

UNITED STATES GENERAL ACCOUNTING OFFICE
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STATEMENT OF ELMER B. STAATS, COMPTROLLER GENERAL OF THE UNITED STATES
BEFORE THE SUBCOMMITTEE ON ECONOMY IN GOVERNMENT, JOINT ECONOMIC
COMMITTEE ON THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

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Mr. Chairman and members of the Subcommittee:

I appreciate your invitation to participate in these hearings and to
comment on the recommendations contained in the May 23, 1969 report of
your Subcommittee on ^{Comments on} [the Economics of Military Procurement.]

Initially, I would like to briefly explain the broad areas being
covered by the General Accounting Office as well as some of the recent
changes in emphasis in our accounting, auditing, and legal work.

Of our total operating budget for fiscal year 1969 of \$59.6 million,
over \$30.1 million, or 50.5 percent is related to defense programs and
activities. The allocation of our resources in the accounting, auditing,
and legal and other related functions is slightly in excess of that portion
of defense spending of the total Federal budget, some 43 percent.

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Notwithstanding the unprecedented number of new social, economic, and health programs which the Federal Government has undertaken in the past few years, we continue to place heavy emphasis upon the major functional areas of defense activities, including procurement, supply management, manpower, research and development, facilities and construction, support services, and management control systems.

We have already initiated action to provide increased coverage of defense procurement matters for the fiscal year beginning July 1, 1969, in the following areas of procurement:

- Major Weapons Systems
- Procurement Systems
- Pricing of Negotiated Contracts
- Contract Incentives
- Contract Administration
- Research and Development Management
- Construction Contracts
- Procurement Career Development Program

Our proposed budget for Fiscal Year 1970 provides for a total professional audit staff of 2,585. If approved by this Congress, approximately

425 staff members, or about 16 percent will be involved in defense procurement and contracting areas. In addition, approximately 40 members of our legal staff are concerned with procurement matters.

GAO is confronted with an increasing workload in practically all the larger agencies of the Federal Government. For example, Federal aid to State and local governments is expected to triple in the present decade--from \$7 billion in 1960, to \$25 billion in 1970. The increase in the number and scale of Federal aid programs reflects the high priority being given to investments in human resources. Consequently, we face demands for increasing our efforts with respect to new and expanded programs for health, education, manpower training, housing, welfare, community development and antipoverty programs, generally, and for carrying out substantial efforts in areas such as agriculture, commerce, natural resources and transportation.

In addition to the need to apply additional staff resources in non-defense areas, we have found that we are being asked to do an increasing amount of work in carrying out specific assignments of interest to congressional sources.

During the past two fiscal years our staff effort involved in assignments for specific congressional requests has increased from 238 man-years in 1966, to 445 man-years in 1968, an increase of 207 man-years or nearly 90 percent. During fiscal year 1970 we contemplate that nearly 500 professional staff members--about 18 percent of the total--will be involved in assignments resulting from congressional requests or assignment of our staff to Committees.

Despite the fact that we are increasing our efforts in the defense area, because of other demands on our resources we believe that considerable additional resources would be required to implement the recommendations in your report that are directed to the General Accounting Office. We have not had sufficient time to analyze in depth all of their ramifications, or to determine how the objectives of the recommendations could best be achieved, and whether the results expected would be commensurate with the attendant costs. We need to further consider these matters and we plan to advise you of our views at an early date. At this time, however, I would like to offer some preliminary comments on certain of the recommendations.

Study of Profitability in Defense Contracting

The first recommendation is that the General Accounting Office conduct a comprehensive study of profitability in defense contracting. In our opinion the prerequisites for such a study should include adequate and representative coverage of the entire spectrum of defense contracting, authority to require contractors to respond to requests for information, and authority to verify the data furnished.

Under our present legislative authority, we do have the right of access to contractors' incurred costs under negotiated contracts. By use of this authority we could obtain information on realized profits by individual contract, by product, and by industry. Obtaining information of this nature and performing the necessary verification work would require a sizeable increase in our audit staff.

While we have access to directly pertinent records under negotiated contracts, we do not have access to records relating to advertised fixed-price contracts or to non-Government work, both of which seem to be essential to obtaining information necessary to make a meaningful study

of profits on defense contracts. Also, we do not have the right of access to contractor capital investment data which would be necessary to express profits in terms of return on investment and make comparisons between returns on non-Government and Government work.

Information of this nature generally is not available on an individual contract basis and therefore might be difficult to obtain, even with the full cooperation of the contractors involved.

We believe that our Office would need broad legislative authority as well as additional staff resources in order to undertake a comprehensive study of defense contracting profits which would be of the greatest assistance in evaluating the effectiveness of the various types of contracts used in Defense procurement.

Total Package Procurement

The second recommendation in the report proposes to break down total package procurement into smaller, more manageable segments. Total package procurement was designed to (1) inhibit buy-in with its related problems of overstated performance and understated cost, (2) motivate the contractor to design for economical production, high reliability, and easy maintenance, (3) encourage the contractor to obtain supplies and services from the most efficient reliable sources, and (4) permit the Government to make a choice between competing contractors on the basis of binding commitments for a major portion of the Defense requirement.

The first time this concept was used on a major weapon system procurement was in connection with the C-5A aircraft. When we are dealing with a procurement of the magnitude, complexity and duration of programs such as the C-5A, we have serious reservations as to the feasibility of using the total package concept. Our preliminary conclusion indicates that this method may be best suited for the procurement

of those systems requiring only limited additional development effort and where it is reasonable to break down the Government's requirement into manageable segments and where commitments for contractor performance will not extend over too long a period of time.

I think another point needs to be made on the subject. The term "total package" means different things to different people. You can have a package of one size or another. It depends a great deal on what is included in the package, as to whether or not it is an appropriate contractual arrangement.

The Government prior to contracting for significant production units under a fixed pricing arrangement should have real assurance that the item can be produced and the costs can be predicted with reasonable accuracy. We are, however, giving further consideration to the alternative methods of procurement of weapon systems and expect to have further comments on this matter in the near future.

Weapons Acquisition Status Report

In your report you recommended that GAO develop a weapons acquisition status report to be made to the Congress on a periodic basis. The report is to include information on cost estimates, progress payments, performance standards and impact of changes on cost, schedule, and performance.

In this connection, we have work underway at this time to examine into contractors' management information systems for major weapons. We are interested in whether or not such systems are adequately assisting the contractor in identifying problems on cost, schedule, and technical performance; and to what extent the contractors' systems are being used or could be used by the Department of Defense to obtain needed information on problems as they arise.

With regard to improvements needed in information available in the Department, we are aware of the efforts made in recent years to improve the quantity and quality of information pertaining to the

acquisition of major weapons systems. With regard to information on original cost estimates, underruns and overruns and the estimates to completion of the contracts, the Cost Information Reports system is worthy of note.

This system was designed on the basis of experiments conducted in 1964 and 1965 and was approved by the Bureau of the Budget in 1966. DOD formally implemented the system in June 1966. Consequently, there is beginning to be collected a data bank of actual costs which are broken down in considerable detail in these reports. For example, these reports show the breakdown of contracts into the labor, material, and overhead elements of the major functional categories such as engineering and manufacturing.

The Department of Defense is in the process of clarifying its instructions regarding the use of the system at the present time. We believe that the system represents a major advance over the historical cost information which was available in the Department prior to its implementation.

With regard to the Subcommittee's specific recommendations, a comparison of actual performance of weapons systems with contract specifications in terms of technical performance standards would be very desirable. Further, the proper handling of contract changes and the estimation of their impact on system performance, schedules and cost is one of the most difficult problems involved in the procurement of major weapons systems.

We think that the responsibility for a report of this nature should be with the Department of Defense who has, or should have, the information necessary for its preparation. We will be glad to cooperate with Defense to develop an adequate status reporting system and to review or evaluate from time to time the information included in the reports to assure its accuracy.

Military Procurement Cost Index

You also recommended that GAO develop a military procurement cost index to show the prices of military end products paid by the Department of Defense, and the cost of labor, materials, and capital used to produce the military end products.

The Bureau of Labor Statistics in the Department of Labor is the Government's principal fact-finding agency in the field of cost indices. Presently, the Bureau compiles indices on prices of certain commodities as well as labor costs in certain industries, both of which would be useful in the development of a military procurement cost index. It would seem to us that the Department of Defense in consultation and cooperation with the Bureau of Labor Statistics would be the appropriate agencies to develop such an index.

Should-Cost Method of Estimating

You recommended that GAO study the feasibility of incorporating into its audit and review of contractor performance the should-cost method of estimating contractor costs on the basis of industrial engineering and financial management principles.

We are aware that this technique has been used effectively by the Department of Defense at least in one significant instance. In hearings last month before the House Subcommittee on Military Operations, Mr. Gordon Rule, Director of Procurement Control and Clearance Division, Office of Naval Material, Department of the Navy, testified that the results of the study in this one case saved the Government a minimum of \$100 million. He also said that the should-cost method should be used very sparingly, and only in instances where it is absolutely necessary. We believe the Department should consider what further use should be made of it in contracting and in evaluating contractor performance under certain contracts.

We plan to consider the feasibility of its use in our reviews of contractors' performance under Government contracts. We are interested in whether or not, under present contractual arrangements, contractors

are motivated to reduce costs and to operate in an efficient and economical manner. Some people with whom we have discussed this matter contend that contractors may gain financially by holding costs at a higher level for those contracts where profits are established on the basis of costs or estimated costs of performance.

Although we share your concern about inappropriate use of historical costs, we believe that the should-cost method of estimation, if feasible, is likely to be more useful in conjunction with estimation based on historical costs.

It is important to make the distinction here between the estimating required for major weapons decisions and the independent estimating which should precede a contract award. In the case of major decisions it is most appropriate for the analysts to attempt to determine the most probable costs of the proposed system. On the other hand, once the major decisions have been made the analysts involved in the negotiation of contract prices should have a different point of view and should be more interested in what the product should cost rather than the probable cost if past practices are allowed to continue.

Defense Industrial Personnel Exchange Directory

The report includes the recommendation that GAO compile a defense industrial personnel exchange directory to record the number and places of employment of retired or former military and civilian Defense Department personnel currently employed by defense contractors, and the number and positions held by former defense contractor employees currently employed by the Defense Department.

Establishing such a directory and maintaining it on a current basis, would be a major undertaking, especially for an agency outside the Department of Defense, such as GAO. In fact, since many people move about from one position to another, there may be some question as to the practicality of such an effort in relation to the benefits to be attained. We believe that if a directory is to be established and maintained the Department of Defense should assume the responsibility. In addition, perhaps the concept should be expanded to include other agencies such as NASA and AEC.

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Mr. Chairman, the Committee's report contains two recommendations for legislative action.

Truth-in-Negotiations Act

The report recommends that legislative action should be taken to make the submission of cost and pricing data mandatory under the Truth-in-Negotiations Act for all contracts awarded other than through formally advertised price competition procedures, and in all sole source procurements whether formally advertised or not.

Cost or pricing data provisions included in the Truth in Negotiations Act at the present time are not applicable to negotiated procurement actions over \$100,000 in four situations; (1) a waiver of the provisions by the head of the agency, (2) where prices are set by law or regulation, (3) pricing on the basis of catalog or market prices, and (4) where adequate price competition is present. Mr. Chairman, I will discuss each of these separately.

Waiver of the provisions by the head of the agency was provided in law to permit the Government to obtain necessary supplies and services in rare and unusual situations where the provisions could not, as a practical matter, be imposed. An example of such cases would be contract awards to foreign companies. As long as the waiver privilege is rarely used and not abused, we see no problem with continuing its use. In reaching a conclusion on this

matter, the Congress may want some data from the DOD on usage of the
waiver.

Prices set by law or regulation as in the case of public utilities
should, in our opinion, continue to be exempt from the cost of pricing
data provisions. Since these prices are established by law or regulation
it does not appear that there would be a need in these cases to obtain
cost or pricing data.

Catalog or market prices of commercial items sold in substantial
quantities to the general public must meet certain standards in order to
be properly exempt. There should be, for example, a regularly maintained
catalog. The items involved should be sold in the normal course of business
to other than Government sources in substantial enough quantities to
constitute a real commercial market and to establish fair and reasonable
prices. Such sales must involve end use of the product by the public--
not the Government or an affiliate.

Where these standards can be met, we believe it is not inappropriate
to waive the requirement for submission of cost or pricing data. As our

reviews have shown, the standards are not always met in practice and it may be desirable to require submission of cost or pricing data initially and for procurements made after changes in catalog or market prices.

Adequate price competition as an exemption under the Truth in Negotiations Act indicates that known and qualified sources were given an opportunity to compete, that the low offeror did not have such advantage that he was practically immune to the stimulus of competition, and that a minimum of two companies were independently engaged in the competition.

We have found that the term "adequate price competition" is subject to substantial variations in interpretation by contracting personnel, and that the exemption has been used by industry as an excuse for resisting Government attempts to obtain cost or pricing data. We are in agreement that it would be appropriate for Congress to consider whether this exemption should be modified.

Where competitive influence can properly be bought to bear, regardless of the form, it appears to be in the best interest of the Government to rely on the forces of the market place. We believe this principle should be adhered to generally even though individual instances may appear from

time to time indicating that the extent of competition obtained was questionable. In this latter case cost or pricing data can be and should be requested from the contractor.

This is also true when competition is lacking under formal advertising procedures. In such circumstances the agency should negotiate under exception 15 of the Armed Services Procurement Act and obtain cost or pricing data from the prospective contractor.

To sum up our views, we believe that the Government should rely on competition in setting prices, but should obtain cost data in any case where there is question as to the effectiveness of competition in establishing fair and reasonable prices.

Use of Patents

You also recommended that legislative action should be taken to establish uniform guidelines for all Federal agencies on the use of patents obtained for inventions made under Government contract. Many patents also have been obtained by contractors for inventions arising under their independent research and development (IR&D) programs, the cost of which frequently is borne to a significant degree by the Government. Consequently in view of the difference in Government rights to inventions under these two situations, they will be discussed separately.

Inventions made under Government Contracts

The General Accounting Office has been aware for many years of the lack of uniform guidelines for Federal agencies with respect to the ownership of patent rights to inventions arising from performance of work under research and development (R&D) contracts. We recognize that there are arguments that can be made justifiably in favor of retention of such

rights by the Government, but we also recognize that convincing arguments can be made favoring retention of such rights by contractors provided that the Government obtains a royalty-free license to use of such inventions.

In 1963, we began a broad review of Government patent activities with the primary objective of establishing a basis for advising the Congress as to Government policies, practices, and procedures relating to ownership and disposition of inventions resulting from Government-financed research work.

In October 1963, shortly after our review started, the President issued a memorandum and statement of Government patent policy which established for the first time basic criteria to guide all executive departments and agencies not otherwise governed by statute in allocating rights in inventions made under Government contracts. It was our opinion that this statement recognized many of the problems which prompted our study. In addition, the President's policy required that reports be made concerning the utilization of patents arising from Government-sponsored research, which information previously had not been available.

In September 1966, the Committee on Government Patent Policy established by the Federal Council for Science and Technology commissioned a special study into the patent policy questions. A report prepared by Harbridge House, Inc., covering the results of this study was released in May 1968. It is our understanding that as a result of this study the Federal Council for Science and Technology is recommending certain changes in the President's patent policy. We have been informed that the proposed changes will not drastically modify the President's patent policy. However, pending receipt of further information in this area we are not in a position to comment on this matter.

Inventions Made Under Contractors IR&D Programs

The President's patent policy statement does not apply to inventions arising under contractors' independent research and development (IR&D) programs, and the Government does not obtain any rights to title or use of such inventions although, in many cases, the Government reimburses contractors for a major part of their IR&D costs.

The cost to the Government for participation in IR&D programs is significant, exceeding \$600 million in 1966. According to information furnished to us by contractors during a study of contractors' IR&D programs, a substantial portion of their patents resulted from inventions arising from IR&D programs. These programs are frequently closely related to the work being performed under R&D contracts funded directly by the Government, under which the Government is entitled to obtain at least royalty-free license rights, and it appears that it may be difficult at times to determine whether a given invention arose from work under the IR&D program or the R&D contract. Our previous studies have disclosed a need by the Department of Defense to take steps to provide greater assurance that the Government is obtaining all the rights to which it is entitled.

In view of the relationship between IR&D and contracted R&D work and in view of the substantial amounts of IR&D costs being absorbed by the Government, we have proposed that a special study be undertaken by the Federal Council for Science and Technology as to whether the

Government should receive royalty-free license rights to inventions arising from IR&D. We have been informed by the Office of Science and Technology and by the Bureau of the Budget that a study into this area would be appropriate.

Government Policies on Participation in IR&D Costs

As stated previously, over \$600 million was spent by the Government in 1966 for its participation in contractors' IR&D programs.

In view of the significant amount involved, congressional interest in this subject, and the differences between the procurement policies on IR&D followed by the Atomic Energy Commission (AEC) and those followed by the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA), we have made a study of IR&D.

The bulk of the Government's expenditures for participation in contractors' IR&D programs are authorized under Armed Services Procurement Regulation (ASPR) 15-205.35 which is followed by both DOD and NASA. This regulation permits allowance of "reasonable" IR&D costs as indirect costs provided independent research is allocated to all work of the contractor

and provided independent development is allocated to all work of the contractor on product lines for which the Government has contracts.

The current regulation provides some broad criteria for determining the reasonableness of expenditures for IR&D, including such factors as previous contractor R&D activity, cost of past programs, and changes in science and technology. The ASPR also provides that these expenditures should be pursuant to a broad planned program, reasonable in scope, and well managed. It further provides that such expenses should be scrutinized with great care in connection with contractors whose work is predominantly or substantially with the Government.

The current regulation also states that, in recognition that cost sharing of a contractor's program may provide motivation for more efficient accomplishment of such program, it is desirable in some cases that the Government bear less than an allocable share of the total cost of the program. We have found that cost sharing has been used extensively.

AEC's policies on acceptability of IR&D costs differ significantly from the ASPR policy, primarily because of the difference in method

of operation. AEC's contract work is performed mainly by contractors who operate AEC-owned plants and laboratories on a cost-plus-a-fixed-fee basis. The generation of new ideas through R&D is an integral part of the program which is completely financed by AEC. There is, therefore, no independent research and development performed by the contractors under an AEC operating contract but the equivalent thereto is performed and fully funded as a part of the AEC program.

About 20 percent of AEC business is generally with contractors who perform the contract work in their own facilities and without Government advance of funds. In addition, the contractors who operate AEC-owned plants and laboratories subcontract some work with industrial firms. These subcontractors, as well as the prime contractors who perform in their own facilities, frequently are also engaged in contract work with DOD or NASA.

The major difference between the AEC policy toward acceptability of IR&D costs and the policy currently followed by DOD and NASA is as follows:

The contractor's entire IR&D program is not submitted to or evaluated by AEC for reasonableness. Rather, the contractor submits for evaluation individual projects. The cost of these projects is accepted for allocation only when AEC establishes that the projects individually benefit, either directly or indirectly, existing AEC contract work.

DOD/NASA, on the other hand, generally negotiate agreements with companies conducting large IR&D programs, specifying the maximum amount of costs which will be considered reasonable. To facilitate such negotiations DOD/NASA may (1) request contractors to submit brochures describing their entire planned IR&D programs, and (2) perform a technical evaluation of the contractor's IR&D program. The negotiated amount of the program that DOD/NASA considers reasonable for allocation is based on the entire program rather than representing a project-by-project determination of acceptability.

Proposed revisions now under consideration provide for determination of "reasonableness" of IR&D and related costs by means of a formula

generally based on costs and sales of previous and current years.

This formula approach will eliminate the negotiation of advance agreements and, consequently, the need for evaluation of contractors' IR&D programs. We have been informed, however, that evaluation of specific IR&D programs will be made on a selective basis.

We have been asked by the Chairman of the ASPR Committee to review and comment on the proposed revisions. Our evaluation has not been completed pending receipt of additional information that we have requested from DOD.

Our analysis to date indicates that the Government's share of IR&D costs will increase substantially if the proposed revisions are adopted. Further, the Government's control over the costs it will incur will be lessened, and the degree of assurance it now has that the IR&D efforts will be in areas in which the Government has an interest could be significantly diminished.