American Act to the 50% as used by the Defense Department.

Your interest in this problem and some remedial action on the part of your Committee will be most appreciated by all who are attempting to maintain the American way of life and still meet competition in our own country.

Very truly yours,

HOWARD M. JAMES, *President and Chairman.*

SERVICE TOOLS INSTITUTE,
New York, N.Y., November 29, 1967.

Subject: Improper Application of Buy American Act in Government Purchasing.

Hon. WILLIAM PROXMIRE,
Chairman, Joint Economic Committee,
New Senate Office Building,
Washington, D.C.

DEAR SENATOR PROXMIRE: Representing the domestic manufacturers of hand tools, including those in the State of Wisconsin, we would again like to bring to your attention the inconsistent hand tool buying policies of the General Services Administration and the Department of Defense under the Buy American Act.

As you know, in the case of GSA, only a 6 percent tool buying differential in favor of domestic manufacturers is permitted, while in the case of the Department of Defense a 50 percent differential in favor of domestic manufacturers is allowed. Because of this disparate policy, foreign bidders are continuing to obtain many awards from GSA with its 6 percent differential, which would not be possible if the procurement were made by DOD. Obviously, if this policy continues the already substantial loss of business by hand tool manufacturers will continue to rise and the USA balance of payments will worsen further.

Since we wrote you on April 12, 1967, the GATT International Trade Negotiations have been concluded at Geneva, with the result that USA import duties on hand tools have been reduced by 50 percent. Under the circumstances, it can be clearly seen that imports of low-wage cost foreign tools, particularly those from Japan, are bound to increase at a faster rate than ever before.

Accordingly, it is most important to the life of this industry and jobs of employees in our domestic hand tool plants that the tool buying differential of the GSA be no lower than the 50 percent currently allowed by the Department of Defense. We respectfully request and urge, therefore, that you and your Committee make every possible effort to have the Bureau of the Budget permit the GSA to adopt this 50 percent tool buying differential currently allowed by the Department of Defense.

This appeal is respectfully submitted on behalf of the domestic hand tool manufacturing companies whose names appear on the attached list.

Also, we respectfully request that this letter be entered in the record of the Hearings now being conducted by the Sub-Committee on Economy in Government of the Joint Economic Committee.

Yours sincerely,

GEORGE P. BYRNE, Jr., *Secretary.*

LIST OF SERVICE TOOLS MANUFACTURERS

A. & E. Manufacturing Co., Racine, Wis.
Advertising Metal Display Co., Rem Line Division, Chicago, Ill.
Apco Mossberg Co., Attleboro, Mass.
Apex Machine & Tool Co., Dayton, Ohio.
Armstrong Bros. Tool Co., Chicago, Ill.
Baltimore Tool Works, Baltimore, Md.
Bergman Tool Manufacturing Co., Inc., Buffalo, N.Y.
Boker Manufacturing Co., Subsidiary of New Britain Machine Co., Maplewood, N.J.
The Bridgeport Hardware Manufacturing Division, Crescent Niagara Corp., Bridgeport, Conn.

C. & G. Wheel Puller Co., Inc., Scio, N.Y.
Cameron Manufacturing Corp., Emporium, Pa.
Channellock, Inc., Meadville, Pa.
Cleco Division, Reed International, Inc., Houston, Tex.
Cornwell Quality Tools Co., Mogadore, Ohio.
Crescent Niagara Corp., Buffalo, N.Y.
Crescent Tool Division, Crescent Niagara Corp., Jamestown, N.Y.
Diamond Tool & Horseshoe Co., Duluth, Minn.
Dowley Manufacturing, Inc., Spring Harbor, Mich.
C. Drew & Co., nIc., Kingston, Mass.
Duplex Manufacturing Corp., Fort Smith, Ark.
Duro Metal Products Co., Chicago, Ill.
Fairmount Tool and Forging, Division of Houdaille Industries, Inc., Cleveland, Ohio.
Fleet Tool Corp., Schiller Park, Ill.
The Forsberg Manufacturing Co., Bridgeport, Conn.
Jo-Line Tools, Inc., South Gate, Calif.
Ken Tool Manufacturing Co., Akron, Ohio.
Kennedy Manufacturing Co., Van Wert, Ohio.
Mathias Klein & Sons, Chicago, Ill.
McKaig-Hatch, Division of Tasa Coal Co., Buffalo, N.Y.
Metal Box & Cabinet Corp., Chicago, Ill.
Midwest Tood & Cutlery Co., Inc., Sturgis, Mich.
Milbar Corp., Cleveland, Ohio.
Millers Falls Co., Greenfield, Mass.
Moore Drop Forging Co., Springfield, Mass.
New Britain Machine Co., New Britain, Conn.
Nupla Manufacturing Co., Los Angeles, Calif.
C. S. Osborne Co., Harrison, N.J.
Owatonna Tool Co., Owatonna, Minn.
P. & C. Tool Co., Portland, Ore.
Park Manufacturing Co., Grant Park, Ill.
Parker Manufacturing Co., Worcester, Mass.
Petersen Manufacturing Co., Inc., De Witt, Nebr.
H. K. Porter, Inc., Somerville, Mass.
Proto Tool Co., Los Angeles, Calif.
The Quality Tools Corp., New Wilmington, Pa.
Reed & Prince Manufacturing Co., Worcester, Mass.
S–K Wayne Tool Co., Subsidiary of Symington-Wayne Corp., Chicago, Ill.
Snap-On Tools Corp., Kenosha, Wisc.
Stanley Tools, Division of the Stanley Works, New Britain, Conn.
Stevens Walden, Inc., Worcester, Mass.
Stream Line Tools, Inc., Conover, N.C.
P. A. Sturtevant Co., Addison, Ill.
Superior Tool Co., Cleveland, Ohio.
Thorsen Manufacturing Co., Oakland, Calif.
Torque Controls, Inc., South El Monte, Calif.
Union Steel Chest Corp., LeRoy, N.Y.
Upson Bros., Inc., Rochester, N.Y.
Utica Tool Company, Inc., Orangeburg, S.C.
Vaco Products Co., Chicago, Ill.
Vaughan & Bushnell Manufacturing Co., Hebron, Ill.
Vlchek Tool Co., Cleveland, Ohio.
Waterloo Industries, Inc., Waterloo, Iowa.
Wilde Tool Co., Inc., Hiawatha, Kans.
J. H. Williams & Co., Buffalo, N.Y.
J. Wiss & Sons Co., Newark, N.J.
Wright Tool & Forge Co., Barberton, Ohio.
Xcelite, Inc., Orchard Park, N.Y.

(The following material was submitted by Deputy Director Hughes:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., January 30, 1968.

Hon. WILLIAM PROXMIRE,
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

(Attention: Mr. Ray Ward.)

DEAR MR. CHAIRMAN: Mr. Ray Ward, of your staff, has asked for additional information regarding two matters which came up during the course of my testimony before the Committee.

With regard to the first (hand tools—Buy American policy), enclosed is copy of a letter to Senator Brooke following up on earlier correspondence and telephone calls, and confirming discussions with a member of his staff. At the hearings of the Joint Committee I indicated that I would report to the Committee on the follow-up with Senator Brooke that the Committee requested. I had neglected to do so.

With regard to the second (Government-owned equipment in contractor plants), enclosed is a copy of a tabulation returned with the transcript when it was sent us for editing. We believe the tabulation responsive to your inquiry in the description on page 394 of the transcript. (See p. 554.)

Sincerely,

PHILLIP S. HUGHES,
Deputy Director.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., January 27, 1968.

Hon. EDWARD W. BROOKE,
U.S. Senate, Washington, D.C.

DEAR SENATOR BROOKE: This is in response to correspondence and telephone calls from you and members of your staff concerning the Bureau of the Budget's application of the Buy American Act in the purchase of handtools by the General Services Administration and the Department of Defense. As you know, I have also met with Mr. Riemer of your staff on the matter.

As the result of an attempt to provide a more efficient and economical government-wide system of procurement, GSA has been given primary responsibility for purchasing handtools for use by all government agencies. DOD and GSA entered into a consolidated purchasing agreement in 1964 in order to eliminate overlapping and duplication within the Government's supply system. Under this agreement, procurement and management control for 52 classes of commodities, including handtools, were transferred to GSA. DOD was given procurement responsibility for all agencies for 98 classes of commodities. The division of procurement responsibility for specific commodities was determined on the basis of the end use of the commodity. GSA was given the procurement responsibility for those items used through the Federal Government or which were commercial in nature. DOD was assigned those items which were essential to military operations.

Total purchases of handtools by GSA were about $107.5 million in fiscal year 1967, foreign procurement amounted to $2.7 million (about 2.5%). Recent analysis by GSA indicates that foreign procurement of handtools would have been significant in FY 1967 (about $1.5 million) even under the application of the DOD 50% differential. As you can see, GSA procurement of foreign handtools is a small part of GSA total handtool procurement and has not been the cause of a dislocation of the American handtool industry. GSA purchase of foreign handtools is also a small part of the value of handtools imported into the U.S.

Furthermore, the difference between effective preference afforded domestic firms under the 6% GSA differential and the 50% DOD differential is not as great as it would first appear. Because the 6% differential is applied to the foreign offered price, *including duties*, while the 50% differential is applied to the offered price *excluding duties*, the difference in the effective preference afforded domestic bidders under the two differentials will be smaller the higher the duties. The average rate of duties on handtools purchased by the GSA is about 23%; thus, using the 6% rule gives domestic bidders 30% effective preference, compared to 50% preference under the DOD 50% rule.

In our continuing review of Buy American practices, higher budgetary costs must be weighed against possible balance of payments savings associated with the application of price differentials in evaluating bids on foreign and domestic products. We must consider also the implication of any change in the differentials on our efforts to reduce trade barriers and on the procurement practices of foreign governments. Defense regulations specify that its existing procurement practice is a temporary measure which will be eliminated when the balance of payments problem is less pressing. While this policy differs from that of civilian agencies, we do not believe the standards now applied by the Department of Defense or other agencies should be changed.

Sincerely,

PHILLIP S. HUGHES,
Deputy Director.

DOD MACHINE TOOL PURCHASES

[In millions of dollars]

	Fiscal year				
	1963	1964	1965	1966	1967
Total	$57.3	$51.2	$45.8	$110.5	$90.1
Ammunition machine tools			3.3	36.3	26.3
Balance			42.5	74.2	63.8

It will be noted that approximately 33 percent and 29 percent of Government purchased machine tools in FY 1966 and FY 1967, respectively, went for the support of the ammunition program which is principally a Government-owned, contractor-operated activity devoted full-time to producing for military needs. Related, but not included in the ammunition machine tool totals, are machine tools which have been purchased for the gun and gun tube programs. Most of these tools are also used exclusively in Government-owned activities.

MPORTS OF MECHANICS' HAND SERVICE TOOLS COMPARED WITH U.S. MANUFACTURERS' SHIPMENTS IN THE DOMESTIC MARKET, ANNUAL TOTAL VOLUMES, IN DOLLAR VALUE

Years and months	U.S. manufacturers' domestic shipments	Percent	Imports into United States	Percent	Total domestic market in United States
1948	$74,512,086	99.8	$169,320	0.2	$74,681,406
1949	60,462,104	99.7	153,780	.3	60,615,884
1950	77,917,482	99.5	411,864	.5	78,329,346
1951	99,130,508	98.9	1,085,172	1.1	100,215,680
1952	96,404,704	98.7	1,278,540	1.3	97,683,244
1953	96,461,867	97.9	2,098,464	2.1	98,560,331
1954	80,560,947	97.2	2,313,396	2.8	82,874,343
1955	93,536,405	96.3	3,560,136	3.7	97,096,541
1956	105,288,665	96.8	3,452,184	3.2	108,740,849
1957	107,225,021	96.3	4,169,460	3.7	111,394,481
1958	106,104,502	95.3	5,234,388	4.7	111,338,890
1959	118,828,160	94.4	7,101,792	5.6	125,929,952
1960	113,429,275	93.5	7,857,720	6.5	121,286,995
1961	116,256,085	94.0	7,462,488	6.0	123,718,573
1962	132,436,090	94.3	7,950,852	5.7	140,386,942
1963	142,053,479	94.3	8,609,403	5.7	150,662,882
1964	158,443,648	94.6	9,003,272	5.4	167,446,920
1965	185,479,573	94.4	10,934,780	5.6	196,414,353
1966	208,103,791	93.7	13,940,479	6.3	222,044,270
1967					
January	15,530,284	91.9	1,363,143	8.1	16,893,427
February	17,632,271	95.0	929,124	5.0	18,561,395
March	19,534,740	92.8	1,508,738	7.2	21,043,478
April	16,957,805	94.0	1,074,101	6.0	18,031,907
May	17,535,402	92.5	1,430,063	7.5	18,965,465
June	18,743,026	93.4	1,323,121	6.6	20,066,147
July	14,200,451	90.7	1,452,471	9.3	15,652,922
August	17,191,593	90.9	1,727,072	9.1	18,918,665

Source: Imports data from U.S. Department of Commerce.

TABULATION SHOWING COMPARISON OF MECHANICS' HAND SERVICE TOOLS IMPORTS WITH U.S. MANUFACTURERS' SALES IN THE U.S. MARKET—DATA ON MONTHLY AVERAGE VOLUME BASIS

[Dollar amounts in thousands

	Annual averages		Monthly average 1st 8 months, 1967	Percent change
	1965	1966		
STI's shipments into domestic U.S. market	$15,457	$17,342	$17,166	−1.0
Imports into United States	911	1,162	1,350	+16.2
Total, domestic market in United States	16,368	18,504	18,516	+.1
Imports of total market (percent)	5.6	6.3	7.3	

COMPARISON, 1ST 8 MONTHS OF 1967 WITH SAME PERIOD IN 1966

[Dollar amounts in thousands]

	Monthly average rate, 1st 8 months, each year		Percent change
	1966	1967	
STI's shipments into domestic market	$16,609	$17,166	+3.4
Imports into United States	1,162	1,350	+16.2
Total, domestic market in United States	17,771	18,516	+4.2
Imports of total market (percent)	6.5	7.3	

IMPORTS—MONTHLY AVERAGE RATE COMPARISON OF SOME HANDTOOL PRODUCTS—FROM U.S. DEPARTMENT OF COMMERCE

[Dollar amounts in thousands]

	1965	1966	1st 8 months, 1967	1967, plus or minus 1966 percent change
(a) Slip-joint pliers	$83,079	$117,685	$102,751	−12.7
(b) Pliers, nippers, pincers, etc	165,659	202,616	244,909	+20.9
(d) Tin snips and parts	4,248	3,214	3,699	+15.1
(f) Bolt and chain cutters and metal cutting shears	12,359	15,056	15,466	+2.7
(g) Pipe wrenches and spanners	60,867	93,803	90,999	−3.0
(h) Pipe tools, pipe wrenches, etc	285,565	350,189	418,285	+19.5
(i) Hammers, etc	55,219	68,156	63,024	−7.1
(k) Chisels and other cutting tools	37,239	39,071	44,586	+14.4
(l) Screwdrivers	73,395	77,736	83,536	+7.5
(n) Interchangeable tools, not metal cutting	81,460	140,906	219,470	+55.8

APPENDIX 10

COMPTROLLER GENERAL'S OPINION ON AUTHORITY OF ADMINISTRATOR OF GSA RE PURCHASE, LEASE, MAINTENANCE, OPERATION OF ADPE

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., November 21, 1967.

B–151204.
B–157587.

Hon. LAWSON B. KNOTT, Jr.,
Administrator, General Services Administration.

DEAR MR. KNOTT: By letter of July 11, 1967, you requested our opinion with respect to the authority of the Administrator of General Services under the provisions of Pub. L. 89–306, 79 Stat. 1127, which amended the Federal Property and Administrative Services Act of 1949 to provide for the economic and efficient purchase, lease, maintenance operation, and utilization of automatic data processing equipment by Federal departments and agencies.

The complete text of Public Law 89–306 reads as follows:

"'Sec. 111. (a) The Administrator is authorized and directed to coordinate and provide for the economic and efficient purchase, lease, and maintenance of automatic data processing equipment by Federal agencies.

"'(b)(1) Automatic data processing equipment suitable for efficient and effective use by Federal agencies shall be provided by the Administrator through purchase, lease, transfer of equipment from other Federal agencies, or otherwise, and the Administrator is authorized and directed to provide by contract or otherwise for the maintenance and repair of such equipment. In carrying out his responsibilities under this section the Administrator is authorized to transfer automatic data processing equipment between Federal agencies, to provide for joint utilization of such equipment by two or more Federal agencies, and to establish and operate equipment pools and data processing centers for the use of two or more such agencies when necessary for its most efficient and effective utilization.

"'(2) The Administrator may delegate to one or more Federal agencies authority to operate automatic data processing equipment pools and automatic data processing centers, and to lease, purchase, or maintain individual automatic data processing systems or specific units of equipment, including such equipment used in automatic data processing pools and automatic data processing centers, when such action is determined by the Administrator to be necessary for the economy and efficiency of operations or when such action is essential to national defense or national security. The Administrator may delegate to one or more Federal agencies authority to lease, purchase, or maintain automatic data processing equipment to the extent to which he determines such action to be necessary and desirable to allow for the orderly implementation of a program for the utilization of such equipment.

"'(c) There is hereby authorized to be established on the books of the Treasury an automatic data processing fund, which shall be available without fiscal year limitation for expenses, including personal services, other costs, and the procurement by lease, purchase, transfer, or otherwise of equipment, maintenance, and repair of such equipment by contract or otherwise, necessary for the efficient coordination, operation, utilization of such equipment by and for Federal agencies: *Provided*, That a report of equipment inventory, utilization, and acquisitions, together with an account of receipts, disbursements, and transfers to miscellaneous receipts, under this authorization shall be made annually in connection with the budget estimates to the Director of the Bureau of the Budget and to the Congress, and the inclusion in appropriation acts of provisions regulating the operation of the automatic data processing fund, or limiting the expenditures therefrom, is hereby authorized.

"'(d) There are authorized to be appropriated to said fund such sums as may be required which, together with the value, as determined by the Administrator,

of supplies and equipment from time to time transferred to the Administrator, shall constitute the capital of the fund: *Provided*, That said fund shall be credited with (1) advances and reimbursements from available appropriations and funds of any agency (including the General Services Administration), organization, or contractor utilizing such equipment and services rendered them, at rates determined by the Administrator to approximate the costs thereof met by the fund (including depreciation of equipment, provision for accrued leave, and for amortization of installation costs, but excluding, in the determination of rates prior to the fiscal year 1967, such direct operating expenses as may be directly appropriated for, which expenses may be charged to the fund and covered by advances or reimbursements from such direct appropriations) and (2) refunds or recoveries resulting from operations of the fund, including the net proceeds of disposal of excess or surplus personal property and receipts from carriers and others for loss of or damage to property: *Provided further*, That following the close of each fiscal year any net income, after making provisions for prior year losses, if any, shall be transferred to the Treasury of the United States as miscellaneous receipts.

"'(e) The provisio following paragraph (4) in section 201(a) of this Act and the provisions of section 602(d) of this Act shall have no application in the administration of this section. No other provision of this Act or any other Act which is inconsistent with the provisions of this section shall be applicable in the administration of this section.

"'(f) The Secretary of Commerce is authorized (1) to provide agencies, and the Administrator of General Services in the exercise of the authority delegated in this section, with scientific and technological advisory services relating to automatic data processing and related systems, and (2) to make appropriate recommendations to the President relating to the establishment of uniform Federal automatic data processing standards. The Secretary of Commerce is authorized to undertake the necessary research in the sciences and technologies of automatic data processing computer and related systems, as may be required under provisions of this subsection.

"'(g) The authority conferred upon the Administrator and the Secretary of Commerce by this section shall be exercised subject to direction by the President and to fiscal and policy control exercised by the Bureau of the Budget. Authority so conferred upon the Administrator shall not be so construed as to impair or interfere with the determination by agencies of their individual automatic data processing equipment requirements, including the development of specifications for and the selection of the types and configurations of equipment needed. The Administrator shall not interfere with, or attempt to control in any way, the use made of automatic data processing equipment or components thereof by any agency. The Administrator shall provide adequate notice to all agencies and other users concerned with respect to each proposed determination specifically affecting them or the automatic data processing equipment or components used by them. In the absence of mutual agreement between the Administrator and the agency or user concerned, such proposed determinations shall be subject to review and decision by the Bureau of the Budget unless the President otherwise directs.'"

Your letter includes a summary of actions which have been taken to date by the Bureau of the Budget and the General Services Administration in getting underway implementation of the concepts inherent in section 111. GSA has prepared draft regulations designed to achieve what are believed to be the objectives of that section—to establish a single purchaser for all general purpose ADPE used by Federal agencies. You point out that the draft of these Government-wide regulations is based upon the interpretation that section 111 provides GSA with exclusive authority to procure all general purpose ADPE for use by Federal agencies but that the regulations will not include procedures or controls which could be interpreted as interfering with determinations of requirements for or use of ADPE by Federal agencies.

With a view to expediting and facilitating the orderly functioning of the procurement processes in the acquisition of ADPE, you request a decision on the question of the extent to which other Federal agencies may have independent authority to procure ADPE. Specifically you ask:

"* * * whether, on the one hand, other agencies are legally required to obtain a delegation of procurement authority from GSA or use GSA as the agency to purchase their general-purpose ADPE, or whether, on the other hand, agencies may acquire ADPE without regard to any actions which might be taken by GSA pursuant to section 111."

Your inquiry is prompted by the fact that although subsections 111 (a) and (b) (1) of the act state that the Administrator shall provide ADPE for use by Federal agencies, they do not in so many words foreclose other agencies from acting without regard to your actions or regulations in the procurement of ADPE. Also, subsection (g) states that GSA is not to interfere with agency rights to select types and configurations of equipment needed. You point out that since selection of types and configurations of equipment is so closely related and interwoven wtih the actual acquisition, subsection (g) might be interpreted as implying authorization to agencies to acquire ADPE. Because the plain meaning associated with "types" in the ADPE field is that of a particular brand name, authority to select types might be considered tantamount to purchase of the equipment.

It is your belief, however, that the right, reserved to using agencies under section (g), to select types of equipment needed refers only to agency determinations regarding what equipment is to be purchased and does not encompass the procurement itself on such equipment.

The language of the act and its legislative history make it clear, in our opinion, that it was the legislative intent to place GSA in the position of acting, subject to direction and control by the President and the Bureau of the Budget, as the Government's single purchaser for all general purpose ADPE estimated to cover about 90 percent of the Government's requirements. At the same time it was recognized that full implementation of this single purchaser concept would necessarily require a considerable period of adjustments. The legislative history shows that the delegation authority provided in subsection (b) (2) was to be resorted to during the period the Administrator would be developing the necessary procedures toward assuming his exclusive jurisdiction in the ADPE area. See the lengthy treatment afforded the concepts underlying the act, as set forth in Senate Report No. 938, dated October 22, 1965; House Report No. 802, dated August 17, 1965; and Hearings before a subcommittee of the house Government Operations Committee on H.R. 4845, March 30, 31 and April 7, 1965.

Subsections 111 (a) and (b) (1) quoted above clearly place authority in the Administrator of General Services and direct him to "provide for the economic and efficient purchase, lease, and maintenance of automatic data processing equipment by Federal Agencies." Any question as to whether such authority and direction were intended to be exclusive is dispelled, it seems to us, by the provisions of subsection (b) (2) and of (e).

Subsection (b) (2) authorizes the Administrator to delegate his functions where he deems it necessary or desirable to do so. Such authority to delegate would not be necessary if the functions involved were not intended to be placed in GSA exclusively.

Subsection (e) eliminates for purposes of section 111 the exemptions granted certain agencies by sections 201(a) (4) and 602(d) of the Property Act with respect to the procurement of personal property generally. When the Property Act was passed in 1949, it was recognized at that time that, due to the peculiar missions of various agencies, complete compliance with uniform procedures might interfere with their operations; therefore certain agencies were granted exemptions in sections 201(a) (4) and 602(d). Subsection 111(e) takes away these exemptions in the administrations of section 111.

We recognize that responsibilities related to determining ADPE requirements, selecting types and configurations and the use to be made of such equipment are divided by a fine line from responsibilities related to actual purchase of the equipment desired. Subsection (g) provides that Administrator of General Services shall not interfer with determinations made by agencies in these areas. But whatever problems may arise between the various agencies and the exercise of GSA's procurement authority, subsection (g) specifically provides for their resolution by the Bureau of the Budget and the President. Again, it hardly seems necessary to spell out a form for settling differences between GSA and the agencies, if GSA's authority were not otherwise intended to be exclusive.

The only evidence which might be interpreted as supporting the independent right of other agencies to procure ADPE, is found in subsection 111(c) and (d) which establish the ADP revolving fund. It could be argued that the authority given to GSA in subsections (a) and (b) (1) is to be invoked only in connection with fund activities, and until there is some affirmative action on the part of GSA to make a fund procurement on behalf of, and at the request of an agency, that agency would be free to continue procuring on its own. We believe, however that this argument is severly weakened by the provision for delegation of author-

ity in subsection (b) (2). If the only exclusive authority the Administrator had been given was authority to purchase ADPE through the revolving fund, there would be no particular need to give him power to delegate procurement authority.

We have carefully reviewed the legislative history of Pub. L. 80–306 and find that it clearly supports the construction reached upon examination of the language of the act itself. Accordingly, you are advised that we concur in your construction of section 111 of the Federal Property and Administrative Services Act of 1949, as amended by Pub. L. 89–306, as providing exclusive authority to GSA to procure all general-purpose ADPE and related supplies and equipment for use by other Federal agencies.

Sincerely yours,

ELMER B. STAATS,
Comptroller General of the United States.

APPENDIX 11

PROCUREMENT INFORMATION FURNISHED BY SENATOR DOMINICK

U.S. MILITARY PROCUREMENT[1] PRACTICES NEED INVESTIGATION

Mr. DOMINICK. Mr. President, reports which have reached me concerning some recent military procurement practices indicate that there is a real cause for concern over the equity, inefficiency, and even perhaps the honesty of some of these practices. In one specific instance, I have asked the Senate Committee on Government Operations to conduct a preliminary investigation to determine whether the facts in that case warrant a full-scale investigation and public hearings on military procurement practices.

In this case, my constituent, Custom Packaging Co., a small business in Aurora, Colo., received less than equitable treatment, to say the least, in its efforts to do business with the Army. The facts in this case are as follows:

Working on its own initiative and expense over a considerable period of time, Custom Packaging Co. developed the concept of a lightweight, shoulder-borne flame weapon with a 2,000- to 3,000-yard range capability. In August 1965, they contacted Army officials at Edgewood Arsenal, Aberdeen, Md. The Army showed a great deal of interest and, after considerable discussion, a demonstration was arranged. The demonstration took place at Edgewood Arsenal on February 14, 1966.

Assurances were given to Custom Packaging Co. by the Army that the company's technological innovations would be fully protected against disclosures to or use by unauthorized persons. Two of the significant innovations introduced by the company were in the basic lightweight design and in the propellant that was used.

Following the demonstration at Edgewood Arsenal, the Army agreed that Custom Packaging Co. should prepare a color sound on film showing the weapon firing nine or 10 rounds. The Army also asked the company to prepare a proposal setting forth the company's capability to produce the weapon, estimates of time and cost factors, and statistics on how much time and money had already been spent by the company on the program.

Custom Packaging Co. submitted the requested film and proposal to the Army on April 15, 1966.

During the summer of 1966, the Marine Corps displayed interest in a preliminary test program with this weapon. Subsequently, on October 16, 1966, Edgewood Arsenal circulated "Requests for Proposals" on a flame weapon system, soliciting quotations from several vendors, including Customs Packaging Co. The invitation called for proposals for research and development, production of 20 weapons and 2,000 units of ammunition. The language of the Edgewood Arsenal description of the weapon and requirements was virtually word for word identical with the "unsolicited" proposal submitted by Custom Packaging Co. on April 15, 1966, at the request of the Army.

On November 16, 1966, Custom Packaging Co. submitted its bid for a fixed price contract in the amount of $167,608. Northrop Nortronics of Anaheim, Calif., a subsidiary of Northrop Aviation, submitted its bid on a cost-plus-incentive fee basis in the amount of $387,000. Seven other bidders submitted quotations ranging from $269,000 to a high bid of $404,000, all on a cost-plus-fixed fee basis. A comparison of the bids of Custom Packaging and Northrop Nortronics shows that the engineering estimates were very nearly the same, but Custom Packaging's bid reflected lower labor rates and lower overhead costs, as well as lower subcomponent costs. Nortronics' bid proposed use of more expensive off-the-shelf, or subcontracted components. Subsequently, by telegram dated January 26, 1967, the Edgewood Arsenal Contracting Office advised Custom Packaging Co. that the award was expected to be made on Monday, February 6, 1967. Thereafter, in

[1] Reprinted from Congressional Record, 90th Cong., 1st sess., Sept. 19, 1967.

a peculiarly unusual procedure, Edgewood Arsenal announced the award of this contract, not on February 6, but on Friday, February 3, 1967, and designated Northrop Nortronics as the successful bidder in spite of the fact that the Northrop bid was more than double the amount bid by Custom Packaging.

Why was this award announced 3 days early? It appears to have been a deliberate attempt to justify an "urgent" classification for this procurement and thereby circumvent Armed Services Procurement Regulation 2–407.9 which generally prohibits an award being made if a timely protest has been filed, except where it has been determined that the award is urgently required.

Now, was there an overriding urgency to justify this award? In my opinion, there was not. In response to my question, Dr. Russel D. O'Neal, Assistant Secretary of the Army for Research and Development, told me that there was no planned production of this weapon systems.

The Army then contended that Custom Packaging Co. had not filed a timely protest to the award. This too was disproven. Mr. Eugene Bates, the president of Custom Packaging Co. had the foresight to process his protest on February 3, 1967, through the Denver Regional Office of the Small Business Administration, who substantiated the fact that both telephonic and telegraphic protests had been sent to the General Accounting Office on that date by Custom Packaging Co.

Mr. President, I interpolate to state that here is a classic example of a small business company trying to do something which will be of help to the whole country, and being cut out completely by giving the bid, at twice the cost, to another company which had never had any experience in the field whatsoever.

Mr. President, it now appears that this is not an isolated case. Other small business firms are having the same kind of difficulty in attempting to compete with the big business manufacturers doing business with the various military departments. Recently the Army Electronics Command, 225 South 18th Street, Philadelphia, Pa., awarded to the Radio Corp. of America a contract for $10,087,431, despite the fact that the Army had on file a bid by a small business concern which was $884,856 lower than RCA's award. This appears to be only the most recent of a long series of slaps at the taxpayers' pocketbook in Army dealings with RCA for this portable, walkie-talkie type radio transmitter-receiver. Let us look at the record from the beginning.

In May 1954, the Department of the Army, Fort Monmouth, N.J., initiated a contract with RCA, Camden, N.J., for the development of this portable radio set which was given the nomenclature AN/PRC–25. Under this contract the Army paid to RCA a total sum of $2,214,857. In October 1961, this radio set was ordered into production when the Army awarded contract No. 89511 on a sole source noncompetitive basis to RCA for a total amount of $20,482,143.68. This covered 8,248 units of this radio at a per unit price of $2,156.91. Of this total $20.5 million, $17,790,000 covered the radio set. The balance of $2,692,143.68 covered ancillary items. These items included manufacturing drawings.

On May 24, 1963, invitations to bid were issued on the second production requirement. This was actually the first competitive bidding allowed on this radio set. Mind you, this was almost a year and a half later. It covered 3,822 units of the AN/PRC–25 radio, plus 1,650 units of the major component, the RT–505 receiver-transmitter. The contract was awarded to the lowest bidder, RCA, at a unit price of $843.37 for the AN/PRC–25. This was $1,313.54 per unit less than the Army had paid for this same radio set to this same firm under the earlier noncompetitive negotiations in October 1961. On February 7, 1964, which was less than a year later the Army again invited bids for the AN/PRC–25 radio. RCA again reduced its unit price; this time to only $736 per unit. Despite the latest reduction, however, on this occasion RCA was unsuccessful in obtaining the award. It went to a manufacturer in Huntington, Ind., who quoted a still lower price.

In March 1965, the Army decided to improve the AN/PRC–25 radio set. It negotiated noncompetitive, sole-source contract No. 01292 with RCA to cover this work. The total cost of this contract was $694,593.

In April 1965, a third round of bidding took place. This was on the original version, not the improved one. RCA again reduced the price; this time quoting $625 per unit for the AN/PRC–25 radio set in an unsuccessful attempt to acquire this award which was made at even lower prices to the Indiana manufacturer, with a set-aside quantity being awarded to a Massachusetts firm.

Four months later, on August 13, 1965, the Army awarded a noncompetitive contract to RCA for 4,158 units of this same AN/PRC–25 radio set at an average

price of $951 per unit. This was done despite the fact that the Army records of only 4 months earlier showed RCA's competitive bid as having been only $625 per unit for the identical equipment.

The improved version of the AN/PRC–25 radio was assigned a new nomenclature. It became the AN/PRC–77. Customarily, the first production contract for any such item is negotiated with the company which did the research and development work. Therefore, in accordance with custom, on June 26, 1966, the Army awarded contract No. 10410 on a noncompetitive, sole-source basis to RCA. It covered 5,737 units of the newly designated AN/PRC–77 at a unit price of $1,222.34.

This contract was for the total amount of $7,619,000. It included $54,834 for production drawings of this AN/PRC–77 radio set.

This contract stipulated delivery of these production drawings by March 31, 1967. Bear this in mind, because this is an important provision in this contract. March 31, 1967, was when the drawings had to be furnished to the Army and the Government as a whole.

Back on June 22, 1966, prior to the June 26 contract award, the Army justified the noncompetitive award of contract No. 10410 on the basis that:

"Drawings, mechanical gauges, and electrical test fixtures are being procured to preclude sole-source on subsequent procurements."

This same statement was repeated on the Army's determination and findings dated December 2, 1966, to justify a subsequent increase in the number of units under this contract. The statement was signed by Maj. Clyde V. Craighead, contracting officer.

In February 1967, the plot seemed to thicken. On February 27, the U.S. Army Electronics Command, Philadelphia, Pa., issued negotiation DAABO5–67–R–1176. This was issued—in secret—as a sole-source, noncompetitive action with RCA. It had a closing date of March 9, 1967. This negotiation proposed a multiyear procurement of radio set AN/PRC–77 and RT–841. The latter item was the major component of the radio transmitter-receiver.

Under date of March 7, 1967, a small manufacturer, Decitron Electronics Corp., 841 Essex Street, Brooklyn, N.Y., submitted a letter-bid to the U.S. Army Electronics Command in Philadelphia. The bid made reference to negotiation DAABO5–67–R–1176, to which I have just referred. It quoted a price of $893.75 per unit for the AN/PRC–77 and a price of $793.75 per unit for the RT–841.

The bid stated that the unit prices quoted actually included all ancillary items of provisions documentation, selection worksheets, initial tool and test equipment lists, and so forth. The Decitron bid even went so far as to suggest to the Army Electronics Command that if the Army doubted Decitron's ability to fulfill the contract, the matter could be referred to the Small Business Administration for a certificate of competency.

Under date of April 5, 1967, the Army Electronics Command, of Philadelphia, in a letter signed by Maj. Clyde B. Craighead, rejected Decitron's bid on the basis of "urgency of delivery and lack of manufacturing drawings." The drawings referred to were the self-same drawings required for delivery by March 31, 1967, under RCA's contract No. 10410. That was 5 days earlier than the date of this letter.

This was the same RCA contract that was previously justified on a sole-source basis for the purpose of obtaining the specific drawings required to avoid the necessity for subsequent sole-source procurement.

On April 28, 1967, the Army awarded contract No. DAABO5–67–C–0170 to RCA covering 10,500 units of the AN/PRC–77 at a price of $937.16 per unit. The total amount of this RCA contract, which included ancillary items, was $10,087,431. This was $884,856 higher than the bid submitted by Decitron.

On June 7, 1967, the Army announced this contract in the Department of Commerce Business Daily—PSA 4326, page 15, column 4. Curiously enough, the Army's announcement stated that the award was only for 3,300 units of the AN/PRC–77 and for 900 units of the RT–841 for a total price of only $4,094,745. The fact of the matter was that this contract was actually in excess of $10 million. On May 31, 1967, this contract—DAABO5–67–C–0170—was increased by modification No. 1, to cover an additional 1,298 units of the AN/PRC–77 for an additional cost of $1,234,684. Further, the Department of Commerce Business Daily later announced another modification, dated August 16, 1967. This one added another $5,992,686 to the total amount of this contract.

The PRESIDING OFFICER. The time of the Senator from Colorado has expired.

Mr. DOMINICK. Mr. President, I ask unanimous consent that I may proceed for an additional 5 minutes.

Mr. BYRD of West Virginia. Mr. President, reserving the right to object, we had hoped to have a little time remaining for the transaction of routine morning business. We have at least one Senator in the Chamber who wishes to take advantage of that time.

I wonder if the Senator might finish his speech in 3 minutes.

Mr. DOMINICK. I will do my best.

The PRESIDING OFFICER. Without objection, the Senator from Colorado is recognized for an additional 3 minutes.

Mr. DOMINICK. Mr. President, it is absolutely inconceivable that this last modification could possibly be justified on the basis of urgency of delivery. The delivery of these units is for a multiyear requirement with options that could allow delivery to span 4 years. Nor could it be justified on the basis of lack of production drawings. After all, the Army, for the American taxpayers, had already given RCA $54,834 to purchase these drawings in the original production contract of June 26, 1966.

Mr. President, the inequities, inefficiencies, and apparent mismanagement in this case, seemed so glaring to me that I sought additional information as to the capability of the Decitron Co. I secured a listing of 36 contracts under which this company had performed for the Department of Defense. Since the majority of these contracts for radio equipment had been awarded by the Navy, I asked the Navy to review its files and advise me whether there had been any history of failure by this company to perform, or any instance in which this company might have been suspected of underbidding and of subsequently applying for extraordinary financial relief under Public Law 85–804. The Navy reported to me that this company had not failed in the performance of any of its contracts for the Navy, and that there was no evidence that the company had sought extraordinary financial relief under Public Law 85–804.

Mr. President, what has made this case even more highly suspect has been the apparent attempts to keep information concerning it from the public. For example: On April 29, 1967, Mr. Robert R. Siegrist, a fully accredited, Washington-based, reporter-commentator with the Mutual Broadcasting System, and a highly respected member of the broadcast community, presented his credentials to the Army and asked some pertinent questions about the transactions of contract DA–36–039–AMC–10410(E), together with all amendments, and a copy of the determination and findings used to justify this award, and also advice as to what disposition was made of the drawings furnished under that contract.

Three and a half weeks later, on May 24, he received a simple acknowledgment from the Department of the Army advising that replies were being prepared to each of his questions. Under date of July 10, 1967, more than 2 months after his initial request, he received a further response from the Army. It advised him that the information he had requested could only be provided if he prepaid a cost of $120.75. That advice was given to a reporter.

Numerous telephone calls in the ensuing 10 days failed to produce results. Finally, after a telephone call to the Assistant Secretary of Defense for Public Affairs, the Honorable Phil G. Goulding, a letter dated July 21 was forthcoming from Gen. Lloyd D. Ramsey, Acting Chief of Public Information, advising that the material would be furnished without cost.

Thus, fully 3 months after this material should have been public information, it was finally made available to the newsmen. But, lo and behold, in response to the question concerning other bidders under this contract, the Army contended that RCA was the only bidder, completely concealing the bid of March 7, 1967, by Decitron.

Mr. President, the factors in this case seem to raise very serious questions as to the relationship existing between the Department of the Army procurement officials and the Radio Corp. of America. I think we should ask the question as to whether any specific benefits have been derived by any one in the Army or elsewhere as a consequence of this peculiar procedure. Why was the significantly lower bid by Decitron, the small electronics firm, rejected under the claim that drawings did not exist when in fact they not only did exist, but the original production contract of June 26, 1966, had specifically required RCA to deliver such drawings for competitive biddings on subsequent procurement? Bear in mind that this was the original contract under which RCA was paid $54,834 on a noncompetitive basis to produce these manufacturing drawings and deliver them by March 31, 1967. Therefore, these drawings were the property of the taxpayers of the United States.

There appears to be a similar pattern in both of the instances I have cited today, and I am certain there must be others. I suggest that Congress may be well advised at this time to begin an indepth investigation into our military procurement procedures. We owe it to our taxpayers that every step be taken by those spending the taxpayers' funds to insure highest efficiency at the lowest cost. And we owe it to the small businessman that he be treated equitably and fairly in his dealings with Federal procurement officials. There seems to be growing reason to question whether either is being done in many cases coming to light at present.

Unnecessary Costs in Procurement of Radar Sets [1]

Mr. Dominick. Mr. President, on September 19, I delivered a speech concerning two different Army procurements, one of which involved the AN/PRC–25 and AN/PRC–77 radio sets awarded to Radio Corporation of America in a multiyear procurment which the Army attempted to justify on the basis of lack of manufacturing drawings and also because of a supposed urgency for delivery. This award was made to RCA in spite of the fact that a small business firm had on file a bid which was lower by almost $1 million for this identical equipment.

The claim by the Army regarding the lack of manufacturing drawings appears as specious as the urgency of delivery claim is fallacious. I have been reliably informed that the drawings do exist and that delivery of these radio sets 2 years from now is not urgent.

Mr. President, on September 21, 1967, I received a letter from the Office of the Assistant Secretary of the Army signed by the Honorable Robert A. Brooks, which actually states that drawings are not available and, I quote:

"RCA was awarded a contract in June 1966 to produce the initial production quantities while further design changes and improvements were being affected."

Mr. Brooks goes on to state that:

"As a matter of fact, due to design changes resulting from concurrent field tests, the final procurement package will not be available until early December, 1967."

In other words, Mr. President, what Mr. Brooks is saying is that the Army is engaged in a development program running parallel with two production contracts which exceed $20 million for portable walkie-talkie radio sets.

This is the exact same practice that has been investigated by the General Accounting Office on radar set AN/PPS–4 and radiacmeter IM–108/PPD involving millions upon millions of dollars wasted by the Army in producing electronic equipment in quantity before the design was frozen.

In the case of the IM–108/PD radiacmeter, five separate and distinct contracts were awarded for 59,776 units, resulting in a waste of the taxpayers funds of a total of $2.9 million for defective equipment. Moreover, in its decision rendered on this case, the General Accounting Office recommended that the engineers in charge of that fiasco be fired, and they were in fact removed from the Government payroll only long enough for the national press to give its attention to more important matters. Whereupon, the Army quietly reinstated these same men, using as an excuse the fact that they had admitted they were wrong and promised not to do it again. This is incredible, but true.

Mr. President, I ask unanimous consent that the reports from the Comptroller General Nos. B–146834 and B–146906 be printed in the Record.

There being no objection, the reports were ordered to be printed in the Record, as follows:

"Unnecessary Costs Incurred in Sole-Source Procurement of Portable Radar Sets, Department of the Army

"(Report to the Congress of the United States by the Comptroller General of the United States, October 1964)

"*To the Speaker of the House of Representatives and the President pro tempore of the Senate:*

"Our review of sole-source procurements by the Department of the Army disclosed that the Government had incurred unnecessary costs of more than $2.2

[1] Reprinted from Congressional Record, 90th Cong., 1st sess., Sept. 28, 1967.

million in the sole-source procurement of 502 AN/PPS–4 portable radar sets. These unnecessary costs were incurred because agency officials procured the radar sets without waiting until known deficiencies in the sets had been corrected and technical data suitable for use in competitive procurement had become available. The deficiencies known prior to procurement were that the radar sets were not consistently accurate in determining the range of a target, were unable to detect a target satisfactorily, and were cumbersome to operate. After the contract for the sole-source procurement was awarded, it was necessary to stop production for 15 months while modifications were being made to correct these deficiencies. This delay unnecessarily increased the cost of the corrected units by $356,220. In addition, we estimated that, on the basis of competitive prices obtained in a subsequent procurement, unnecessary costs of about $1.86 million had been incurred because these sets had been procured without competition. In fact the successful bidder's price under the competitive procurement was more than 55 percent below the price paid to the sole-source producer.

"The Acting Assistant Secretary of the Army (Installations and Logistics) agreed with the facts presented in the report and advised us that the report would be brought to the attention of procuring commands. He also indicated that, subsequent to the procurement in question, more extensive controls were instituted regarding procurement of new equipment that included the requirement that a summary of all objections to a proposed procurement be submitted to higher authority. This summary is to include engineer- and service-test results.

"The Acting Assistant Secretary also stated that disciplinary action was not believed to be warranted because the decisions with respect to this procurement were made in accordance with the then accepted policy and that, when considered in light of the then prevailing policy, the facts presented were considered proper justification for these decisions. Officials in the Office of the Assistant Secretary of the Army (Installations and Logistics) subsequently advised us that, at the time of this procurement, there was an absence of guidance and control over the procurement of new equipment, generally, but that the Army's policy was that development and production of an item could be effectively accomplished simultaneously. Procuring officials in this instance, however, had been aware of the user and engineer objections prior to awarding this contract but had requested approval from higher authority for the award without disclosing this information. We believe, therefore, that these actions should be noted in the personnel records of responsible officials, for consideration in the future promotions, reassignments, and other personal actions.

"The management weaknesses disclosed in this report have occurred in the past and have been identified in other General Accounting Office reports. We reported on the Department of the Army's procurement of defective radiation-measuring instruments (B–146834, dated December 17, 1963). Under 5 contracts for this equipment the Army spent $3.8 million even though it knew prior to each contract that the equipment was defective. We recently reported also on the noncompetitive procurement of military ¾-ton trucks (B–146921, dated August 12, 1964). By procuring these vehicles without competition, the Army incurred unnecessary costs estimated at $12.1 million even though it could have obtained the information sufficient for competitive procurement purposes. As stated in this report and in previous reports, action has been taken by the Department of the Army to promulgate policies and regulations controlling the procurement of new equipment and to intensify its efforts to promptly obtain technical data for competitive procurement purposes. We will evaluate the effectiveness of these actions in future reviews.

"Copies of this report are being sent to the President of the United States, the Secretary of Defense, and the Secretary of the Army.

"JOSEPH CAMPBELL,
"Comproller General of the United States."

"INTRODUCTION

"The General Accounting Office has made a review of the procurement of AN/PPS–4 portable radar sets by the Department of the Army. The purpose of our review was to inquire into the reasonableness of the award of a contract for these sets to Sperry Gyroscope Company (Sperry), Great Neck, Long Island, New York, on a sole-source basis. This review was initiated in connection with a request dated May 13, 1963, from Congressman George H. Mahon on behalf of the Subcommittee on Defense, Committee on Appropriations, House of Representa-

tives, that the General Accounting Office make a review of electronics equipment with particular emphasis on sole-source procurements. This review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67). The scope of our review is shown on page 15 of this report.

"BACKGROUND

"The general policy of the Department of Defense, as set forth in the Armed Services Procurement Regulation (ASPR), section 1–300.1, provides that all procurements, whether by formal advertising or by negotiation, shall be made on a competitive basis to the maximum practicable extent. The responsibility for implementing these provisions is assigned to each military department. The Department of the Army has assigned this responsibility to each major subcommand of the United States Army Materiel Command (AMC).

"The United States Army Electronics Command, a major subcommand of AMC, was established in August 1962 and assumed most of the logistic functions previously performed by the Office of the Chief Signal Officer, United States Army. This command has the responsibility for the research, design, development, testing, and supply management of electronic equipment.

"In a recent reorganization of the major agencies within the Electronics Command, the United States Army Electronics Materiel Agency (referred to in this report as the Materiel Agency) and the United States Army Electronics Materiel Support Agency (referred to in this report as the Support Agency) have been replaced by various directorates. The responsibility for the procurements discussed in this report now rests with the Philadelphia Division of the Procurement and Production Directorate, United States Army Electronics Command.

"The duties formerly performed by the Materiel and Support Agencies and presently being performed by the newly established directorates include computation of requirements, control of inventories, award and administration of contracts, provision of engineering specifications for procurement of electronic equipment, performance or monitoring of preproduction testing and qualification, and approval of equipment.

"In order to determine whether newly developed equipment is acceptable for Army use, the Department of Defense procedures require the cognizant military department to test such equipment prior to authorizing a contractor to commence production. These tests are generally referred to as service tests. The purpose of the tests is to determine the physical and operational characteristics, organizational maintenance requirements, and whether the equipment will be accurate, durable, and reliable when subjected to use by troops in the field.

"The AN/PPS–4, developed by Sperry, is a silent, lightweight, portable, forward-area, combat-surveillance radar set used by infantry troops. This set is capable of detecting and locating moving targets and certain fixed targets under conditions of poor visibility. The Army procured 10 radar sets in June 1955 for experimental tests and evaluations. In August 1956 the Army procured eight additional sets with various modifications for further testing. The service tests of the developmental and preproduction models were conducted for the Electronics Command by the United States Continental Army Command (USCONARC) under actual field conditions. Subsequent to the Army reorganization in August 1962, the United States Army Test and Evaluation Command was given the responsibility for performing service tests on newly developed equipment.

"Since June 1958, a total of 1,437 radar sets and related items have been procured by the Materiel Agency for about $10.9 million.

"A list of principal management officials of the Department of Defense and the Department of the Army responsible for the administration of activities discussed in this report is shown as appendix I.

"FINDING AND CONCLUSIONS

"*Unnecessary costs incurred in the sole-source procurement of portable radar sets*

"The Government has incurred unnecessary costs of more than $2.2 million in the sole-source procurement of 502 AN/PPS–4 portable radar sets by the Department of the Army. These unnecessary costs were incurred because agency officials procured the radar sets without waiting until known deficiencies in the sets had been corrected and technical data suitable for use in competitive procurement had become available. The deficiencies known prior to procurement were that the

radar sets were not consistently accurate in determining the range of a target, were unable to detect a target satisfactorily, and were cumbersome to operate. After the contract for the sole-source procurement was awarded, it was necessary to stop production for 15 months while modifications were being made to correct these deficiencies. This delay unnecessarily increased the cost of the corrected units by $356,220. In addition, we estimated that, on the basis of competitive prices obtained in a subsequent procurement, unnecessary costs of about $1.86 million had been incurred because these sets had been procured without competition. In fact the successful bidder's price under the competitive procurement was more than 55 percent below the price paid to the sole-source producer.

"Initial award and service-test results

"In June 1958 fixed-price redeterminable contract DA–36–039–SC–76361 was awarded by the Materiel Agency to Sperry Gyroscope Company on a sole-source basis at a cost to the Government of $3,474,962, for the production of 462 vacuum-tube radar sets. The vacuum-tube model, suitable for Army use only as interim equipment, did not satisfactorily meet the Army's need because of its excessive weight and noise. This interim equipment was procured to furnish field units with combat-surveillance capabilities at a time when field units had no other equipment that could perform its function. This contract was awarded without the benefit of competition, and the Army justified the sole-source procurement on the basis that the Government did not have procurement data that were suitable for use in soliciting competitive bids. We did not ascertain the validity of the Army's justification at that time. The contract required that an updated set of drawings suitable for use in competitive procurement be delivered 30 days after the initial production equipment was submitted for acceptance.

"In January 1959, about 7 months after the award of the contract for 462 vacuum-tube radar sets, the Electronics Command accepted a plan, submitted by Sperry to partially transistorize the radar sets. This plan was approved, and the partial transistorization was expected to result in the silent operation of the radar sets because a battery, rather than a gasoline-engine generator would be the primary source of power. The Materiel Agency reduced the quantity of radar sets on order from 462 to 402 by a contract modification, thus making $440,000 available toward offsetting the increased costs of $526,000 for the partial transistorization of the radar sets. The final contract price for 402 sets, including partial transistorization and other changes, was $3,704,108.

"In March 1960, USCONARC completed service tests of two preproduction models of the partially transistorized radar sets and concluded that (1) 3 of the deficiencies found in the service tests of the vacuum-tube-type developmental models had been carried over into the partially transistorized version without correction and (2) 20 of 29 new deficiencies found, when considered collectively, were so serious that corrective action was deemed mandatory prior to acceptance and issuance of these sets to troops. Among the major deficiencies noted and their effects on performance of the radar set were (1) erroneous range calibration, which resulted in loss of acceptable range accuracy, (2) transmission failure, which resulted in unsatisfactory detection of a target, and (3) faulty tripod design, which contributed to the cumbersome operation of the radar set and required, in many instances, time-consuming operations to realign the tripod legs. The Support Agency issued technical-action requests to the contractor in April and May 1960 that included actions to correct the above-cited deficiencies prior to production.

"Additional procurement

"Review and approval of proposed procurements of certain items at the Materiel Agency is performed by the Procurement Planning Committee. This committee consists of three officials of the Materiel Agency, the Chief Engineer of the Support Agency, and a secretary appointed by the chairman of the committee. On May 10, 1960, the Support Agency's Chief Engineer recommended that the committee require that all improvements to the radar sets recommended by USCONARC be incorporated in the 502 additional radar sets to be procured under a modification to contract –76361. He further recommended that the contract modification negotiated should provide that the improvements be made when the sets were produced, which would preclude the necessity for engineering changes for that purpose subsequent to award of the contract modification. At that time the Procurement Planning Committee consisted of:

"Col. J. G. Bent, Jr., Deputy for Procurement, Materiel Agency (chairman).
"S. Rabinowitz, Assistant Deputy for Procurement, Materiel Agency (alternate chairman).
"J. W. Weseloh, Chief Engineer, Support Agency.
"Lt. Col. P. F. Balas, Assistant Deputy for Stock Control, Materiel Agency.
"L. A. Kapust, Assistant Deputy for Industrial Preparedness, Materiel Agency.
"J. H. Schroeter, Secretary, Procurement Planning Committee, Materiel Agency.

"On May 13, 1960, the Committee agreed that the proposed procurement should be made in accordance with the recommendations of the Support Agency's Chief Engineer. On June 15, 1960, however, in a request to the Chief Signal Officers for approval of the modification to contract –76361, the Deputy for Procurement of the Materiel Agency failed to disclose that negotiations had already been held with Sperry on June 2 and June 6, 1960, on the basis that the improvements would not be required to be made in the sets to be procured under the contract modifications. Further, on June 17, 1960, the Assistant Deputy for Procurement approved the Committee's request that the USCONARC-recommended improvements not be required in these sets. We were informed that this decision was made because previous negotiations with Sperry had been on that basis and that apparently this decision overrode the objections of the Support Agency's Chief Engineer. We could find no evidence that the Chief Signal Officer was subsequently informed of the decision not to make the improvements—considered mandatory by user and engineer organizations—to the 502 radar sets subsequently ordered.

"On June 30, 1960, the Materiel Agency procured an additional 502 partially transistorized radar sets from Sperry, at a cost to the Government of $3,267,016, under a modification to contract –76361. Subsequent modifications increased the cost to $3,358,270, or a unit price of $6,690. The records show that the sole-source *procurement of this additional quantity was justified by the Army on the basis that adequate procurement data were not available for use in soliciting competitive bids.* The contracting officer did not state that urgency was a factor in the decision to procure on a sole-source basis.

"Stop-work order

"On August 29, 1960, 2 months after the award for the 502 radar sets, the Materiel Agency issued an order to Sperry to stop all production. This stop-work order was issued so that improvements, modifications, and engineering changes could be incorporated into the 402 radar sets being produced under the basic contract. These changes were necessary to correct serious deficiencies identified by USCONARC in March 1960 in its service tests of the developmental and preproduction models. These are the same changes which, prior to procurement under the contract modification, the Support Agency's Chief Engineer had recommended be required to be incorporated in the 502 radar sets proposed for procurement.

"The stop-work order, which was in effect for 15 months, was canceled, and authority to proceed with production was issued by the contracting officer on November 29, 1961. This work stoppage resulted in unnecessary costs of $356,220, which were attributable to increased labor costs and to a loss in efficiency resulting from the 15-month gap in production. This amount increased the total price to he Government for the 502 sets to $3,714,490, the amount agreed upon with Sperry in a price redetermination made in March 1962.

"In October 1961 the Army completed service tests at the Tobyhanna Army Depot of the partially transistorized radar sets. The sets tested included the improvements that had been recommended by USCONARC and required improvements identified in subsequent tests. The Army then concluded, on the basis of these tests, that the partially transistorized radar sets would be accepted as suitable to the user and that the same improvements should be incorporated into all the 904 sets then being procurred under the contract –76361. These partially transistorized radar sets were subsequently shipped to Army units for use.

"Savings resulting from competition

"On March 23, 1962, the Materiel Agency received procurement data, in the form of Government specifications and a model from the Support Agency, that were determined to be suitable for use in soliciting competitive bids. On April 16,

1962, the Procurement Planning Committee approved the plan to procure about 436 portable radar sets by formal advertising.

"On April 26, 1962, the Materiel Agency issued an invitation for bids for various quantities of the radar sets. Twenty bids were received, 10 of which were lower than the bid of $4,489 a set submitted by the sole-source producer, Sperry. The unit prices in these 10 bids ranged from $2,978 to $4,280. The lowest acceptable bid by quantity and unit price was submitted by Aeronca Manufacturing Corporation for 454 radar sets at $2,978 each. The Materiel Agency awarded contract DA-36-039-AMC-01087(E) to Aeronca on August 24, 1962, for the 454 radar sets at a price of $1,372,873.

"The lowest acceptable bid price of $2,978 a unit was a reduction of $3,712, or 55.5 percent, from the unit price of $6,690 previously paid the sole-source producer under the modification to contract -76361, or a total reduction of about $1.86 million. Further, personnel of the Materiel Agency advised us that Aeronca's performance under the contract was satisfactory and records indicate that, during December 1963 and January 1964, 73 radar sets were accepted by the Army, 45 of which were shipped overseas for use in the field.

"Agency comments and our evaluation

"On April 30, 1964, we brought these findings to the attention of the Department of Defense and proposed that the Commanding General, United States Army Materiel Command, bring this report to the attention of procuring commands, to emphasize the need to (1) develop equipment, prior to procurement, to a point where major modifications would not be required and (2) accumulate the procurement data necessary to permit timely solicitation of bids for competitive procurement. We proposed further that the procuring agencies be required to bring to the attention of higher authority all objections to planned procurements raised by interested parties, including the using and engineering organizations, so that the approving officials would be in a position to consider these objections in their evaluation of the proposed contract. *We proposed also that the Secretary of the Army take disciplinary action in this matter against those individuals who did not properly perform their duties and exercise prudent judgment in expending significant amounts of Government funds.*

"By letter dated June 26, 1964 (see appendix II), the Acting Assistant Secretary of the Army (Installations and Logistics) commented on our findings and proposals. He agreed with the facts presented in this report and advised us that a digest of this report would be brought to the attention of procuring commands. He agreed also that all objections in connection with a proposed procurement which might be raised by interested parties should be included in the facts presented to approving officials for their consideration, and he indicated that, subsequent to the procurement in question, more extensive controls were instituted regarding procurement of new equipment that included the requirement that a summary of such information be submitted to higher authority. This summary is to include engineer- and service-test results. His additional comments are summarized as follows:

"1. Army studies and reports on combat-surveillance and target-acquisition equipment covering the period fiscal years 1958-63 reflected continual emphasis upon the urgent need for this type of equipment. There was a concerted effort on the part of the Army to acquire a combat-surveillance capability as quickly as possible during that period of time. Under the Army reorganization, more extensive controls come into play in the event that urgency justifies procurement for troop issue before completion of the development and adoption as a standard item. The Combat Development Command is responsible for making recommendations to the Department of the Army on the urgency of a requirement of this nature. Further, the provisions of AR 700-20, dated July 25, 1963, require the satisfaction of 25 criteria before initiating production in a situation of this type.

"Although there was a need for equipment of this type, the fact remains that the using forces did not want the particular equipment then being considered for procurement until major deficiencies in the equipment had been corrected. On the basis of the previous negotiations with Sperry, the contract modification—contrary to the Procurement Planning Committee's initial agreement—did not provide that corrections be made when the sets were produced.

Further, the basis for the Army's justification for the sole-source procurement was not urgency but inadequate procurement data for use in soliciting competitive bids.

"2. The recommended disciplinary action was not believed to be warranted. The decisions with respect to the award in question were made in accordance with what was then accepted policy. The facts as presented, when considered in the light of the prevailing policy, were considered proper justification for the decisions.

"Officials in the Office of the Assistant Secretary of the Army (Installations and Logistics), in response to our request for clarification of the above comment, stated that, at the time of this procurement, there was an absence of guidance and control over the procurement of new equipment generally but that the Army's policy was that development and production of an item could be effectively accomplished simultaneously. Procuring officials in this instance, however, had been aware of the user and engineer objections prior to awarding this contract but had requested approval from higher authority for the award without disclosing this information.

"Conclusions

"We believe that, generally, production contracts for new equipment should not be awarded when the results of service tests performed by the user on developmental or preproduction models had disclosed deficiencies that rendered the item unsuitable for field use. We believe also that efficiency and economy are obtained for the Government by the maximum practical use of competition in procurement programs.

"As disclosed in this report, deficiencies had been identified in the developmental and preproduction models of the partially transistorized radar sets that rendered them unsuitable for Army use. Notwithstanding the serious deficiencies found by USCONARC, a decision was made by the Materiel Agency to procure an additional quantity of 502 radar sets on a sole-source basis. Further, the Materiel Agency's stated reason for procuring radar sets on a sole-source basis was that it lacked the procurement data necessary to solicit competitive bids. If the Materiel Agency had waited until an acceptable radar set was designed and procurement data suitable for solicitation of competitive bids became available, as provided for under the initial contract, the Agency could have procured the 502 radar sets at a savings of 55.5 percent, or about $1.86 million. Also, the Army could have avoided costs of $356,220 paid for the work stoppage under the contract modification for the 502 sets while the deficiencies identified in the developmental and preproduction models under previous awards were being corrected.

"The Army advised use of the corrective actions taken to preclude recurrence of situations such as this, and we will evaluate them in future reviews. In view of the fact that responsible officials (1) were aware of the deficiencies in the equipment and objections of the using forces to buying this equipment prior to the correction of these deficiencies and (2) requested approval for the award without disclosing the user and engineer objections, however, we believe that these actions should be noted in their personnel records, for consideration in future promotions, reassignments, and other personnel actions.

"The management weaknesses disclosed in this report have occurred in the past and have been identified in other General Accounting Office reports. We reported on the Department of the Army's procurement of defective radiation-measuring instruments (B–146834, dated December 17, 1963). Under five contracts for this equipment the Army spent $3.8 million even though it knew prior to each contract that the equipment was defective. We recently reported also on the noncompetitive procurement of military ¾-ton trucks (B–146921, dated August 12, 1964). By procuring these vehicles without competition, the Army incurred unnecessary costs estimated at $12.1 million even though it could have obtained the information sufficient for the competitive procurement purposes. As stated in this report and in previous reports, action has been taken by the Department of the Army to promulgate policies and regulations controlling the procurement of new equipment and to intensify its efforts to promptly obtain technical data for competitive procurement purposes. We will evaluate the effectiveness of these actions in future reviews.

"SCOPE OF REVIEW

"Our review included an examination of the records and reports relative to the development, testing, sole-source procurement, modification, and use of the AN/PPS-4 radar set within the Department of the Army for the period April 1955 to January 1964. Our review was made at the United States Army Electronics Materiel Agency, Philadelphia, Pennsylvania, and at the United States Army Electronic Materiel Support Agency and the United States Army Electronics Research and Development Laboratory, both of which are located at Fort Monmouth, New Jersey.

PRINCIPAL MANAGEMENT OFFICIALS OF THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE ARMY RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From—	To—
DEPARTMENT OF DEFENSE		
Secretary of Defense:		
Robert S. McNamara	January 1961	Present.
Thomas S. Gates, Jr	December 1959	January 1961.
Neil H. McElroy	October 1957	December 1959.
Charles E. Wilson	January 1953	October 1957.
Assistant Secretary of Defense (Installations and Logistics):		
Thomas D. Morris	January 1961	Present.
Perkins McGuire	January 1957	January 1961.
DEPARTMENT OF THE ARMY		
Secretary of the Army:		
Stephen Ailes	January 1964	Present.
Cyrus R. Vance	July 1962	January 1964.
Elvis J. Stahr, Jr	January 1961	June 1962.
Wilber M. Brucker	July 1955	January 1961.
Robert T. Stevens	February 1953	July 1955.
Assistant Secretary of the Army (Installations and Logistics):		
Daniel M. Luevano	July 1964	Present.
A. Tyler Port (acting)	March 1964	July 1964.
Paul R. Ignatius	May 1961	February 1964.
Unfilled	January 1961	May 1961.
Courtney Johnson	April 1959	January 1961.
Frank Higgins	August 1954	April 1959.
Chief of Staff, U.S. Army:		
Gen. Harold K. Johnson	July 1964	Present.
Gen. Earle G. Wheeler	October 1962	June 1964.
Gen. George H. Decker	September 1960	September 1962.
Gen. Lyman L. Lemnitzer	July 1959	September 1960.
Gen. Maxwell D. Taylor	June 1955	June 1959.
Gen. Matthew B. Ridgway	July 1953	June 1955.
Deputy Chief of Staff (Logistics):		
Lt. Gen. Lawrence J. Lincoln	August 1964	Present.
Lt. Gen. R. W. Colglazier, Jr	July 1959	July 1964.
Lt. Gen. Carter B. Magruder	May 1955	June 1959.
Lt. Gen. Williston B. Palmer	October 1952	April 1955.
Commanding general, U.S. Army Materiel Command: Gen. Frank S. Besson, Jr.	July 1962	Present.
Commanding general, U.S. Army Electronics Command:		
Maj. Gen. Frank W. Moorman	August 1963	Do.
Maj. Gen. Stuart S. Hoff	August 1962	August 1963.
Chief signal officer (position abolished Mar. 1, 1964):		
Maj. Gen. E. F. Cook	---do	March 1964.
Maj. Gen. Ralph T. Nelson	May 1959	August 1962.
Maj. Gen. John D. O'Connell	May 1955	April 1959.
Maj. Gen. George I. Back	May 1961	May 1955.
Commanding general, U.S. Army Electronics Materiel Agency (position abolished May 1964):		
Brig. Gen. Wesley C. Franklin	September 1963	May 1964.
Brig. Gen. Allen T. Stanwix-Hay	August 1962	September 1963.
Col. Dougals O. Toft	June 1962	August 1962.
Brig. Gen. Charles S. Hays	November 1960	May 1962.
Brig. Gen. Elmer L. Littel	June 1957	November 1960.
Brig. Gen. William D. Hamlin	August 1956	June 1957.
Brig. Gen. William L. Bayer	October 1954	July 1956.

"APPENDIX II

"HEADQUARTERS, DEPARTMENT OF THE ARMY,
OFFICE OF THE ASSISTANT SECRETARY,
Washington, D.C., June 26, 1964.

"Mr. R. W. GUTMANN,
"*Associate Director, Defense Accounting and Auditing Division, U.S. General Accounting Office, Washington, D.C.*

"DEAR MR. GUTMANN: The following comments are provided on behalf of the Secretary of Defense in reply to your draft report of April 1964 concerning 'Unnecessary Costs Incurred in the Sole-Source Procurement of Portable Radar Sets' (OSD Case No. 2004).

"The facts presented in the GAO report are agreed with. Classified Army studies and reports on combat surveillance and target acquisition equipment covering the period FY 1958 to FY 1963 reflected continual emphasis upon the urgent need for this type of equipment. There was a concerted effort on the part of the Army to acquire a combat surveillance capability as quickly as possible during that period of time.

"A review of the circumstances as they existed at the time cannot establish that the procuring agency was in haste to obligate these procurement funds before Army obligational authority lapsed. A required delivery schedule for this radar set commencing in April 1961 had been established. This factor coupled with an estimated minimum production lead time for the contractor of 9 months and a minimum administrative lead time of 2 months to negotiate an award, indicated a requirement for an award in May 1960. However, subsequent refinements in the plan, negotiations with the contractor, and approval cycles extended the actual award date to 30 June.

"It is agreed that all objections in connection with a proposed procurement which may be raised by interested parties, such as using organizations and engineering agencies, should be included in the facts presented to approving officials for this consideration.

"Under the Army reorganization, more extensive controls come into play in the event that urgency justifies procurement for troop issue before completion of development and adoption as a standard item. The major commands, particularly those overseas, make recommendations relative to the need for new equipment. The Combat Development Command is responsible for making recommendation to the Department of the Army on the urgency of a requirement of this nature. Further, the provisions of AR 700–20, 25 July 1963 require the satisfaction of 25 criteria before initiating production in a situation of this type.

"The disciplinary action recommended by your office is not believed to be warranted. The decisions with respect to the award in question were made in accordance with what was then, accepted policy. The facts as presented, when considered in the light of the prevailing policy, are considered proper justification for the decisions.

"You recommended that this report be brought to the attention of procuring commands. Present procedures within the Department of the Army provide for distribution of a digest of all GAO reports of this type to procuring commands; a digest of this report will be included in this distribution.

"Sincerely yours,

"A. TYLER PORT,
Acting Assistant Secretary of the Army (Installations and Logistics)."

"PROCUREMENT OF INACCURATE RADIATION MEASURING INSTRUMENTS,
DEPARTMENT OF THE ARMY

"(Report to the Congress of the United States, by the Comptroller General of the United States, December 1963)

"COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C.

"[B–146834]

"*To the Speaker of the House of Representatives and the President pro tempore of the Senate:*

"Enclosed is our report on the procurement of inaccurate radiation measuring instruments by the Department of the Army.

"Our view disclosed that the Army awarded five contracts for a total of 59,776 radiacmeters at a cost of about $2.9 million even though it was aware,

prior to the first production contract and each succeeding contract, that the radiacmeters were not suitable for Army use. In addition, over $663,000 has been expended to modify the radiacmeters produced under the second and third contracts, and additional costs estimated at about $200,000 will be incurred to reimburse the contractors under the fourth and fifth contracts for a temporary work stoppage until the Army investigates technical difficulties and decides whether the radiacmeters will be acceptable to using organizations. The 10,800 radiacmeters produced under the first contract have already been scrapped, and the acceptability of any of the remaining instruments is still questionable.

"These unnecessary costs have been incurred because responsible Army officials (1) were overly optimistic that deficiencies identified in tests of experimental model radiacmeters could be corrected in production despite a recommendation by the using organization not to enter into volume production until deficiencies were corrected, (2) accepted preproduction and initial production models and approved volume production without adequate and timely coordination of test data between the using organization and the engineering and procurement agencies, (3) awarded additional production contracts even though previously identified deficiencies had not been corrected, and (4) generally did not exercise their personal responsibilities to assure that Government funds were expended properly.

"The Deputy Assistant Secretary of the Army, replying on behalf of the Secretary of Defense, concurred with our findings. He stated that the Department of the Army is investigating further the causes for the conditions cited in the report. He stated also that further production of the equipment will not be accomplished until existing technical problems have been solved and the field user's accuracy requirements are met.

"The Deputy Assistant Secretary stated further that, on the basis of results of tests, it was concluded that the design of the radiacmeter was sound but that further investigation of the specific causes for the inaccuracies would be made. However, our review disclosed that responsible engineering personnel at the United States Army Electronics Materiel Support Agency, Fort Monmouth, New Jersey, agreed that the contractors met all specifications but that there was a defect in the design of the radiacmeter. In view of the position taken by the Deputy Assistant Secretary, it is evident that a conflict of opinions exists within the Army as to the soundness of the design of the radiacmeter. We did not attempt to determine whether the deficiencies in the radiacmeters resulted from the contractors' production practices or from the Government's design specifications.

"We are recommending to the Secretary of the Army that (1) those cases where supply management officials, because of the urgency of requirements for equipment, elect to overrule the recommendations of the using forces with respect to performance of the equipment and elect to enter into production before all known deficiencies are corrected be referred to the Assistant Secretary of the Army (Installations and Logistics) for his approval, (2) in the investigation of the specific causes for the deficiencies in the radiacmeters that are the subject of this report, the Department of the Army determine, and advise us, whether the deficiencies resulted from the contractors' production practices or from the Government's design specifications, and (3) consideration be given to taking disciplinary measures against management officials whose actions in this matter were not prudent. We are recommending also that the Secretary of Defense bring this report to the attention of management officials within the military departments and emphasize their responsibilities for determining the adequate performance of equipment before recommending or approving items for volume production.

"Copies of this report are being sent to the President of the United States, the Secretary of Defense, and the Secretary of the Army.

"JOSEPH CAMPBELL,
Comptroller General of the United States."

"INTRODUCTION

"The General Accounting Office has made a review of procurement of the radiacmeters IM–108/PD by the Department of the Army. This review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

"The scope of our review is shown on page 16 of this report.

"BACKGROUND

"The Department of Defense has issued engineering policies and procedures to assure that military weapons, equipment, and systems are suitable for design, production, and use by the military services. Each military service is required by the Department of Defense to establish programs to implement these policies and procedures. The Department of the Army has assigned this responsibility to each major subcommand of the Army Materiel Command.

"Under the reorganization of the Department of the Army, the United States Army Electronics Command, a major subcommand, was established in August 1962 and assumed most of the logistics functions previously performed by the Office of the Chief Signal Officer. This Command has the responsibility for the research, design, development, testing, and supply management of electronic equipment. Its mission is performed by three major agencies as follows:

"1. The United States Army Electronics Research and Development Agency, Fort Monmouth, New Jersey, conducts continuing research for the development and design of new techniques and equipment relative to communication, radar, and electronic devices.

"2. The United States Army Electronics Materiel Support Agency, Fort Monmouth, New Jersey, provides engineering specifications for procurement of electronic equipment, performs or monitors preproduction testing and qualification, and approves equipment.

"3. The United States Army Electronics Materiel Agency, Philadelphia, Pennsylvania, is the national inventory control point and, as such, computes requirements, controls assets on hand, and awards and administers contracts for procurement.

"In order to determine whether newly developed equipment is acceptable for Army use, the Department of Defense procedures require the cognizant military department to test such equipment. These tests are generally referred to as 'service tests.' The purpose of the tests is to determine the physical and operational characteristics, organizational maintenance requirements, and whether the equipment will be accurate, durable, and reliable when subjected to use by the troops in the field. In addition to these service tests, and prior to commencing production, the contractor is generally required to test a preproduction sample to determine whether the performance measurements and capability of the equipment meet the environmental and other field conditions. The contractor is required to furnish a tested preproduction sample to the Army for evaluation and approval. Such evaluation includes an examination and testing by a Government field engineer, or by the contractor under the supervision of the field engineer, to determine whether the tested preproduction sample was manufactured in accordance with contract specifications.

"The radiacmeter IM–108/PD is a tactical survey instrument uesd for detecting and measuring gamma radiation resulting from nuclear explosions and is considered vital for the safety of troops in the field. It is important that the individual using the radiacmeter obtain readings which are accurate and reliable to avoid being exposed to excessive radiation dosages. The service tests of the experimental models was conducted for the Electronics Command by the United States Continental Army Command under actual field conditions. The evaluation of the preproduction models of the radiacmeter was performed at the contractor's plant by personnel of the Field Engineering Division of the United States Army Electronics Materiel Support Agency.

"During the period from March 1958 to January 1962, five formally advertised production contracts were awarded by the United States Army Electronics Materiel Agency. The award dates, quantities, and costs of the production contracts follow:

Date of award	Contractor	Contract	
		Number of units	Cost
Mar. 29, 1958	Landsverk Electrometer Co., Glendale, Calif	10,800	$605,858
June 29, 1959	Jordan Electronics Division of Victoreen Instrument Co., Alhambra, Calif	12,817	[1] 638,098
Oct. 9, 1959	---do	12,017	[1] 615,150
June 7, 1961	Landers, Frary & Clark, New Britain, Conn	11,417	[2] 543,169
Jan. 10, 1962	Victory Electronics & Research Corp., Chicago Ill	12,725	[2] 526,163
Total		59,776	2,928,438

[1] In addition $663,000 was expended by Army depots to modify radiacmeters produced under these 2 contracts.
[2] In addition, $200,000 will be incurred under these contracts because the Government will have to reimburse the contractors for a temporary work stoppage.

"A list of the principal Department of Defense officials responsible for administration of activities discussed in this report is appended.

"FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

"Unnecessary costs incurred in the procurement of inaccurate radiacmeters

"The Army awarded five contracts for a total of 59,776 radiacmeter at a cost of about $2.9 million even though it was aware, prior to the first production contract and each succeeding contract, that the radiacmeters were not suitable for Army use. In addition, over $663,000 has been expended to modify the radiacmeters produced under the second and third contracts, and additional costs estimated at about $200,000 will be incurred to reimburse the contractors under the fourth and fifth contracts for a temporary work stoppage until the Army investigates technical difficulties and decides whether the radiacmeters will be acceptable to using organizations. The 10,800 radiacmeters produced under the first contract have already been scrapped, and the acceptability of any of the remaining instruments is still questionable.

"These unnecessary costs have been incurred because responsible Army officials (1) were overly optimistic that deficiencies identified in tests of experimental model radiacmeters could be corrected in production despite a recommendation by the using organization not to enter into volume production until deficiencies were corrected, (2) accepted preproduction and initial production models and approved volume production without adequate and timely coordination of test data between the using organization and the engineering and procurement agencies, (3) awarded additional production contracts even though previously identified deficiencies had not been corrected, and (4) generally did not exercise their personal responsibilities to assure that Government funds were expended properly.

"Disregard of user's recommendations

"In 1954 a contract was awarded to El-Tronics Incorporated for the development of two experimental model radiacmeters, 50 of each, at a total cost of $43,800. During 1956 and 1957 the United States Continental Army Command (USCONARC) performed a service test on some of the experimental model radiacmeters to determine their suitability for Army use. In May 1957, USCONARC reported to the United States Army Electronics Materiel Support Agency that several deficiencies were found in both models tested which made the radiacmeters unsuitable for use. The accuracy tests, included in the service tests, were performed by USCONARC after the radiacmeters were subjected to actual field use for several months. A serious deficiency noted during these tests was that the readings of the radiacmeters were not within the plus or minus 10 percent accuracy required by the technical military requirements. Inaccurate readings up to minus 78 percent were recorded during this test.

"USCONARC recommended to the Chief of Research and Development, Department of the Army, that a limited procurement of 1,100 radiacmeters be made to satisfy an immediate operational requirement, provided that the deficiencies noted in their tests were corrected in production. They recommended also that some production models be sent to them for testing. The records show that the Chief Signal Officer reported that all deficiencies initially identified in the experimental models could be corrected in production and therefore USCONARC's recommendation of limited procurement rather than volume production was disapproved by the Deputy Chief of Staff for Operations, Department of the Army.

"The first production contract was awarded in March 1958 for 7,200 radiacmeters IM–108/UD. The quantity was subsequently increased to 10,800. This contract proivded that preproduction models be submitted to the United States Army Electronics Materiel Support Agency (USAEMSA) for evaluation and testing to determine conformance with applicable specifications. In the testing of the preproduction models during September 1958, USAEMSA identified several deficiencies in performance and notified the contractor that some of the radiacmeters failed to meet shock, immersion, sensitivity, and calibration specification requirements. However, USAEMSA permitted the contractor to commence production provided that the deficiencies were investigated and corrected, subject to further tests during the initial production run.

"In November 1958, USAEMSA approved the radiacmeters on the basis of tests from the initial production run. As a result of these tests USAEMSA engineers recommended, however, that the calibration accuracy measurement be revised to plus or minus 15 percent rather than to plus or minus 10 percent required by the military specification, but no changes were made to the specifications at this time.

"Further, USAEMSA accepted the preproduction and the initial production run models without submitting the test results to the using organization or subjecting the units to actual field-use conditions, although USCONARC had previously advised USAEMSA that actual field use increased the inaccuracies of the radiacmeters.

"Subsequent contracts awarded before original deficiencies corrected

"In February 1959, or at least 3 months after production had started, USCONARC obtained some radiacmeters produced under the first contract for further testing. One year later, in February 1960, USCONARC reported that its tests showed that they were still unsuitable for Army use. Inaccurate readings as much as plus 67 percent were recorded during these tests. These were the same type of deficiencies as those reported in the May 1957 tests of the experimental models. In its report of February 1960, in which it stated that no priority had been assigned to this project, USCONARC recommended that production of the radiacmeters be halted until the deficiencies could be corrected. However, prior to receiving this report, the Army accepted all the 10,800 radiacmeters under the first contract and, in the meantime, awarded two additional production contracts for 24,834 radiacmeters IM–108/PD and accepted 7,155 radiacmeters under the second contract.

"Notwithstanding the length of time it took USCONARC to test the radiacmeters, USAEMSA should have been aware that the radiacmeters being produced were not acceptable for Army use. The records show that, in August 1959, an electronic engineer for USAEMSA visited the contractor's plant to investigate deficiencies noted in unsatisfactory equipment reports received from field personnel. During his visit the engineer simulated a limited field test by attaching several radiacmeters to his station wagon. During this test, among other deficiencies, the instruments deteriorated in calibration accuracy and did not come within the plus or minus 10 percent accuracy required in the military specifications. The calibration inaccuracy was attributable to the type of electrometer tube being used in the instrument. The test disclosed that when the tube was jarred its filament was adversely affected. The electronic engineer stated that this defect was a serious problem to which there seemed to be no immediate solution. However, no action was taken at this time to halt production until the defect had been corrected.

"About May 15, 1960, the United States Army Electronics Materiel Support Agency began an investigation to determine the cause of the radiacmeter deficiencies noted in the USCONARC test report. They found that the batteries used in the radiacmeters had an unusual drop in the voltage level after limited usage which caused the inaccurate readings. At this time the contractor was advised to withhold production until further notice, and USAEMSA determined that a modification was required to provide greater stability of the voltage level of the batteries. This modification was made, and on May 25, 1960, five modified radiacmeters were delivered to USCONARC for retest.

"USCONARC retested the modified radiacmeters simultaneously with some unmodified radiacmeters produced under the second contract. All those tested were again found to be unsuitable for Army use, due principally to inaccurate readings. In July 1960, USCONARC concluded that the modified radiacmeters may be suitable for use if the discrepancies were corrected. USCONARC again recommended to the United States Army Electronics Materiel Support Agency (USAEMSA) that, after deficiencies in the radiacmeters were corrected, they be submitted for retesting.

"In August 1960, because the idle production lien costs were increasing under the second production contract, USCONARC agreed to the resumption of production, based on the contractor's description of how the deficiencies could be corrected in production. Records at the Electronics Materiel Agency show that, after production was resumed, the remaining 5,662 units under the second production contract and 1,300 units under the third production contract were ac-

cepted by the Electronics Command before any modified radiacmeters were submitted to USCONARC for retesting in March 1961. Before the USCONARC test results were received by the Electronics Command in July 1961, an additional 10,717 radiacmeters, or the remaining portion of the third production contract, were accepted, and in June 1961 a fourth production contract for 11,417 radiacmeters was awarded.

"Radiacmeters scrapped because of potential casualties and fatalities to users

"In December 1961, personnel of the Electronics Command determined that all 35,634 radiacmeters procured under the first three production contracts had major deficiencies. Although a more stable radiacmeter was produced as a result of the May 1960 modification, tests showed that the radiacmeters were still subject to large errors in reading if one or more battery cells failed. The users would not be aware of this error during actual field use and their remaining in an area with excessive radiation could result in casualties and fatalities. Therefore, instructions were issued in May 1962 by the Commanding General of the United States Army Electronics Materiel Agency (USAEMA) to all commands that the initial production of 10,800 radiacmeters costing $606,000 should be disposed of.

"Acceptability of radiacmeters still questionable even after modifications

"The Electronics Command determined that it would be economically practicable to rework the radiacmeters produced under the second and third contracts, which were also subject to similar deficiencies in calibration accuracy. The costs incurred at Lexington and Sacramento Army Depots to modify these radiacmeters, which have not yet been field tested by the Army, have amounted to $663,611.

"In January 1962, a fifth production contract was awarded for an additional 8,400 radiacmeters. The quantity was subsequently increased to 12,725. USAEMSA determined that it was also necessary to change the specifications applicable to the fourth and fifth contracts in order to produce a more satisfactory radiacmeter. This change in specifications required certain modifications which were approved by the Electronics Command. All radiacmeters were then required to meet the plus or minus 10 percent calibration accuracy as provided by the original technical military requirements and would be redesignated radiacmeter IM–174/PD.

"Results of tests performed on initial production models from the fourth and fifth contracts by USAEMSA engineers and the Lexington Army Depot in May 1963 showed, however, that various engineering deficiencies in the modified IM–174/PD radiacmeters posed a question as to whether the radiacmeters would be acceptable in meeting the requirements of the using organizations. One of the limitations identified by these tests was that, after being used, the equipment could not be used again for a period of 72 hours. The reason for this limitation is due to the type of tube contained in the modified radiacmeters. This was the same deficient tube identified by the USAEMSA engineer in August 1959.

"On July 25, 1963, the Commanding General, United States Army Electronics Command, advised USAEMA that no further contracts for the production of the IM–174/PD radiacmeters were to be made either on the basis of the add-on quantities or new contracts. Subsequently on August 22, 1963, the Commanding General, United States Army Electronics Command requested USAEMA to enter into supplemental agreements with the contractors under the fourth and fifth contracts to provide for temporary work stoppages of 120 days. This temporary delay in work under these contracts will result in additional costs to the Government of about $200,000. During this period a technical investigation of the deficiencies in the IM/174–PD radiacmeters will be performed. Extensive tests of a total of 128 radiacmeters, comprising 64 produced under the fourth contract and 64 from the fifth contract, will be made by the Lexington Army Depot. Subsequent to a review of the results of these tests, the Army will make a decision whether to resume production on this item or terminate the fourth and fifth contracts.

"Agency comments

"On April 11, 1963, we brought our findings to the attention of the Department of the Army and proposed that it institute effective controls and place responsibility within the Army Materiel Command to assure that either (1)

volume production of new equipment is not undertaken when the results of tests of experimental models disclose that the item is unsuitable for field use or (2) when equipment with known deficiencies is authorized for production with the understanding that the deficiencies will be corrected, appropriate testing techniques are applied in a timely manner to determine that the items being procured will meet the requirements of the user in order to minimize the number of defective items produced.

"By letter dated June 18, 1963, the Deputy Assistant Secretary of the Army (Installations and Logistics) stated that the Department of the Army concurred with our findings. He stated that the Army had a standing policy that volume production of new equipment is not undertaken if the results of tests of experimental models disclose that the item is unsuitable for use. He advised also that normal procedures require that appropriate and timely testing techniques be applied to assure that new items meet the user's requirements. He stated that the Department of the Army is investigating further the causes for the conditions cited in this report and that further production of the equipment will not be accomplished until existing technical problems have been solved and the field user's accuracy requirements are met.

"The Deputy Assistant Secretary stated further that, on the basis of results of tests, it was concluded that the design of the IM–108/PD radiacmeter was sound but that further investigation of the specific causes for the inaccuracies would be made. However our review disclosed that responsible engineering personnel at the USAEMSA, Fort Monmouth, New Jersey, agreed that the contractors met all specifications but that there was a defect in the design of the radiacmeter. In view of the position taken by the Deputy Assistant Secretary, it is evident that a conflict of opinions exists within the Army as to the soundness of the design of the IM–108/PD, later designated the IM–174/PD radiacmeter. We did not attempt to determine whether the deficiencies in the radiacmeter resulted from the contractors' production practices or from the Government's design specifications.

"Conclusions

"Volume production of new equipment, generally, should not be undertaken when the results of tests performed by the user on experimental models disclose deficiencies that render the item unsuitable for field use. Further, when equipment with known deficiencies is authorized for volume production, with the understanding that these deficiencies will be corrected in the production model, it is of the utmost importance to determine, by appropriate testing techniques at the earliest possible time, that the deficiencies have been corrected and that the item is suitable for field use. These actions require timely and effective coordination between the responsible testing and procurement organizations.

"Notwithstanding the Army's policy that volume production of new equipment is not undertaken if the results of tests in experimental models disclose that the item is unsuitable for use, our review disclosed that deficiencies had been identified in the radiacmeters IM–108/PD experimental models that rendered the item unsuitable for use, but a decision was made to enter into volume production and a contract was awarded. Furthermore, four additional contracts for the production of these radiacmeters were awarded even though previously identified deficiencies had not been corrected. As a result, 10,800 radiacmeters that were procured at a cost of $606,000 are now being eliminated from the Army's supply system, 24,834 other radiacmeters costing over $1.2 million have been modified at a cost of over $663,000, and additional costs estimated at about $200,000 will be incurred because of a temporary work stoppage under the fourth and fifth contracts. As of September 18, 1963, the acceptability of any of the radiacmeters for Army use is still questionable pending the results of tests of the modified instruments.

"Recommendations

"We recommend to the Secretary of the Army that (1) those cases where supply management officials, because of the urgency of requirements for equipment, elect to overrule the recommendations of the using forces with respect to performance of the equipment and elect to enter into production before all known deficiencies are corrected be referred to the Assistant Secretary of the Army (Installations and Logistics) for his approval, (2) in the investigation of the specific causes for the deficiencies in the radiacmeters that are the subject of this report, the Department of the Army determine, and advise us, whether

the deficiencies resulted from the contractors' production practices or from the Government's design specifications, and (3) consideration be given to taking disciplinary measures against management officials whose actions in this matter were not prudent. We recommend also that the Secretary of Defense bring this report to the attention of management officials within the military departments and emphasize their responsibilities for determining the adequate performance of equipment before recommending or approving items for volume production.

"SCOPE OF REVIEW

"Our review included an examination of the records and reports relative to the testing, procurement, use, modification, and disposition of this equipment within the Department of the Army for the period from April 1954 to September 1963. Our review was made at the United States Army Electronics Materiel Agency, Philadelphia, Pennsylvania, and the United States Army Electronics Materiel Support Agency, Fort Monmouth, New Jersey.

"PRINCIPAL MANAGEMENT OFFICIALS OF THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE ARMY RESPONSIBLE FOR ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure	
	From—	To—
DEPARTMENT OF DEFENSE		
Secretary of Defense:		
Robert S. McNamara	January 1961	Present.
Thomas S. Gates, Jr	December 1959	January 1961.
Neil H. McElroy	October 1957	December 1959.
Charles E. Wilson	January 1953	October 1957.
Assistant Secretary of Defense (Installations and Logistics):		
Thomas D. Morris	January 1961	Present.
Perkins McGuire	January 1957	January 1961.
DEPARTMENT OF THE ARMY		
Secretary of the Army:		
Cyrus R. Vance	July 1962	Present.
Elvis J. Stahr, Jr	January 1961	June 1962.
Wilber M. Brucker	July 1955	January 1961.
Robert T. Stevens	February 1953	July 1955.
Assistant Secretary of the Army (Installations and Logistics):		
Paul R. Ignatius	May 1961	Present.
Unfilled	January 1961	May 1961.
Courtney Johnson	April 1959	January 1961.
Frank Higgins	August 1954	April 1959.
Chief of Staff, U.S. Army:		
Gen. Earle G. Wheeler	October 1962	Present.
Gen. George H. Decker	October 1960	September 1962.
Gen. Lyman L. Lemnitzer	July 1959	October 1960.
Gen. Maxwell D. Taylor	June 1955	June 1959.
Gen. Matthew B. Ridgway	July 1953	June 1955.
Deputy Chief of Staff (Logistics):		
Lt. Gen. R. W. Colglazier, Jr	July 1959	Present.
Lt. Gen. Carter B. Magruder	May 1955	June 1959.
Lt. Gen. Williston B. Palmer	October 1952	April 1955.
Commanding general, U.S. Army Materiel Command: Lt. Gen. Frank S. Besson, Jr.	July 1962	Present.
Commanding general U.S. Army Electronics Command:		
Maj. Gen. Frank W. Moorman	August 1963	Do.
Maj. Gen. Stuart S. Hoff	August 1962	August 1963.
Chief signal officer:		
Maj. Gen. E. F. Cook	---do	Present.
Maj. Gen. Ralph T. Nelson	May 1959	August 1962.
Maj. Gen. John D. O'Connell	May 1955	April 1959.
Maj. Gen. George I. Back	May 1951	May 1955.
Commanding general, U.S. Army Electronics Materiel Agency (formerly U.S. Army Signal Supply Agency):		
Brig. Gen. Wesley C. Franklin	September 1963	Present.
Brig. Gen. Allen T. Stanwix-Hay	August 1962	September 1963.
Col. Douglas O. Toft	June 1962	August 1962.
Brig. Gen. Charles S. Hays	November 1960	May 1962.
Brig. Gen. Elmer L. Littel	June 1957	November 1960.
Brig. Gen. William D. Hamlin	August 1956	June 1957.
Brig. Gen. William L. Bayer	October 1954	July 1956.
Brig. Gen. James S. Willis	May 1953	September 1954."

Mr. DOMINICK. Mr. President, information which reached me yesterday is very disturbing. I am informed that the radio set AN/PRC–77 is, today, being manufactured by a company other than RCA, in a foreign country, by a company which is not American owned, and is being manufactured in accordance with the very drawings that Mr. Brooks has alleged to me do not exist. A representative of the foreign company has acknowledged publicly that the foreign company is, in fact, manufacturing this walkie-talkie radio set. In view of the foregoing, I believe that the public and the Congress is entitled to the real truth in this matter. I have, therefore, requested the Federal Bureau of Investigation to come into this case and learn how these manufacturing drawings came into foreign hands while the Army officials themselves claim that a data package on this radio equipment does not exist.

Mr. President, in addition, I intend to insert for the Record a copy of the letter which I have directed to the Comptroller General of the United States concerning this matter. Among other things, I have requested that an audit be conducted of the earlier $20 million RCA contract for radio sets the Army procured at $2,156.91 each. Two million two hundred thousand dollars had already been paid RCA for development of this radio, after which RCA subsequently quoted a price of $843.37 per unit for the identical equipment in open competitive bidding. The purpose of this audit, of course, is to identify and recapture any excess profits which had to be generated in such an enormous contract for such a little radio.

Mr. President, I am more fully convinced than ever that in view of the questionable transactions which are coming to light an in-depth investigation into our military procurement practices should be initiated by Congress without further delay.

Mr. President, I ask unanimous consent that a very interesting article by Mr. Willard Edwards which appeared in the Chicago Tribune on September 23, 1967, be printed in the Record.

There being no objection, the article was ordered to be printed in the Record, as follows:

"CAPITOL VIEWS

"(By Willard Edwards)

"WASHINGTON, September 22.—The panic button was pressed in the Pentagon this week when Sen. Peter H. Dominick [R., Colo.] arose on the Senate floor and asked a quiet question. Forces were thereby initiated that could mushroom into a scandal of government-shaking proportions.

"'Was it not time,' Dominick inquired, 'to determine whether outright dishonesty, and not just bureaucratic fumbling and inefficiency, was responsible for the accumulating evidence of monumental waste in military procurement practices? Specifically, was someone in the defense department getting rich thru the allotment of huge contracts to large corporations despite lower bids by competitors? With more than 18 billion dollars allotted this year for military purchases, the temptation was great.'

"It was a question that has been begging for utterance in recent months. Dominick, a member of the Senate armed services committee, backed it up by citing two recent cases he had uncovered which suggested corruption instead of the inefficiency often accepted as normal to war time spending. He asked the government operations committee to determine whether the facts warranted a full-scale investigation and public hearings.

"Scores of members have received complaints of cases similarly indicating fraud. Small business firms thruout the nation have reported numerous instances in which they were frozen out of defense contracts by bigger corporations with influential contacts in Washington. In all cases, the defense department paid more for supplies than was necessary.

"DOMINICK SECRETLY APPLAUDED FOR CANDOR

"Dominick brought into the open a situation which many had been loath to discuss and they secretly applauded his candor. Secretary of Defense Robert S. McNamara was alerted to the danger. President Johnson was advised that a political volcano was rumbling and might erupt in an election year. An emergency meeting of defense department officials was called to debate the threat.

"McNamara has weathered many storms by putting up a barrage of angry denials and counter-charges. But he will proceed cautiously in this crisis, having

been burned badly in his first encounter with congressional criticism of military procurement. He was forced to beat a quick retreat after his first savage and sarcastic reaction to revelations by Rep. Otis G. Pike [D. N.Y.] of inexcusable defense buying.

"Pike made public a series of military purchases which defied reasonable explanation. He told of small items of hardware, such as washers and nuts and bolts, for which the military paid $1.55 each when they were available in any hardware store for 6 cents apiece.

"The amounts were small but, as Pike remarked, the principle was not. McNamara, accustomed to dealing in billions of dollars, ridiculed Pike as a nitpicker. The New York congressman struck back by displaying a generator knob, available to any citizen for $1.62, for which the army had paid $312.50. Next day, a red-faced military canceled the contract.

"DOMINICK'S CASES DEAL WITH BIG AMOUNTS

"Pike referred to the purchases as 'stupid' and 'wasteful,' not ascribing more sinister motives. The cases revealed by Dominick, however, not only dealt in big amounts but could not be excused as due to ignorance or inefficiency.

" 'A small firm in Aurora, Colo.,' Dominick said, 'developed a lightweight flame thrower, submitted the low bid in it, and then found itself losing the contract to a bigger company which had bid more than double the amount. In the second case, a small business concern in Philadelphia lost out on a 10 million dollar contract for a portable radio altho its bid was $884,856 lower than the successful bidder, the giant Radio Corporation of America.'

" 'Both cases were marked by such glaring inequities,' Dominick said, that he felt impelled to ask, 'whether any specific benefits have been derived by anyone in the army or elsewhere as a consequence of this peculiar procedure.'

"In other words, did someone get a rakeoff? There are more than 100 similar cases of exorbitant costs and indefensible buying methods awaiting the congressional probe. On Capitol hill, the odds are considered more than even that the investigation could develop into an expose of deals dwarfing the '5 percent' operations of influence peddlers in the Truman era."

Mr. DOMINICK. I ask unanimous consent that the letter from the Army dated September 21, 1967, to me and my letter to the Comptroller General dated September 28, 1967, be included at this point in the Record.

There being no objection, the letters were ordered to be printed in the Record, as follows:

"DEPARTMENT OF THE ARMY,
OFFICE OF THE ASSISTANT SECRETARY,
Washington, D.C., September 21, 1967.

"Hon. PETER H. DOMINICK,
U.S. Senate,

"DEAR SENATOR DOMINICK: I have read your remarks of 19 September relating to two Army procurement transactions and feel it might be helpful to clarify a few of the points you raised. As you may know the Comptroller General has performed complete and impartial reviews of these procurements.

"The Research and Development contract for a multi-shot portable flame weapon was protested by Custom Packaging Company to the General Accounting Office. The Assistant Comptroller General, in a report of 29 June 1967, copy attached, states, 'A study of the record on this procurement as supplemented by presentations on behalf of Custom leads to the conclusion that the award as made represented a proper discharge of procurement responsibility and discretion as to which we find no legal basis to question.' Therefore, the protest was denied.

"I can find nothing to support the inference that any technical innovations by Custom Packaging were revealed to any other contractor. None of the requirements contained in the Request for Proposals disclose any design features submitted by Custom Packaging. The requirements listed were in sufficient detail to permit potential contractors to offer proposed designs, and were developed independently of Custom Packaging.

"This procurement followed the normal Research and Development procedure to obtain formal proposals from interested and qualified Companies setting forth their technical approach to provide the required weapon. In such a case we are not seeking the lowest price proposal, but rather the technical approach which would be most likely to provide the best weapon to meet the requirements of our

Armed Forces. All proposed contractors were informed of this intention and of the fact that it was anticipated to award a cost reimbursement-type contract. The proposals submitted by Custom and several others, including Nortronics, were carefully evaluated by the Government, and Nortronics was selected since it offered the technical approach most likely to result in the best weapon. As noted by the General Accounting Office, 'The Proposal of Custom was rated lowest and the proposal of Nortronics . . . received the highest rating.' The General Accounting Office further noted, 'Although Custom demonstrated its portable flame weapon system for Edgewood Arsenal, the record shows that such demonstration was not successful and that, in the considered judgment of technical personnel, such weapon did not meet the needs of the Government. We find nothing in the record which would lead to the conclusion that Custom had a valid basis for assuming that the Government would award it a contract for such weapon.'

"With regard to the procurement of PRC–25/77 Radios, the two-year contract awarded to RCA in April 1967 which you cited was also the subject of a protest to the General Accounting Office and in his letter of 1 June 1967, copy attached, the Assistant Comptroller General concludes, 'Therefore, no legal basis exists to object to the subject procurements.' I further note that Decitron has protested the 16 August 1967 award of the second increment of the April 1967 contract to RCA to the General Accounting Office. Acting on a request from that office, the Army is currently preparing an administrative report in response to this protest and we will be guided by the Comptroller General findings.

"The successor radio to the PRC–25, the PRC–77, which was developed under a product improvement program by RCA provides substantially better communication capabilities, a means of secure voice transmission, increased range, lighter weight and less battery drain. Because of these advantages the improved radio was urgently needed in Southeast Asia and RCA was awarded a contract in June 1966 to produce initial production quantities while further design changes and improvements were being effected. In order to provide for competition in future procurements, this contract included a requirement for the delivery of a procurement data package. Due to design changes resulting from concurrent field testing, it was determined that competitive procurement of this radio could not be achieved prior to 1 January 1968. Therefore, the follow-on two-year contract was awarded to RCA to meet the priority requirements for Southeast Asia.

"With regard to the unsolicited proposal by Decitron a competitive data package was not available in April 1967. As a matter of fact, due to design changes resulting from concurrent field tests, the final procurement package will not be available until early December 1967. Even if the data package had been delivered by 31 March 1967, it could not have been available for competitive procurement for some months due to the necessity of Government review and verification. RCA was the only producer capable of manufacturing the radio to meet the required delivery schedule. It is presently anticipated that competitive procurement of the PRC–77 Radio will be accomplished in early 1968.

"I trust this information will be of value to you in your further evaluation of these procurement.

"Sincerely,

"ROBERT A. BROOKS,
Assistant Secretary of the Army (Installations and Logistics)."

"U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C., September 28, 1967.

"Hon. ELMER B. STAATS,
Comptroller General of the United States,
Washington, D.C.

"DEAR MR. COMPTROLLER GENERAL: On September 19, 1967, I delivered a speech in the Senate which concerned two Army procurements, one of which involved the AN/PRC–25 and the AN/PRC–77 Radio Set which I understand is now pending under a protest No. B–161031. For your ready reference, a copy of my remarks is attached. In addition, I have attached a copy of a letter dated 21 September 1967, which I received from the Assistant Secretary of the Army Installations and Logistics, dealing with this very matter.

"From the Army letter of 21 September, it appears that the Signal Corps is running a development program parallel to a production program for the same equipment. I am aware of the GAO Reports on the IN–108 Radiacmeter and the AN/PPS–4 Radar procurement wherein the Army previously did exactly the same thing in continuing development with parallel production which resulted in the waste of millions of tax dollars. (Comp. Gen. B–146834 and B–146906.)

"It is for these very reasons that I hereby request the GAO to identify for me by name, rank and grade, title of all civilian and military personnel who are involved in the AN/PRC–25 and AN/PRC–77 development and production including engineering, logistic and contracting officials with particular emphasis on those names of Army employees common to AN/PPS–4 and IM–108 Radiacmeter procurements.

"In addition, I request that the GAO audit RCA Contract 89511 in an effort to recapture possible excess profits which must have been realized under a $20.5 Million award for radio sets at a unit price of $2,156.91 (after $2.2 Million had already been paid RCA for development) in a non-competitive procurement for that equipment which RCA subsequently quoted at $843.37 per unit the very instant the force of competition was introduced into the procurement for the same radio.

"And finally, it is requested that I be supplied a summary of DD–250 Documents which cover shipments made by RCA under contracts 01292 initiated March 21, 1965, and 10410, showing line for line, item for item, shipping dates.

"When the audit is complete under Contract 89511, please arrange to supply me with a completely priced bill of materials for the radio set supplied by RCA under that contract, showing item for item prices and sources, which I want to use for comparison with other information from other manufacturers covering this same equipment.

"Very truly yours,

"PETER H. DOMINICK,
"U.S. Senator."

MILITARY PROCUREMENT PRACTICES [1]

Mr. DOMINICK. Mr. President, on September 19, 1967, I delivered an initial floor speech concerning questionable military procurement policies and procedures. It concerned two Army contracts. Both were awarded to big business firms although substantially lower bids were on file from small business firms. Specifically, one award was given to Northrop Nortronics—a division of Northrop Aviation—the high bidder, over Customs Packaging Co., the low bidder. The other award was given to Radio Corp. of America, the high bidder over Decitron Electronics Corp., the low bidder.

The first contract involved a shoulder-borne portable flame weapon. The other contract involved a portable walkie-talkie radio set. In both transactions the procedures used to justify the excessive cost to the taxpayers seemed to me to be so highly questionable that I urged that Congress proceed with a thorough investigation of our military procurement policies.

The case involving my constituent, Custom Packaging Co., Aurora, Colo., clearly pointed out a serious shortcoming in our ability to properly review transactions involving millions upon millions of the taxpayers' dollars. Congress has depended upon the Comptroller General of the United States to accomplish the technical aspects of this review. The Comptroller General has acknowledged that this is not being done.

In response to the protest filed by my constituent, the Comptroller General responded in part as follows:

"Your claim of improper use by the procuring activity of proprietary information contained in Custom's unsolicited proposal is categorically denied by responsible and knowledgeable technical personnel of the Department of the Army. And while your rebuttal and other correspondence dealing with this allegation strongly disputes the conclusion reached by the Army Technical Personnel, we have no alternative but to accept the facts as reported by the Army. In factual disputes, such as here, which are technically beyond the competence of our office because of the scientific or engineering concepts involved, we must accord a significant degree of finality to the Administrative position."

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[1] Reprinted from Congressional Record, 90th Cong., 1st sess., Oct. 4, 1967.

In other words, Mr. President, the Comptroller General is saying that no review was made of the charge beyond asking the Army whether it disagreed with the assertion made by my constituent. Of course, the Army responded in the manner it did in order to protect those responsible for this questionable transaction in the first place.

The Small Business Administration also questioned the Comptroller General about the award of the contract to Nortronics at more than twice the amount bid by Custom Packaging Co. In his response to the Small Business Administration, the Comptroller General hedged the question posed by the Small Business Administrator that, under the Small Business Act, provision is made that where a small business concern is certified by SBA to be a competent Government contractor with respect to capacity and credit, the procuring officers of the Government must accept such certification as conclusive. After having admitted in his letter to my constituent that in actual fact no review was made, the Comptroller General goes on to say:

"On the basis of the record before us, we are of the view that Custom's proposal was technically non-responsive to the Army's requirements as detailed in the statement of work accompanying the request for proposals. In reaching this view, we are aware that some of Custom's deficiency disclosed in the technical evaluation related to its capacity and credit."

And then he revealed the following:

"However, Custom received only a rating of 2 on its technical approach to the government's requirements out of a possible weighted factor of 40."

This "weighted average" method of eliminating the lowest bidder struck me as being familiar. Upon checking, I find that this very same gambit was used to eliminate the low bidders on the development of a portable radio communications set which has the official nomenclature AN/PRC–62( ). The Army Electronics Command awarded a contract to the Radio Corp. of America—and here we go again with RCA. This is the third time I have brought them up—for $1,073,150 in spite of the fact that the Army had received substantially lower bids from such companies as Bendix Radio, General Motors Delco Radio Division, Raytheon, General Dynamics, Magnavox, Sylvania, and others. The lowest bid received for this AN/PRC–62 radio came from the International Telephone & Telegraph Co. We all know these are the giants of the electronics industry.

It is a well-known fact that the United States—and we can say this again after today's debate—is not a profitmaking organization. But, when we have procurement officials who can throw out low bids from firms such as I.T. & T., who are enormously well qualified to develop any kind of radio we could think of, then I think it is high time we took another look at the regulation the Army cited as justification for its actions. The Army justified these actions under section IV, part 2 of the Armed Services Procurement Regulations. Just how does this work?

The Comptroller General's report No. B–160809 explains how the Army did this in the case of my constituent, Custom Packaging Co. First, they completely ignored the price of the item to be procured. Then the Army proceeded to assign an arbitrary set of "values" to the various bids. The Army said that technical approach to the problem was to count 40 percent; technical personnel 20 percent; background experience only 15 percent; facilities 15 percent; and schedule—whatever that is—was to count 10 percent.

Having established this approach, the Army then contrived a new set of numbers having nothing whatever to do with price, and lo and behold, Nortronics got the highest rating, while Custom Packaging Co., which conceived the flame weapon, developed it at its own expense—and demonstrated it to the Army—got a rating of two points out of a possible weighted factor of 40. This, I might say, is despite the fact that SBA had certified the company's capacity and credit ahead of time.

Mr. President, the case of the AN/PRC–62 radio procurement was well documented by GAO report B–152884. There again the weighted average was used. The report shows that in awarding the contract to the Radio Corp. of America for an amount in excess of $1 million, the Army Electronics Command ignored the following lower bids:

I.T. & T., $421,140.
Bendix Radio, $434,627.
Advanced Communications, $470,445.
Electronics Communications, $489,155.

General Motors Delco Radio Division, $556,152.

The report contains the following incredible admission:

"We could not independently evaluate the technical aspects of the proposals, nor could we determine from an engineering standpoint whether the Agency's technical evaluations were reasonable. Furthermore, many of the Agency's technical evaluations were not adequately documented. However, our review disclosed that the Agency's engineers responsible for evaluating the proposals were in general agreement that RCA's proposal was the best."

Of course, they would.

Mr. President, I think we ought to think about this for a second. Here is the Office of the Comptroller General which is designed to be at least Congress agency to determine whether the executive departments of the Government are operating in the best interests of the taxpayers and in the best interests of the country. Yet, they have said now on three consecutive occasions that they were not qualified to analyze the scientific and other material which forms the basis of the Army's decision. Consequently, the only thing they can do is accept the Army's decision, even when in the Comptroller General's report it says it is not documented, and the Army's opinion has been based on the claimed lack of technical competency of companies like International Telephone & Telegraph.

Can we conceive of any more ridiculous position than having the Army come up and try to tell the Comptroller General or anybody else that ITT or Bendix or Advanced Communications or General Motors cannot build a portable radio? It is the most ridiculous thing I have ever heard of.

Here we have another $500,000—that is not a great amount in the present budget—thrown down the drain solely because the Army wants to deal with RCA to the exclusion of everybody else. I say it is amazing indeed.

I am informed today that the Army is right this minute scheduling $8.5 million in this fiscal year into sole-source noncompetitive production for the AN/PRC–62( ) radio set that I have just finished talking about, where we have bids from five perfectly competent companies that are far lower than the bid from RCA. In view of what has transpired, it will come as no surprise when RCA is announced as the lucky company that is going to get this "urgent" award—much to its happy surprise.

I would not be surprised next month to learn that the Army has generated another of its classic "urgent" requirements—this time for shoulder-borne flame weapons to be produced by Nortronics on a noncompetitive basis, because the Army will say they need them in a hurry, even though they have a 2-year development program already in operation.

The Senate Select Committee on Small Business, of which I am a member, has recently held hearings, during the course of which I was assured by Mr. Robert Moot, the Administrator of the Small Business Administration, that SBA is going to be far more vigorous in seeking corrective action in this area. We have been promised a report on the cases which I have previously reported to the Senate. I am looking forward to receiving these reports.

Mr. President, I believe that this free ride on the taxpayers' back has gone on long enough. Surely, not every research and development program has to come up devoid of manufacturing drawings, precisely in point of time to coincide with an overpowering, overriding demand for immediate delivery. Certainly, we should be capable of orderly planning that would allow open competitive bidding for our military requirements. As it is today, less than 15 percent of all the money spent by the Pentagon—the billions of dollars that we spend—is awarded under contracts based on competitive bidding and public opening of bids. This situation exists in spite of the fact that it is common knowledge that competitive bidding reduces the cost from 30 to 50 percent under noncompetitive costs.

Mr. President, as I have said, this is the third speech I have made on this subject, and the third series of contracts I have brought up. I hope to bring up more such instances in the future, because the point I am making is that somewhere something is wrong in the Army procurement system. One result of this wrong is that tax funds are being spent at a rate far in excess of what is needed. Another result is that the low bidder, time and time again, has been knocked out as the eventual procurer of the contract, and it is given to the big companies that already seem to have a great number of defense contracts. This situation raises questions in my mind and, I believe, in the minds of all of us.

I do not wish to accuse anybody of wrongdoing. But it seems to me that the cases I have already developed are sufficient in nature and in scope to warrant a thorough-going congressional investigation into what is happening in the military procurement policies as they are being administered today under the Secretary of Defense.

(The DOD subsequently requested the insertion of the following into the record:) (See pp. 395, 590.)

Senator Dominick's concern regarding an increased percentage of military procurement accomplished without open competition is without foundation. The Department of Defense publishes annually a report on military prime contract awards and subcontract payments. The latest report covers the period July 1966 to July 1967. Table 9 on pages 32 and 33 of this report reflects competition in military procurements during FY 66 and FY 67. This Table shows that $20.6 billion were awarded on a competitive basis during FY 67 and this represented 47.5% of all Defense purchases. In our reports to the Congress we have stated that 42.9% of all Defense purchases were awarded after price competition. A contract is reported as awarded on the basis of price competition only if the successful contractor won the award by a competitive proposal that definitely provided the lowest evaluated price to the Government. Our reports have not included awards made as a result of technical or design competition—a circumstance which is present when two or more equally qualified sources of supply are invited to submit design or technical proposals, with the subsequent contract award based primarily on this factor rather than on a price basis. Research and development contracts are examples of military awards which fall into this category. It is not correct to state that in Defense purchasing "the average percentage of noncompetitive procurement reaches 86%".

Senator Dominick incorrectly stated that the 100 largest business firms continually get a larger share of Defense business. A Defense report of the 100 Companies and their Subsidiary Corporations listed according to the net value of military prime contract awards for FY 67 shows that the percentage of Defense contracts going to the top 100 Companies has been reduced from 74.2% in 1961 to a low of 63.8% in 1966 with a slight increase of 1.7% in 1967, resulting from an up-swing in aircraft procurement of $2.2 billion in FY 67.

Senator Dominick's comments on the issues surrounding the Research and development contract for a shoulder-borne, transportable flame thrower were discussed in detail in a visit by Assistant Secretary of the Army (R&D) O'Neal with Senator Dominick on 8 February 1967. Subsequently, in a letter of 20 October 1967, Secretary of the Army Resor commented further on this issue. Secretary Resor's letter was entered in the Congressional Record by Senator Dominick on October 24, 1967. Secretary Resor's letter follows:

"OCTOBER 20, 1967.

"Hon. PETER H. DOMINICK,
"*U.S. Senate.*

"DEAR SENATOR DOMINICK: I read with concern your statements in the Congressional Record of 19 and 28 September and 4 October concerning Army procurement policy. I have personally inquired into the matters you raised. For the reasons which follow, my conclusion is that Army actions were made honestly and in accordance with the needs of our combat forces in Southeast Asia.

"You raised first the question of award of the research and development contract for a multi-shot portable flame thrower to Northrop Nortronics, and suggested that the award should have been made to Custom Packaging Company of Aurora, Colorado. Nine manufacturers submitted proposals in response to the Army's request. After a careful technical evaluation Nortronics was ranked 1, Custom 9. Weighting certain factors used in the technical evaluation did not affect Custom's ranking, since no company received a lower score in four of the five characteristics evaluated—technical approach, technical personnel, background experience, and facilities. If the elements of the evaluation had not been weighted at all, the ranking of these two companies would have been exactly the same: Nortronics 1, Custom 9.

"You emphasized that Custom proposed a price of $167,608 for the contract compared to Nortronics' estimate of $387,000. The Army took these cost proposals into account in making the award. But such cost figures, inevitably based on difficult estimates, cannot be made the controlling factor in a research and

development contract, in which the paramount goal is to obtain a product which will meet field requirements. This fact is recognized in the Armed Services Procurement Act, 10 U.S.C., Sec 2304(a) (11), and also in ASPR 4–106.4 and 4–106.5, which make clear that in research and development contracts estimates of cost seldom can be the controlling factor. Custom's proposal simply was not up to the standard required, and the Army would have been wasting money and imperiling the entire development program to award the contract to a company offering so little prospect of success.

"Other questions concerning Custom's efforts to obtain the contract were thoroughly considered by the Comptroller General, who set out in detail the efforts of Custom to interest the Army in its product. See Ms. Comp. Gen. B–160809, 29 June 1967. While the Army was ready to give Custom every consideration, that hardly can be regarded as a solicitation. The fact the contract was awarded one working day before the date once estimated as the approximate time of award was of no consequence, and Custom was promptly notified. The Army did not use or disclose any of Custom's proprietary data, and the Comptroller General concluded that there was 'no substantial basis' for such an allegation.

"The other question you raised concerned several aspects of the development and procurement of the AN/PRC–25 and AN/PRC–77 portable field radios. I shall discuss briefly the principal points which you mentioned.

"First, you suggest that the Army paid too much—$951 per unit—for the 4158 PRC–25 radios purchased for the Marine Corps from RCA by contract of 13 August 1965. That contract was awarded by competitive negotiation to meet an urgent requirement from Southeast Asia for 13,158 PRC–25s. Military necessity required delivery of the entire amount by 30 June 1966, 10 months thence. Only two companies—RCA and Memcor—were in production and could meet that deadline. The Army awarded a contract for 9,000 to Memcor, the lowest-price proposer, which represented that company's total capability to meet the deadline. The remaining quantity, 4158, was awarded to RCA at a unit price of $881.00 not $951. This price understandably was higher than the $625 previously bid by RCA on an earlier buy because the quantity was less (4158 instead of 7278), the production leadtime was less (4 months instead of 12) and Government-furnished equipment was less ($3 per unit instead of $53).

"Second, you expressed concern over the necessity of contracting sole-source for production of the PRC–77 on 28 April 1967. RCA's first production contract called for delivery of a running set of drawings (those used for the initial production run) on 31 March 1967, the date of delivery of the first PRC–77. The initial running set was delivered on 3 May 1967, only 33 days after the originally specified delivery date. This delay resulted from changes in Army operational criteria imposed by new requirements for related communication equipment which were not furnished RCA until February 1967, eight months after contract award. Unavoidable delay by the Army in developing interface data for the related communications security equipment also necessitated a rollback in production deliveries. After negotiations, deliveries were rescheduled to begin in August 1967, five months after the original contract schedule. The contract was modified accordingly. Satisfactory updated production drawings reflecting the communications security interface data were submitted on 6 September 1967. Thus delay in delivery of drawings was attributable to modification in Army requirements, not to RCA. The delay was necessary in order to assure proper characteristics of the production model.

"It is regrettable that military urgency sometimes requires us to begin and to increase production of vital equipment before the widest competition can be obtained. Yet the military requirement was real, was formalized in a memorandum signed by Mr. Vance, then Deputy Secretary of Defense, and could not be ignored. All such requirements are examined carefully to substantiate the urgency of the need. But once the need of our men in the field is clear, the Army always will choose to act at once and save lives, rather than delay in the hope of saving dollars.

"Third, you discussed the PRC–77 contracting officer's rejection of a letter offer by Decitron Electronics Corporation of Brooklyn, New York, to produce the PRC–77 at a unit price of $893.75, or $43.41 per unit less than the price in the contract awarded RCA.

"Decitron's unsolicited letter was not an acceptable proposal. It merely named a price and requested information on the product to be built. The company had

only the most general knowledge of the PRC–77. To build it Decitron would have needed extensive technical data to be obtained from the first production contract, and to wait for them would require slippage in necessary delivery schedules. Without these data, any radio built by Decitron, even if it met most of the general performance standards of the PRC–77, could not be a PRC–77. It would be a new item, with many parts not interchangeable with those of the PRC–77 and probably unable to interface with the amplifier and classified equipment which the PRC–77 uses.

"You also referred to two modifications of the second PRC–77 production contract increasing the quantity, while extending the delivery time. Actually, only one of the modifications you mentioned increased the basic contract quantity. This occurred on 31 May for an additional 1298 units at the basic contract price, in order to meet an urgent need for Southeast Asia—priority '06'. Deliveries will not stretch out beyond the contract term: the 1298 radios will be delivered by RCA between February 1968 and August 1968 at no increase in unit cost to the Government. The production period of the basic contract is February 1968 through May 1969.

"The action on 16 August 1967 was not an increased buy. It was simply the exercise of the second-year part (5400) of the basic two-year contract. The Army awarded a two-year contract in order to obtain a substantially more favorable price per unit on the first-year buy.

"You stated that a foreign company is building the PRC–77 with the RCA drawings. I assume you referred to the radio being manufactured by Tadiran, a company in Israel. That firm does not have the PRC–77 drawings, and as far as the Army is aware is building only a PRC–25 with some improvements designed into it by that firm. It is not a PRC–77.

"In regard to the PRC–62 radio, award of the contract followed established procedures for research and development awards, as is well documented in the General Accounting Office report of 13 February 1964 to former Congressman Wilson which you noted. The Army did not imply that ITT, Bendix, Advanced Communications or General Motors cannot build a portable radio. As the GAO report to Congressman Wilson states: 'All fifteen proposals received were considered responsive.' The award was made to RCA because it submitted the proposal judged most capable of meeting the Army's requirements.

"You implied a favoritism by the Army toward RCA, and toward larger contractors in general, which simply does not exist. The Army certainly makes every effort to award contracts to small business, but cannot do so at the sacrifice of meeting military needs. RCA is a highly competent company and has played a major role in development of portable radios over the years. That it obtains some of the Army's electronics contracts can hardly be surprising. But RCA is by no means the Army's major electronics contractor. It received only $28.5 million out of $851.1 million total USAECOM awards in FY 1967. Nor does Decitron, the company which attempted to obtain the second PRC–77 production contract, lack military business. On 21 September 1967 the Defense Contract Administration Service advised that Decitron's capacity is so overloaded that a plant survey will have to be conducted before placement of any additional Government contracts with the firm.

"Although no names or instances were specified, you implied possible misconduct of Army personnel in award of the PRC–25 and PRC–77 contracts to RCA. I have no reason to entertain such a suspicion and no evidence to support it. However, if any misconduct is revealed by you or by the investigative agencies now on the scene, I shall of course take prompt action.

"Assuring fair, honest and efficient practices in all Army procurement agencies is a responsibility which is taken seriously at all levels of the Army. I should be pleased to discuss the matters covered above, or any others, with you at any time. I believe that in reviewing them you will conclude that the contracting decisions in question were made not only honestly, but wisely and prudently as well.

"Sincerely,

"STANLEY R. RESOR, *Secretary of the Army.*"

The procurement of the AN/PRC–25 Radio Set mentioned by Senator Dominick is discussed in detail in Secretary Resor's 20 October 1967 letter.

The AN/GRA–6 Control Group mentioned by Senator Dominick was developed prior to March 1949 and six production contracts were entered into from that