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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Honorable David Pryor United States Senate

Cost Effectiveness Of Dual Sourcing For Production Price Competition Is Uncertain

Dual sourcing is a competitive procurement technique wherein contract awards for a product are split between two or more sources, with the larger share usually going to the lower priced supplier.

Although dual sourcing has been clearly authorized when justified by national defense or mobilization base needs, authority for dual sourcing solely to reduce costs had not been resolved under federal procurement statutes until recently. Public Law 98-369 authorizes the use of dual sourcing where it would increase or maintain competition and likely result in reduced costs, beginning April 1, 1985.

None of the dual sourcing identified in GAO's study was undertaken solely or primarily for price competition and the cost effectiveness of this form of competition remains untested.



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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS DIVISION

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The Honorable David Pryor
United States Senate

Dear Senator Pryor:

Your letter of January 19, 1982, asked us to study dual sourcing as a method of obtaining competition in the production of supplies and equipment for the federal government. Pursuant to that request and subsequent agreements with your office concerning the scope and limitations of our work, this report discusses the outcome of the study and our conclusions.

Copies of this report are being sent to the heads of the agencies involved in the study and to other interested parties, and will be available to others upon request.

Sincerely yours,

A handwritten signature in cursive script that reads "Frank C. Conahan".

Frank C. Conahan
Director



D I G E S T

Prior to the July 18, 1984, enactment of Public Law 98-369, the Armed Services Procurement Act of 1947 and the Federal Property and Administrative Services Act of 1949 provided two methods for the government's acquisition of property and services: formal advertising and negotiation. These statutes express a preference for use of formal advertising in the acquisition of goods and services by the Department of Defense (DOD) and civil agencies. In formal advertising, a contract is competitively awarded to the responsive and responsible bidder submitting the lowest evaluated price.

However, the laws permit the negotiation of contracts when formal advertising is not feasible and practical. The provisions of the Competition in Contracting Act of 1984 contained in Public Law 98-369 amended the Armed Services Procurement Act and the Federal Property and Administrative Services Act to eliminate the preference of formal advertising over negotiation. It substitutes instead competitive and noncompetitive procedures for the acquisition of property and services by the government.

Dual source procurement has been suggested as one means of obtaining additional competition. In requesting this review, Senator Pryor expressed concern that DOD and the civil agencies were not taking advantage of opportunities for competition afforded through dual source procurement. With the concurrence of the requestor's office, GAO defined dual source procurement as a competitive technique wherein each of two or more sources concurrently produces the same product for the same buying office, with award of the larger share of quantities usually going to the lowest price source.

AUTHORITY FOR DUAL SOURCE
PROCUREMENT SOLELY
FOR PRICE COMPETITION
RECENTLY CLARIFIED

Public Law 98-369 authorizes the use of dual sourcing by DOD and civil agencies beginning

April 1, 1985, where it would increase or maintain competition and likely result in reduced costs.

Until then, the prior provisions of the existing acts remain in effect. Under these provisions, authority for production dual source procurement is provided under the Armed Services Procurement Act's 16th exception to the use of formal advertising (10 U.S.C. §2304(a)(16)). This authority enables DOD, the National Aeronautics and Space Administration (NASA), and the Coast Guard to negotiate contracts, when it promotes the interest of national defense or the industrial mobilization base. Negotiating a contract under this authority involves splitting an award between two or more sources.

Generally, civil agencies are bound by the Federal Property and Administrative Services Act. This act does not provide authority to dual source in the interest of national defense or the industrial mobilization base, but authority for dual sourcing for production price competition is now provided for under Public Law 98-369. (See pp. 10 to 12.)

EXTENT OF DUAL SOURCE
PROCUREMENT BY FEDERAL
AGENCIES APPEARS LIMITED

No data collection or reporting systems reliably identify DOD or civil agency production dual source procurements. This was a major factor in setting the scope and developing the methodology for this review. (See p. 2.) Without a reliable data base a precise determination of the extent of dual source procurement in federal agencies is impractical.

GAO reviewed Army, Navy, and Air Force use of dual sources within a universe covering the production of aircraft, missile and space systems, tanks and automotive equipment, weapons, ammunition, and electronics and communication equipment. Also six civil agencies--the Departments of Agriculture, Energy, and Transportation; NASA; and the General Services and Veterans Administrations--were selected for review of their supplies and equipment procurements. As further agreed with the requestor's office, GAO limited the scope of its review to fiscal year 1981, which was the most recent period for which federal procurement universe statistics were

available at the time of GAO's fieldwork. (See app. I.)

After screening items the services identified as meeting GAO's dual source and universe criteria, GAO selected a sample of 55 DOD items with high dollar value contract actions totaling about 89 percent of the screened dollar value.

A total of 27 of the 55 DOD items were verified as concurrently produced by dual sources in fiscal year 1981. The combined dollar value of fiscal year 1981 Army, Navy, and Air Force dual source contract actions ranged from about \$1.8 billion to about \$2.1 billion. This represents from 4.4 percent to 5.1 percent of the approximate \$41.5 billion total value of all three services' fiscal year 1981 contract actions within GAO's selected universe. The Navy expended the highest percentage of production dollars through dual source procurement and the Air Force expended the least. (See p. 4.) However, GAO recognizes that not all of the procurements within the selected universe may be suitable for dual source production.

The six selected civil agencies accounted for about 75 percent of the approximate \$4.3 billion total of fiscal year 1981 civil agency supply and equipment contract obligations over \$10,000 reported through the Federal Procurement Data System. After exclusion of formally advertised contracts and contracts to educational/nonprofit institutions and some types of businesses, the value of the six-agency universe was reduced from about \$3.3 billion to about \$1.8 billion. (See app. II.)

Of the civil agencies, only NASA reported any dual source activity in fiscal year 1981. NASA's two dual source actions involved obligations amounting to \$658,200 and equate to about 0.2 percent of its fiscal year 1981 supplies and equipment procurement universe and to about 0.04 percent of the approximate \$1.8 billion six-agency universe established for this study.

GAO believes that opportunities for use of dual source procurement are unlikely to increase in civil agencies' procurements. Three agencies, including NASA, said their production requirements were typically too low for dual sources. The three others said they procured commercial type products readily available from competitive market sources. (See app. II.)

DUAL SOURCE PROCUREMENT NOT
USED SOLELY FOR PRODUCTION
PRICE COMPETITION IN DOD

Price competition was not a primary objective in any identified DOD dual source procurements. Instead, DOD buying offices measured the success of dual source procurement mainly by how well the procurement action supported national defense and industrial mobilization base interests. In only 7 of the 55 DOD production items included in GAO's sample was price competition cited as a secondary objective. However, although price competition was not the primary objective, an incentive for price competition was introduced through award of a larger share of the production quantity to the low price suppliers for 17 of the 27 DOD items that conformed to GAO's selected dual source and universe criteria. The Navy created a different incentive by awarding a higher rate of profit, rather than more units, to the overall low price suppliers for seven Trident missile components. (See p. 5.)

None of the Army or Air Force dual source items were complete major weapon systems. All were parts, components, or subsystems of major weapons. Two of the Navy's dual source items--the FFG-7 Perry Class Guided Missile Frigate and the SSN 688 Los Angeles Class Nuclear Powered Attack Submarine--were complete major weapon systems. Variations were found both in the quantities and the dollar value of component level items procured by the three services from dual sources. These items ranged from large quantities of inexpensive components to small quantities of expensive components. (See pp. 5 to 9.)

OFFICIAL DOD POLICY
AND GUIDANCE FOR DUAL
SOURCING IS LIMITED
AND NEEDS TO BE DEVELOPED

Beyond the limited Defense Acquisition Regulation provisions, which implement the Armed Services Procurement Act, GAO found little in the way of official DOD or individual service policy or guidance pertaining specifically to dual source procurement. The perceived limitations on the use of dual sourcing prior to enactment of Public Law 98-369 may, in part, account for the lack of dual sourcing guidance. Such guidance is needed to implement the new law. (See pp. 12 to 15.)

ADVANTAGES AND DISADVANTAGES
OF DUAL SOURCING

GAO found that the perceived potential advantages and disadvantages of dual source procurement were varied. The advantages most often cited were (1) cost savings, (2) maintenance or improvement of the industrial mobilization base, (3) improved product performance or quality assurance, and (4) meeting delivery schedule requirements. The most widely perceived disadvantage concerned the recurring and nonrecurring costs required to develop, qualify, and maintain a second source. (See ch. 4.)

Although the less experienced DOD dual source suppliers had produced the items for an average period of 2 years less than the original or longest producers, they were the low price suppliers for half of all dual source items in fiscal year 1981. Thus, with time, some second sources can apparently overcome the competitive advantage of original or more experienced suppliers.

However, dual source procurement solely for production price competition can be cost effective only when the product price reduction resulting from competition outweighs all costs to the government for establishing and maintaining the additional source. The major problem is identifying such procurements when faced with uncertainties about their future.

In the absence of cost/benefit analyses for 26 of the 27 DOD items, GAO could not conclude whether fiscal year 1981 dual source procurement resulted in a net financial gain or loss. Moreover, two previous GAO reports reached a similar conclusion in connection with consideration of dual sources for the IR Maverick and Harm missile programs. (See pp. 19 and 20.)

When dual source procurement is employed to satisfy national defense or industrial mobilization base needs, the DOD buying offices' view is that a cost/benefit analysis is unwarranted. If dual source procurement were to be employed primarily for achieving cost savings through production competition, GAO believes it essential that a cost/benefit analysis be performed prior to a dual source decision. (See pp. 22 and 23.)

CONCLUSIONS AND OBSERVATIONS

GAO believes that awarding a larger share of production quantities or a higher percentage of profit to low price dual source suppliers can provide an incentive for price competition. Also, with time, some second sources can overcome the competitive advantage of established suppliers. However, without DOD cost/benefit analyses for the items that were procured from dual sources primarily for other than cost reduction purposes, GAO could not determine if the price reductions were large enough to provide savings when all dual source procurement costs were considered. (See p. 24.)

Because dual source procurement's cost effectiveness has not been demonstrated, DOD should proceed cautiously in using the new authority in Public Law 98-369 and should document savings through cost/benefit analyses on a case-by-case basis. (See p. 24.)

AGENCY COMMENTS AND GAO'S EVALUATION

GAO obtained written comments on its draft report from the Departments of Defense, Agriculture, Energy, and Transportation; the Office of Management and Budget; and the General Services, Veterans, and National Aeronautics and Space Administrations. (See apps. VIII through XV.) DOD's and the Office of Management and Budget's (OMB's) comments took exception to some of GAO's conclusions. (See pp. 24 to 29.) The other agencies generally agreed with GAO's presentation or had no comments because of their limited use of dual sourcing.

DOD said it is developing guidance and analytical methodology for dual source procurement. OMB said that dual source procurement should be limited to those cases where it has been demonstrated it will likely result in reduced overall cost.

GAO believes guidance and the employment of case-by-case cost/benefit analyses are essential to an agency's determination of the savings likely to be achieved through dual source procurement. However, this does not eliminate GAO's underlying concern that dual source procurement's overall cost effectiveness is uncertain. The cost savings validity of the production dual source concept is unknown.

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ABBREVIATIONS

AFSC	Air Force Systems Command
ASPA	Armed Services Procurement Act
DARCOM	Development and Readiness Command (Army)
DOD	Department of Defense
DODI	Department of Defense Instruction
FMS	foreign military sales
FPASA	Federal Property and Administrative Services Act
GAO	General Accounting Office
NASA	National Aeronautics and Space Administration
NAVMAT	Naval Material Command
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget



CHAPTER 1

INTRODUCTION

Prior to the July 18, 1984, enactment date of Public Law 98-369, and the effective date of amendments to the Armed Services Procurement Act (ASPA) of 1947 and the Federal Property and Administrative Services Act (FPASA) of 1949 on April 1, 1985, the Congress, through the ASPA and the FPASA, established requirements that the Department of Defense (DOD) and the civil agencies acquire their goods and services, whenever feasible and practical, by means of formally advertised competition. In such competition, the contract is awarded to the responsive and responsible bidder submitting the lowest evaluated price. In cases where formal advertising is neither feasible nor practical, these laws provided 17 exceptions to its use for DOD, the Coast Guard, and the National Aeronautics and Space Administration (NASA), and 15 exceptions for the other civil agencies. The exceptions provided agency contracting officers the authority to negotiate contracts when properly justified. The recent law eliminates the preference for formal advertising over negotiation. The emphasis is now on competitive versus noncompetitive procurement procedures.¹

Formally advertised contracts are almost always price competitive. When the negotiation method is used, agencies are still required to base awards upon competition to the maximum extent practical; however, negotiated awards can be either competitive or noncompetitive. Furthermore, competitive negotiated awards can be based upon design and technical factors rather than the lowest price. Our previous reports² on the extent of competition in DOD and civil agency procurement have shown cause for concern regarding the degree to which competition is actually achieved.

OBJECTIVES, SCOPE, AND METHODOLOGY

This review was made at the request of Senator David Pryor who expressed concern that DOD and the civil agencies are not taking advantage of competitive opportunities afforded through dual source procurement. He characterized dual sourcing as a competitive procurement method wherein annual buys of a given product or service are split between contractors rather than awarded entirely to a single source. Senator Pryor asked us to examine a range of matters including the extent and nature of

¹See chapter 3 for additional discussion of the effect of Public Law 98-369 on the ASPA and the FPASA.

²DOD Loses Many Competitive Procurement Opportunities (PLRD-81-45) July 29, 1981; and Less Sole-Source, More Competition Needed on Federal Civil Agencies' Contracting (PLRD-82-40) April 7, 1982.

dual sourcing by DOD and civil agencies, its advantages and drawbacks, any barriers precluding or constraining its use, and legislative or other actions needed to assure its appropriate use.

In the early stages of our work, we informed the Senator's office that dual sourcing did not have the status of an organized DOD programmatic initiative such as the DOD Value Engineering Program, which is designed to eliminate nonessential features from contract requirements. That program is encouraged and guided by a DOD directive establishing, among other things, objectives, policies, and a requirement for regular recording and reporting by DOD components of all value engineering actions and their projected cost savings. Such a reporting system enables a reasonably efficient determination of the extent and estimated results of an endeavor.

In contrast, DOD does not have a collection or reporting system dealing specifically with dual sourcing data. Commingled records and files concerning prime contract dual sourcing activity are spread throughout the military commands' program management and buying offices. By all indications, this data has never been gathered and compiled to portray the overall extent and results of dual sourcing in DOD. We also confirmed that there were no prime contract dual sourcing reporting systems in selected civil agencies.

Furthermore, the execution of a major prime contract is often dependent upon many subcontracts that can represent a substantial portion of the total prime contract dollar value. However, responses to our inquiries indicated that records of the amount spent through subcontracts and the portion of that amount involving dual source subcontracting are not collected and maintained and that such information could be obtained only from the individual prime contractors.

Our approach to this review was materially affected by the fact there were no reliable dual source data reporting systems. A detailed discussion of our scope and methodology is presented in appendix I. Also, in view of the limited involvement of civil agencies in dual source procurement, we have summarized the results of our study of their fiscal year 1981 dual source activity in appendix II.

Our review was completed and agency comments received prior to enactment of Public Law 98-369. The draft of this report upon which the agencies commented has been modified to recognize the new law.

CHAPTER 2

THE EXTENT AND NATURE OF DOD'S

USE OF DUAL SOURCE PROCUREMENT

IN FY 1981

Dual sourcing apparently constitutes a small portion of DOD's major hard goods procurement. Furthermore, dual sourcing in fiscal year 1981 was not employed solely or primarily for the purpose of price competition. We also found that the characteristics of dual source procurement and the duration of its use varied.

In the absence of a data base, we asked the Army, Navy, and Air Force what items they dual sourced in fiscal year 1981. Although we did establish a uniform definition of dual sourcing and did define the specific procurement universe to be considered, we did not prescribe the method to be used by the services for identifying their dual source procurements.

Procurement officials at Army's Development and Readiness Command (DARCOM) Headquarters believed all of the Army's dual source actions were taken primarily in the interest of national defense or industrial mobilization, as authorized by 10 U.S.C. §2304(a)(16). They believed a general indication of production prime contract dual sourcing could be obtained through computer extraction--from DOD's DD350 Procurement Action Report System--of negotiated procurements authorized under exception (16) to the requirement for formal advertising. The Navy employed the same approach; but the Air Force, instead, asked its buying offices to manually identify their fiscal year 1981 dual sourcing actions. However, both methods have limitations and neither can be realistically considered an efficient or effective substitute for a systematically maintained data base.

DUAL SOURCING APPEARS TO CONSTITUTE A SMALL PORTION OF DOD'S MAJOR HARD GOODS PROCUREMENT

The total dollar value of all fiscal year 1981 DOD contract actions within our special major hard goods universe was \$42.152 billion. The Army, Navy, and Air Force accounted for \$41.474 billion, or about 98 percent of that total. Our assessment of the extent of DOD's use of dual sourcing in fiscal year 1981 was limited to the items Army, Navy, and Air Force headquarters procurement officials identified as meeting our dual source and universe criteria. They initially identified dual source procurement actions amounting to \$3.251 billion, but preliminary screening with the services deleted some items and reduced the value to \$2.766 billion.

We then formed a sample consisting of 55 items with high dollar value contract actions totaling \$2.465 billion, or about 89 percent of the screened dollar value, and subjected it to on-site verification audit. We found that 27 of the sampled items, with fiscal year 1981 contract actions amounting to \$1.813 billion, conformed to our definitive dual source and major hard goods production criteria. Moreover, if it were assumed that the items excluded from our sample also met the criteria, the value of fiscal year 1981 dual sourcing by the services would be \$2.114 billion.

Subject to the thoroughness of the services' identifications of dual sourcing actions, it appears that their combined use of dual sourcing fell within a range of 4.4 percent to 5.1 percent of their \$41.474 billion major hard goods universe.³

The level of dual source utilization by each of the services appears in the following table and shows that the Navy expended the highest percentage of its major hard goods production dollars through dual sourcing and the Air Force expended the least. However, we recognize that, because of variable individual procurement characteristics, not all of the procurements within our special major hard goods universe may be suitable candidates for dual sourcing.

Dual Sourcing for Major
Hard Goods Production in FY 1981

	Size of major hard goods universe (billion)	Amount dual sourced (billion)		Percent of universe dual sourced	
		Minimum	Maximum	Minimum	Maximum
Army	\$ 9.650	\$0.269	\$0.470	2.8	4.9
Navy	18.502	1.409	1.509	7.6	8.2
Air Force	<u>13.322</u>	<u>0.135</u>	<u>0.135</u>	1.0	1.0
Total	<u>\$41.474^a</u>	<u>\$1.813</u>	<u>\$2.114</u>	4.4 ^a	5.1 ^a

^aSee footnote 3 below.

³price competitive negotiated procurements were included in the DOD and civil agency universes. The inclusion of these procurements is reflected in figures on this and following pages concerning the dollar value of the major hard goods universe and the percentage of the universe dollar value expended through dual sourcing. However, this has little effect on our portrayal of the extent of DOD dual sourcing. With such procurements excluded from the DOD universe, the services' combined use of dual sourcing would range from 4.9 percent to 5.7 percent rather than the 4.4 percent to 5.1 percent shown. (See pp. 26, 27, and 30 to 32.)

DUAL SOURCING WAS NOT EMPLOYED
SOLELY OR PRIMARILY FOR THE
PURPOSE OF PRICE COMPETITION

Price competition was not among the factors cited by cognizant Army, Navy, and Air Force procurement officials as a sole or primary purpose for dual sourcing any of the 55 DOD items included in our sample. The predominant motivations for dual sourcing were maintenance or improvement of the industrial mobilization base and the establishment of adequate production capacity to support delivery requirements for specific programs. Furthermore, price competition was cited as a secondary objective for only 7 of the 55 items.

We concluded that the most often used incentive for price competition through dual sourcing is to award a higher volume of production to the lower priced supplier. Even though price competition was not the primary objective of DOD dual sourcing in fiscal year 1981, that incentive was present, to variable degrees, in 17 of the 27 DOD sample items found in conformance to our definitive dual source and major hard goods production universe criteria. However, a different incentive, employed only by the Navy in dual source awards for seven Trident missile components, provided a higher percentage of profit to the overall low price suppliers for these items. Under this arrangement, equal quantities of each of the items were awarded to the high and low price suppliers.

Overall, the original or longest producing sources for all items meeting our definitive dual source and universe criteria had produced these items for an average of 5.4 years. Although the less experienced sources had produced the items for an average of only 3.4 years, they were the low price suppliers for half of the items in fiscal year 1981. This seems to indicate that, with time, some second sources can, to a significant extent, overcome the competitive advantage of original or more experienced suppliers.

CHARACTERISTICS OF DUAL SOURCE
PROCUREMENT WERE VARIED

The characteristics of dual sourcing by each of the military services are discussed below.

ARMY

Twelve of the 30 Army items sampled met our definitive dual source and universe criteria. None of these were complete end items such as tanks, helicopters, or missiles. All were parts, components, or subsystems and their individual procurement characteristics varied from a quantity of nearly 19 million expendable low price items, costing little more than a dollar each, to a quantity of 90 electronics equipment sets costing an average

of \$79,397 each. The low price suppliers for 10--83 percent--of the items were awarded contracts for more units than the high price supplier or suppliers.⁴ However, the supplier for 1 of the 10 items, while having a unit price 29.4 percent lower than the high price supplier, was awarded 46 of a total of 90 units. The high price supplier was awarded a nearly equal quantity.

The high price suppliers for the other two items were awarded more units than the low price suppliers. The low price suppliers' unit prices for the two items averaged 20.6 percent less than the high price suppliers'. In the first case--a solid state computer for a tank--Army procurement officials explained that the distribution of units was made in this manner because the lower priced producer was behind its delivery schedule for earlier units. In the second case, the award of an equipment test set was made in this manner to provide one contractor the minimum quantity required to maintain its production line, with the remaining quantity going to the other source.

Overall, the Army's low price suppliers' unit prices average about 22 percent less than the high price suppliers' and the low price suppliers were awarded an average of about 16 percent more units than the high price suppliers.⁵ The original or longest producing sources had produced the items for an average period of nearly 6 years, and they were the low price sources for about 42 percent of the dual sourced Army items in fiscal year 1981. The other less experienced sources had produced the items for an average period of 3.3 years, and they were the low price sources for about 58 percent of the Army items in fiscal year 1981.

AIR FORCE

Four of the five Air Force items sampled met our definitive dual source and universe criteria. As was the case with the Army items, none of the Air Force items were complete end items, such as aircraft or missiles. All were components of aircraft systems. Quantities and cost ranged from over 7 million 30mm aircraft ammunition shells costing an average of about \$13 each,

⁴For 8 of the 10 items, the lowest priced offeror was awarded more units bound for U.S. inventory. For two other items, the lowest priced offeror was awarded fewer U.S. units, but received a larger share of the overall award when foreign military sales (FMS) units were considered.

⁵The price and quantity averages referred to in these sections are weighted averages. Appendixes III and IV list all dual sourced Army items and give simple arithmetic averages and descriptive statistics useful in evaluating the range of price differences for these dual sourced items.

to 381 aircraft ejection seats averaging \$73,781 each. Unlike the Army items, the low price suppliers for all four Air Force items were awarded more units than the high price suppliers.

Overall, the Air Force's low price suppliers' unit prices averaged about 14 percent less than the high price suppliers' and the low price suppliers were awarded an average of about 27 percent more units than the high price suppliers.⁶ None of the four Air Force items were purchased from more than two suppliers. The original or longest producing sources for three of the four items had produced them for an average period of 2.7 years and were the low price sources for one of the dual sourced items in fiscal year 1981. The less experienced sources had produced the same items for an average period of 1.7 years and were the lowest priced suppliers for two of the three Air Force items in fiscal year 1981. Both of the suppliers of the fourth Air Force item had produced it for the same period of time, but neither was the original producer.

NAVY

Eleven of the 20 Navy items sampled met our definitive dual source and universe criteria. Unlike the Army and Air Force, two of the items--the FFG-7 Perry Class Guided Missile Frigate and the SSN 688 Los Angeles Class Nuclear Powered Attack Submarine--were complete major end items. A total of six frigates was unevenly distributed (3-2-1) among three contractors at an average unit price of about \$87.1 million. Contract awards for the four submarines were unevenly divided (3-1) between two contractors at an average unit price of \$226.6 million. In both instances, the low price suppliers were awarded more units than the higher price suppliers. The low price source for the frigate, with a 10.8 percent lower unit price than the average of the two higher price sources, received three ships and the other two suppliers received two and one. The low price source for the submarine, with a 2.8 percent lower unit price, received three of the four awarded.

The balance of Navy items meeting the criteria were all components or subsystems of two Navy missiles and none were purchased from more than two sources. These items ranged from a quantity of 72 Trident missile electronics assemblies, costing an average of \$348,982 each, to a quantity of 1,592 Sidewinder missile target detectors, exclusive of FMS units, with an

⁶The price and quantity averages referred to in these sections are weighted averages. Appendixes III and V list all dual sourced Air Force items and give simple arithmetic averages and descriptive statistics useful in evaluating the range of price differences for these dual sourced items.

average unit price of \$5,912.⁷ (See pp. 30 and 31 for discussion of FMS and other universe exclusions.) However, as we mentioned before, the Navy chose to provide a higher percentage of profit rather than more units to the overall low price suppliers for seven Trident missile components.

Four contractors were involved in producing the Trident missile components. Two were awarded identical contracts for five of the seven items and the other two contractors were awarded identical contracts for the remaining two items. The Trident items averaged approximately 14 percent less, on a weighted average basis, than the total of the highest unit prices for each item. However, the unit price differentials are calculated without regard to which of the two suppliers of the same item offered the best price. Since, with the exception of but one item, each of the two suppliers for both pairs of contracts offered the highest price on some items and the lowest price on others, the actual net difference between high and low price offers for these contracts averaged only 1.25 percent on a total contract basis. Total contract price was the basis for the Navy's determination of profit award.

The Trident program office advised us that the award distribution of Trident missile items was made evenly so that contractors could plan on predictable quantities and could avoid the attendant problems of yearly changes in production rates. Although quantities were equally divided, a price competition incentive was introduced by providing an approximately 10 percent higher rate of profit to the total contract low price suppliers.

While the low price supplier's unit price for Sidewinder missile target detectors was about 3.5 percent less than the high price supplier's, the high price supplier was awarded half of the 1,592 target detectors.⁸ Naval Air Systems Command awarded equal quantities of Sidewinder target detectors to both the original and second sources to place a heavy demand on the production capacity of the second source. Full utilization of existing capacity was considered a necessary prelude to expanding the second source's production rate to a level equivalent to the original source's. Air Systems Command believed that once production rate parity was achieved the probability of meaningful price competition and the opportunity for reduced procurement costs would be increased.

⁷In commenting on our draft report DOD took exception to our figures on Sidewinder missile target detectors. DOD's figures did not recognize that FMS units are excluded from our universe. With FMS units deleted, the figures shown are correct.

⁸Appendixes III and VI list all dual sourced Navy items and give simple arithmetic averages and descriptive statistics useful in evaluating the range of price differentials for them.

The original sources for the FFG-7s, the SSN 688s, and the Sidewinder target detectors had produced these items for an average period of 6 years, and they were the low price suppliers for them all in fiscal year 1981. The less experienced sources had produced the same items for an average period of 5 years. The four suppliers for the various Trident missile items had all produced the items continuously for a period of 5 years, and all had participated in the earlier development effort.

DUAL SOURCING IS VARIABLE WITH THE
NATURE AND PURPOSE OF ITS USE

Dual sourcing can be a long-term arrangement, as with the Navy FFG-7s. Contracts from fiscal year 1976 through 1981 for 48 of these ships have been dual sourced in the interest of maintaining dispersed east and west coast production capability for this element of the fleet. In contrast to this extended dual sourcing, a Navy procurement official expressed the opinion that just the indication of buying office interest in dual sourcing the Harm missile may have been a factor in causing the sole-source supplier to improve its unit price, without the actual introduction of a second source. Furthermore, dual sourcing may be applied to only a portion of total production requirements to recover from mid-production sole-source performance problems. It may also be used to introduce an element of price competition for an existing sole-source producer in a planned future buy-out of remaining production quantities.

CHAPTER 3

FEDERAL STATUTES AND DOD

POLICY AND GUIDANCE

CONCERNING DUAL SOURCE PROCUREMENT

Public Law 98-369 authorizes dual sourcing solely or primarily for price competition beginning on April 1, 1985. DOD needs to develop policy and guidance to implement the new authority for dual sourcing.

AUTHORITY FOR PRODUCTION
DUAL SOURCING SOLELY
FOR PRICE COMPETITION

On July 18, 1984, the President signed Public Law 98-369. This act amends the ASPA and FPASA which respectively govern all procurements by DOD, NASA, and the Coast Guard and generally the other civil agencies in the executive branch. Among other changes, the new law specifically authorizes dual sourcing when it would increase or maintain competition and likely result in the reduction of overall costs, or when it would be in specified national defense interests. Prior to these changes, authority for dual sourcing for price competition had not been resolved, although the ASPA authorized its use in the interest of national defense or industrial mobilization. The dual sourcing provisions of Public Law 98-369 become effective on April 1, 1985, and until that time the existing statutes remain in effect.

The new law eliminates the statutory preference for formal advertising over negotiation. Public Law 98-369 mandates that competitive procurement procedures be used whenever possible in awarding federal contracts for property or services. There are only seven exceptions to competitive procedures which permit federal agencies to use noncompetitive procedures in the award of contracts. The new law carefully defines the terms and circumstances where noncompetitive procedures may be used. The general rule is that government contracts should be competitively awarded. Whether this is accomplished by use of formal advertising or negotiations is secondary to the use of competitive procurement procedures.

Prior to these changes, the ASPA and the FPASA established formal advertising as the preferred method of procurement. However, the FPASA provided 15 exceptions to the use of formal advertising, and the ASPA lists these 15 plus 2 more. The 16th exception in the ASPA (10 U.S.C. §2304 (a)(16)) authorized negotiation of a contract when:

"* * * [the agency head] determines that (A) it is in the interest of national defense to have a plant,

mine, or other facility or producer, manufacturer, or other supplier, available for furnishing property or services in case of a national emergency or (B) the interest of industrial mobilization in case of such an emergency, or the interest of national defense in maintaining active engineering, research, and development would otherwise be subserved."

Negotiation is expected to consider as many sources as is feasible, and no negotiation authority expressly precludes negotiating contracts with more than one source. However, within the statutory framework established by the ASPA, exception (16) provided the only specific statutory basis for dual sourcing.

Senior procurement officials at DARCOM and Naval Material Command (NAVMAT) Headquarters believed that, although the ASPA authorized the use of production dual sourcing in the interest of national defense or industrial mobilization, the act did not authorize dual sourcing for the principal purpose of creating production price competition. In addition, over 20 years ago the Assistant Secretary of Defense, Supply and Logistics, while opposing the concept of production dual sourcing for the sole purpose of price competition, believed that statutory amendment would be required to provide additional negotiation authority for that purpose. We consider the perceived limitation of statutory authorization to be one of the most important factors bearing on the use of dual source procurement solely or primarily as a production cost reduction strategy.

We agree with DARCOM and NAVMAT procurement officials that the ASPA, prior to its amendment, authorized the use of production dual sourcing in the interest of national defense or industrial mobilization. However, whether authority exists for dual sourcing solely for production price competition was not resolved.

Civil agencies bound by the provisions of the FPASA had no authority to negotiate contracts enabling production dual sourcing in the interest of national defense or industrial mobilization and authority for dual sourcing solely in the interest of price competition was unresolved.

The Office of Federal Procurement Policy (OFPP), however, has a different view. Federal Acquisition Circular 84-3, issued June 29, 1984, implements OFPP's Policy Letter 84-2 issued February 27, 1984, on noncompetitive procurement. The policy letter provisions are similar to competition procedures in the Competition in Contracting Act of 1984 contained in Public Law 98-369. Among other things, the circular requires that competition be used in the award of federal contracts for goods and services except in seven circumstances. The circular also authorizes dual sourcing for price competition and in national defense interests. The circular takes effect on October 1, 1984, and will be superceded by Public Law 98-369 on April 1,

1985. However, we have been advised recently that the Director of the Office of Management and Budget has approved OFPP action rescinding the policy letter. Also, we expect the implementing Circular 84-3 will be rescinded soon.

Public Law 98-369 expressly authorizes dual sourcing for price competition and specified national defense interests. Specifically, the law permits DOD and civilian executive agencies to exclude a particular source from a procurement in order to establish or maintain an alternative source or sources where the exclusion increases or maintains competition and would likely result in reduced costs. Dual sourcing under the new law appears broader in effect than the meaning we have associated with splitting an award between two producers. Under Public Law 98-369, one source can be totally excluded from an award if the other statutory conditions are met.

Furthermore, the General Provisions of the Department of Defense Appropriations Act for 1984 include the following requirements at section 797.

"None of the funds made available by this Act shall be used to initiate full-scale engineering development of any major defense acquisition program until the Secretary of Defense has provided to the Committees on Appropriations of the House and Senate

- (a) a certification that the system or subsystem being developed will be procured in quantities that are not sufficient to warrant development of two or more production sources, or
- (b) a plan for the development of two or more sources for the production of the system or subsystems being developed."⁹

Another recent act, Public Law 98-191, December 1, 1983, authorized OFPP, upon the agreement of the selected testing agency(s), and the Congress as necessary, to implement a nontraditional competitive concept testing program, for approaches such as price competitive dual sourcing.

OFFICIAL DOD POLICY AND GUIDANCE
FOR DUAL SOURCING IS LIMITED
AND NEEDS TO BE DEVELOPED

Beyond the ASPA's implementing provisions of the Defense Acquisition Regulation, we found little official DOD or

⁹Concerning the requirements specified at section 797, we agree the production quantity is an important factor, but believe it should be recognized that many characteristics of a procurement, other than the size of the procurement quantity, bear importantly on a financially productive dual source decision.

individual service policy or guidance pertaining specifically to dual sourcing. We questioned officials in the Office of the Secretary of Defense, military service headquarters, and the various buying offices we visited concerning the extent of dual sourcing guidance.

We spoke initially with the Director of Contract Policy and the Director of Major Systems Acquisition in the Office of the Under Secretary of Defense, Research and Engineering. The Director, Contract Policy, was not aware of any DOD directives, instructions, or other official DOD documents dealing specifically with dual sourcing and said he doubted that any existed, since dual sourcing was but one of many procurement strategies related to competition. The Director, Major Systems Acquisition, stated that, to his knowledge, official DOD guidance had not been provided for use in production dual sourcing considerations and decisions motivated by price competition. He also stated that he was aware of nothing other than Department of Defense Instruction (DODI) 5000.2, dated March 19, 1980, that discussed the use of production dual sourcing for price competition. This instruction, which covered major system acquisition procedures contains statements supportive of increased competition during production and refers specifically to dual sourcing. It stated that the economics for establishing a second production source should be discussed at Defense Systems Acquisition Review Council Milestone I Planning Meetings. In the the revised DODI 5000.2, issued on March 8, 1983, the brief reference to dual sourcing contained in the March 19, 1980, version was deleted. The revised DODI 5000.2 does not specifically mention dual, second, or multiple sourcing at all.

We also examined DOD Directive 5000.1 for major systems acquisitions, which was reissued as the companion document to DODI 5000.2 on March 29, 1982. Although this directive discusses the need for considering the maintenance of production phase price competition in the formulation of acquisition strategy, it too does not specifically mention dual, second, or multiple sourcing as a means of achieving price competitive production.

Senior procurement officials at DARCOM and NAVMAT were unaware of any documents setting forth official DOD or service policy or guidance specifically concerning the use of production dual sourcing solely for reasons other than national defense or industrial mobilization.

Furthermore, through interviews with procurement officials at the nine Army, Navy, and Air Force buying offices we visited, we found that:

- Seven had no official DOD or service policy or guidance specifically covering the use of production dual sourcing for price competition. The other two buying offices were unaware of any official policy or guidance in this area.

- Eight had no official guidelines either for identifying potentially good candidates for dual sourcing or for performing cost/benefit analyses to determine the most likely productive candidates. One was unaware of any such guidelines.
- Six had no official guidelines for the selection of the most appropriate dual source implementation technique. One was unaware of any such guidelines and two named the leader-follower, teaming arrangement, or component break-out provisions of the Defense Acquisition Regulation.
- Six did not require their production prime contractors to dual source their subcontracts. One seldomly and another occasionally imposed such a requirement and one did not comment.
- Four considered the lack of clear official policy or guidance to be one of the factors restraining the use of dual sourcing for price reduction.

Some service sponsored training classes, in part, reportedly address dual sourcing to some extent. Also, various DOD component studies and DOD and service memoranda have been issued on the subject of dual sourcing, but they are generally advisory or propositional in nature and are offered only for consideration in connection with the buying office practice of dual sourcing.

At the military service level, DARCOM issued a policy letter to its major subordinate commands on March 22, 1983, pertaining to the use of exception (16) to support industrial mobilization base requirements or national defense. This letter does make specific reference to dual sourcing for competition, stating, in part, that acquisitions may be split between producers to maintain the planned producer base and to foster competition or acquire additional sources. Also, Air Force Systems Command (AFSC) Headquarters issued a letter to its subordinate components on March 31, 1983, citing manufacturing competitive cost reduction, product development/improvement, and strategic redundancy/production surge capability as basic objectives of dual sourcing. The letter offers planning guidance to the AFSC subordinate units. The need to issue the letter stemmed from manufacturing-related concerns arising from AFSC's review of recent dual source acquisition planning documents.

The Office of the Under Secretary of Defense, Research and Engineering, cited several other documents as examples of guidance and special emphasis placed on all aspects of competition over recent years. These documents warrant recognition for their projection of DOD upper level management support for increasing competition in general. However, as with the documents we discussed earlier, they say little about how to effectively employ the dual source form of price competition for

production cost reduction, and they cannot be considered adequate to meet the special need for specific guidance on the use of this complex and potentially risky competitive format.

We believe that the perceived limitations on the use of dual sourcing, prior to enactment of Public Law 98-369 may, in some part, have contributed to the lack of dual sourcing guidance. Since the enactment of the recent legislation removes all uncertainty surrounding the use of dual sourcing, we believe official DOD policy and guidance needs to be developed to implement the new statutory authority.

CHAPTER 4

ADVANTAGES AND DISADVANTAGES

OF DOD DUAL SOURCING

Although views concerning positive and negative aspects of DOD dual sourcing were quite varied, the potential advantage most frequently identified was cost savings generated through price competition. On the other hand, the added cost of establishing and maintaining dual sources was the most frequently cited disadvantage. However, without military service cost/benefit analyses for 26 of the 27 items meeting our criteria, we were unable to reach a conclusion with regard to the actual financial gain or loss realized through dual source competition. OFPP reported that although competition, when properly used, is the best stimulus to arrest cost growth and to generate optimal prices, continued research and operational experimentation must be conducted to assure achievement of its maximum benefits.

The following advantages and disadvantages of DOD dual sourcing are the combined views expressed (1) by the military buying offices, (2) in reports on several service studies, (3) in DOD and service memoranda, (4) during congressional testimony in connection with competitive procurement, and (5) in an OFPP report on a May 1981 Joint DOD/OFPP Competition Workshop.

ADVANTAGES

Although the perceived potential advantages of DOD production dual sourcing are varied, those most often cited were, in order

- cost savings generated through price competition,
- maintenance or improvement of the industrial mobilization base,
- improved product performance or quality assurance, and
- meeting delivery schedule requirements.

Other, but less frequently cited, benefits included

- facilitating North Atlantic Treaty Organization and FMS coproduction and multinational agreements,
- maintaining or improving advanced technology sources,
- reducing the effect of supply and demand fluctuations on industry,
- facilitating the achievement of socioeconomic goals,

- reducing the risk of dependency upon a sole source,
- facilitating the development of new sources for future programs, and
- reducing the need for expensive cost studies and government surveillance.

DISADVANTAGES

Perceived disadvantages of DOD production dual sourcing were as diverse as the perceived advantages, but concern for the cost of establishing and maintaining production dual sourcing was dominant. Three specific areas of added cost were cited.

1. Nonrecurring startup costs and availability of funds to develop and qualify a second source. Included in this category were
 - new or modified facilities,
 - special tooling and test equipment,
 - technical data package acquisition and validation,
 - production qualification testing, and
 - special procurement to provide second source learning experience.
2. Recurring costs to maintain production competition once established. Included were
 - payment of higher unit prices to one supplier under split awards to subsidize competition,
 - added staffing and overhead costs for second source and additional government management and administration costs with two sources, and
 - increased cost due to contractor learning curve retardation and affects on contractor's economic order quantity purchases and economic production rates when production quantities and rates are reduced resulting from dual source split awards.
3. Recurring and nonrecurring costs involved in the acquisition of patent rights, copyrights, proprietary processes, and the cost of royalty payments and licensing agreements.

Other perceived disadvantages to production dual sourcing were:

- Standardization and logistics problems when dual sourced items are not identical.
- The need for assured large quantity procurements and the risk of loss of the government's dual sourcing investment if the total production quantity or the production rate is cut back.
- Time restraints for second source development when the delivery schedule is critical.
- The difficulties and complications of program control increase with dual sources and the tendency is to follow the path of least resistance.
- Delivery and performance problems occur if the design is not stable before dual sourcing.
- Second source problems in passing qualification tests.
- The questionable cost control motivation when a contractor is assured the award of a minimum quantity.

Other perceived obstacles to dual sourcing were that:

- It may take years to recover the government's up-front investment cost and, since potential benefits are distant and uncertain, there is hesitance to commit front end investments without well demonstrated benefits.
- The lack of strong useful quantitative information on the benefits of competition or guidance on its application and the critical factor of savings uncertainty and the presence of so many variables create the need for a better way to make savings determinations.
- With complex systems involving expensive tooling and facilities, the benefits of dual sourcing cannot offset the costs.
- Program managers (1) doubt evidence of benefits on other programs and question applicability of and higher level support for competition on their programs, (2) are generally reluctant to establish competition during production because the problems and disincentives loom large and introducing competition may significantly complicate program management, and (3) emphasize system performance, and competition may not be a primary concern.
- Individuals may be more motivated by their own needs (e.g., promotion) than by the need to take a perceived risk to obtain the potential benefits of competition.

--The availability of potential second sources and the government's need to obtain the sole-source contractor's cooperation to develop a second source.

The arrangement of perceived advantages and disadvantages is based solely upon the relative frequency with which they were so identified. It does not infer the frequency with which the advantages or disadvantages are realized.

DUAL SOURCING COST
EFFECTIVENESS IS UNCERTAIN

Although cost savings was the most frequently cited potential benefit of dual sourcing, only one buying office could provide evidence of a cost/benefit analysis in connection with items dual sourced in fiscal year 1981. That study by an Air Force buying office, however, showed that costs might increase under dual sourcing. One other buying office, a Navy office, believed that a cost/benefit analysis had been made but could not locate it. The Army and other Air Force and Navy buying offices were unable to identify any such analyses related specifically to the 27 DOD items dual sourced in fiscal year 1981 in conformance to our criteria. The buying offices explained that since the items were dual sourced primarily in the interest of national defense or industrial mobilization concerns, price was a secondary factor and cost/benefit analyses were not necessary. The buying offices' measure of success for dual sourcing was basically a function of how well the dual source actions supported their primary objective of maintaining or improving national defense and the industrial mobilization base.

As previously stated, the absence of military service cost/benefit analyses for 26 of the 27 items dual sourced primarily for national defense precluded our evaluation of the net cost savings or increase associated with those items. Also, since none of the items we examined were dual sourced solely for price competition, there was no opportunity to judge the cost effectiveness of this untested form of dual sourcing. The one Air Force analysis concluded that, while the overall economic outcome of its plan for dual sourcing an aircraft component was dependent upon the uncertain total quantity of items to be produced, the most probable production quantity could result in an Air Force dual source investment loss of from \$600,000 to \$4.6 million.

Two of our previous reports¹⁰ have addressed the cost effectiveness of DOD production dual sourcing. The first,

¹⁰Transmittal Letter and Statement of Fact on the USAF's IR Maverick Program from the Director, GAO Institute for Program Evaluation, to Senator David Pryor, May 4, 1983; and Analysis of Harm Procurement Strategies (GAO/NSIAD-83-59) September 12, 1983.

issued in May 1983, found that an assumption that competitive dual sourcing on the IR Maverick missile program would necessarily result in savings was not substantiated. The report concluded that the effect of competition on cost could well be no effect at all, or even an additional cost growth, or a savings that would not equal the projected savings. The second report in September 1983 concluded that, in connection with consideration for dual sourcing the Harm missile, there could be little assurance about the extent price competition would provide a return on the investment which must be made to bring the second source on line.

While we have not found sufficient evidence to show a cost savings for dual sourcing, other organizations have reported favorably on the savings potential. In July 1981 testimony before the House Committee on Appropriations, Subcommittee on Defense, the vice president of The Analytical Sciences Corporation and former Deputy Assistant Secretary of Defense (Material Acquisition) reported that the corporation's studies had found typical cost savings of 30 percent upon introduction of production dual sourcing. The conclusions reached in studies by the Army Procurement Research Office were less optimistic, but indicated overall average savings of 7.1 percent for 4 ammunition items and 10.8 percent for a mixture of 16 missile, electronic, and torpedo systems. The 10.8 percent savings figure is represented as being a net overall average savings after nonrecurring and recurring costs for establishing and maintaining dual sources have been considered. However, we have reservations about the figure. Although the research office study refers to an Army Missile Command report that estimated added government administrative costs exceeded 2.9 percent on a \$35 million Missile Command dual source program, the research office study did not include government administrative costs in arriving at its 10.8 percent overall average savings estimate. Also, the study does not appear to recognize that, as long as a portion of the production requirements are bought from the high price dual source supplier in a split award, the government pays more than it would if all units were bought from the low price source. Furthermore, the research office said that, where material procurement and subcontracting comprised a substantial amount of total contract cost, it had to assume a learning rate for the material and subcontracting portion of contracts and that, in such instances, the savings estimates were in effect assumed.

As stated earlier, the buying offices' basic measure of dual sourcing success was not cost savings, but was, instead, a function of the degree to which dual sourcing achieved the prime objective of mobilization base maintenance or improvement. In this context, the Navy FFG-7 frigate and the SSN-688 submarine are examples of dual sourcing actions successfully supporting the maintenance of dispersed multishipyard production capability.

The Army Copperhead 155mm projectile is an example of dual sourcing not being implemented, although it had initially been considered. This resulted from a later reduction in the quantity of units to be produced.

The Army's early effort to dual source a previously sole-sourced power supply is an example of unsuccessful dual sourcing. Due to cash flow and other financial difficulties, two second sources in succession failed to make any deliveries and their contracts were terminated for default.

CHAPTER 5

CONCLUSIONS AND OBSERVATIONS

There is no reliable data base which identifies items concurrently produced by dual sources. Therefore, a confident determination of the extent of DOD's use of dual sourcing is impractical. The previously discussed methods employed in place of a data base provide only a general indication of dual source activity.

Although DOD's fiscal year 1981 dual sourcing was principally motivated by national defense and industrial mobilization base objectives, current attention to this method of procurement stems largely from interest in its potential for price competition and cost reduction. However, as discussed in chapter 3, it was not resolved whether the ASPA, prior to enactment of Public Law 98-369, authorized the use of dual sourcing solely or primarily for competitive production. Consequently, price and cost reduction have been only secondary objectives subordinate to the authorized objectives of maintaining or improving national defense and the industrial mobilization base.

We fully concur with OFPP's view that production dual source competition is a highly complex matter. We also believe it demands very thorough case-by-case analysis and early careful planning and preparation.

DOD buying offices believe that when dual sourcing is employed primarily for fulfilling truly critical national defense or industrial mobilization base needs a cost benefit analysis is not warranted. But, if under the provisions of Public Law 98-369 dual sourcing is employed solely for production cost savings, we believe a cost/benefit analysis prior to a dual sourcing decision is essential.

IDENTIFYING COSTS/BENEFITS IS DIFFICULT

Dual sourcing solely for price competition can be truly cost effective only in those procurements where the product price reduction exceeds the total of all costs to the government for establishing and maintaining the additional source(s). The principal difficulty lies in correctly identifying such procurements when faced with uncertainties about their future course. Uncertainty and unforeseen change impede early planning and greatly increase the complexity of cost/benefit determinations. Cost/benefit analyses for dual sourcing undertaken solely or primarily in the interest of cost savings through production competition will require exacting recognition and quantification of dual sourcing costs and savings.

In the face of uncertainties, these analyses may be partially dependent upon assumptions concerning various technical, schedule, and management matters which will affect the

eventual financial outcome of the dual sourcing effort. Examples of such matters are the amount, source, and availability of funds required to establish and maintain a second source; the existing sole-source contractor's continued learning curve behavior, if a second source had not been introduced; the existing sole-source contractor's reactive and continued learning curve behavior upon introduction of a second source; the eventual production quantity and rate; the performance of a previously untried second source producer; and the most appropriate technique for implementing dual sourcing.

Furthermore, we recognize that dual sourcing may achieve a unit price reduction below the price paid to an existing sole source; however, if a portion of the production requirements are bought from the high price supplier, the government pays more than it would if all units were bought from the low price source. The additional cost of the high price units, in effect, serves to subsidize the continued maintenance of dual source price competition once it has been established.

Not recognizing or underestimating costs stemming from the establishment and maintenance of dual sourcing can lead to a government loss on its investment; as could an overstatement of product price reduction. On the other hand, an overstatement of costs or an understatement of price reduction can cause rejection of a dual sourcing action, which might have led to a financial gain on the government's investment.

As stated in chapter 3, none of the nine buying offices were aware of any official DOD or service policy or guidance concerning (1) dual sourcing cost/benefit analyses, (2) identification of potential candidates for dual sourcing, or (3) dual sourcing for price reduction and cost savings. Seven were unaware of any official guidance for selection of the most appropriate dual source implementation technique. Four of the eight buying offices actively engaged in production contracting considered the absence of clear official policy or guidance to be a factor restraining the use of dual sourcing for cost reduction. We believe that clear official DOD policy and guidance should be provided on these matters. Also, six of the nine buying offices stated they did not require their production prime contractors to dual source their subcontracts. We believe that official DOD policy and guidelines are needed in this area as well, particularly in connection with contracts where the prime contractor subcontracts a large share of the work.

Furthermore, since the historical form of dual sourcing (in the interest of maintaining or improving national defense and the industrial mobilization base) is retained in Public Law 98-369, it is also in need of official uniform DOD guidance to improve the possibility of achieving savings when production cost reduction is a secondary objective of dual sourcing.

In summary, we believe that the award of a larger share of a production quantity or a higher percentage of profit to the low price supplier can provide some incentive for production price competition. Our study indicates that, with time, some second sources can overcome the competitive advantage of original or more experienced suppliers. However, military service cost benefit analyses were not performed for 26 of the 27 items dual sourced primarily for mobilization base concerns in fiscal year 1981. Consequently, we could not determine whether or not the incentive generates price reductions adequate to yield an overall net reduction in cost, when all recurring and nonrecurring costs for establishing and maintaining a second source have been counted. Also, as stated before, two of our previous reports reached a similar conclusion concerning consideration for dual sourcing the IR Maverick and Harm missile programs. Furthermore, since dual sourcing solely or primarily for interests other than national defense or the industrial mobilization base generally has not been perceived to be authorized under the ASPA, dual sourcing's effectiveness, if used solely as a production cost reduction strategy, appears yet to be tested.

In view of the above matters and the complexities and uncertainties associated with dual sourcing, we believe DOD should proceed cautiously in using the new authority in Public Law 98-369 and should document savings through case-by-case cost/benefit analyses.

AGENCY COMMENTS AND OUR EVALUATION

We requested comments on our report from DOD; OMB; the Departments of Agriculture, Energy, and Transportation; and the General Services, Veterans, and National Aeronautics and Space Administrations. (See apps. VIII through XV for each of these agencies comments.) DOD and OMB took exception to some of our conclusions. The other agencies generally agreed with the conclusions reached in our report or had no comments because of their limited use of dual sourcing. Each agency's comments are discussed below.

DOD

We received official DOD comments on our draft report. DOD's written comments appear in appendix VIII. DOD believes the report has generally taken a realistic view of dual sourcing and states it concurs with our findings that:

- Dual sourcing appears to constitute a small portion of DOD's major hardgoods procurement.
- Dual sourcing was not employed solely or primarily for the purpose of price competition.
- Existing statutes did not clearly authorize production dual sourcing solely or primarily for price competition.

--Evidence is insufficient to permit a conclusion regarding the actual net financial gain or loss realized through dual source price competition.

DOD disagreed with conclusions in our draft report about the need for better demonstration of cost-effectiveness and more guidance on use of dual sourcing before legislation was passed authorizing dual sourcing for price competition. Because the enactment of Public Law 98-369 has made this discussion moot, we have changed our conclusions in this final report. DOD's specific comments are included as appendix VIII.

We stated in our draft report that little official DOD or individual service guidance pertains specifically to dual sourcing. DOD acknowledged that specific guidance had not been issued for dual sourcing, but believed the report should recognize DOD's guidance and special emphasis placed on all aspects of competition. DOD cited several previously unidentified documents as examples of guidance and special emphasis placed on competition in general. We have recognized the documents where appropriate in the report.

Furthermore, as stated earlier, the historical form of dual sourcing--primarily in the interest of maintaining or improving national defense and the industrial mobilization base--is also in need of official uniform DOD guidance to improve the possibility of achieving savings when production cost reduction is but a secondary objective of dual sourcing.

DOD believed that our draft report incorrectly indicated the \$41.47 billion DOD major hard goods universe we developed for this study consisted primarily of sole-source production efforts and that the universe includes competitive procurements that should be excluded. DOD said it would not consider applying dual sourcing in any programs that have competition.

DOD rightly observed that the universe figure is not only reflective of sole-source procurements, but still, in our view, the universe family of major weapon system components, subassemblies, and end items largely forms the core of special design weapon system sole-source production. Furthermore, the civil agency procurement data system did not identify price competitive negotiated procurements. Consequently, in the interest of DOD and civil agency universe consistency, price competitive negotiated procurements were retained in both universes.

However, this had little effect on our portrayal of the extent of DOD dual sourcing in fiscal year 1981. With such procurements excluded from the DOD universe, the services' combined use of dual sourcing would range from 4.9 percent to 5.7 percent rather than the 4.4 percent to 5.1 percent shown. We believe our draft report was correct; however, we have provided clarifying discussion of these matters where appropriate in the report.

DOD suggested our report should recognize that not all of the procurements in the universe may provide an opportunity for the use of dual source competition. We concur and have added appropriate statements in the report.

In regard to DOD's comment that it would not consider applying dual sourcing in any programs that have competition, DOD seems to believe that programs which are being or have been subjected to any form of competition should not be included in the major hard goods universe. Such an approach would exclude from the universe (1) nonprice competitive procurements following earlier procurement price competition, (2) nonprice competitive initial design or technical competition, and (3) nonprice competitive procurements following earlier design or technical competition.

We cannot concur with DOD's view on this matter. Our report examines dual sourcing as a technique for increasing price competition for the purpose of reducing production costs. Therefore, we believe the universe should include, as it does, initial and follow-on nonprice competitive procurements as potential candidates for price competitive dual sourcing.

DOD expressed concern that our draft report included a statement which incorrectly indicated the DOD Office of General Counsel felt the use of ASPA exception (10) to the requirement for formal advertising might be appropriate to authorize dual sourcing beyond the limits of exception (16). We have deleted the statement from our report.

We expressed a general view in our draft report that well-considered, realistic goals for price competition are as appropriate as similar objectives for weapon performance and delivery. DOD said establishing goals for dual source price competition is neither practical nor realistic. We agree with DOD's comment on goals to the extent that, until dual sourcing cost reduction effectiveness has been better demonstrated, the establishment of goals to increase its use would be unwarranted.

OMB

OMB's comments on our draft report appear in appendix IX.

After characterizing dual sourcing as but one of various methods that can be used to foster competition, OMB said it agrees guidance is necessary on when and how it should be used and which method should be used. However, OMB further stated such guidance must of necessity be broad, because of the impossibility of anticipating all the circumstances and considerations that might be present in any given program.

We recognize the difficulties, but we believe that efforts must be made to make the guidance as specific as possible, especially in connection with the cost/benefit analytical

methodology to be used to enable proper consideration of all attendant costs and offsetting savings prior to any dual source decision.

OMB agreed that a cost/benefit analysis should be a prerequisite to dual sourcing for price competition, but disagreed with our conclusion that dual sourcing's cost reduction effectiveness should be better demonstrated in advance of any statutory amendment. OMB said better demonstration of effectiveness seems superfluous, as long as any statutory amendment is worded to limit dual sourcing to procurements where it has been demonstrated it will likely reduce overall costs. OMB apparently refers here to demonstration of cost effectiveness through individual case-by-case cost/benefit analysis.

We fully concur with the essential need for the best possible case-by-case cost/benefit analysis prior to decisions on individual dual source procurements, but this does not relieve our underlying concern that dual sourcing's cost effectiveness is uncertain.

In connection with statutory authorization for dual sourcing, we stated in our draft report that then existing statutes did not clearly authorize production dual sourcing solely or primarily for price competition. We also stated the statutes should be amended to clearly authorize such use, if dual sourcing is to be employed solely for this purpose.

OMB said it did not believe there has been a clearly demonstrated legal requirement for statutory amendment; however, it did agree that clarification of the statutes was desirable, if the use of dual sourcing is to be expanded (to encompass price competition).

OMB said we have formed a conclusion about dual sourcing as a cost reduction technique based on items dual sourced primarily for reasons other than cost reduction and believes the conclusion is questionable.

According to the DOD buying offices, none of their dual source procurements were made solely or primarily in the interest of production cost reduction. Dual sourcing has been historically motivated principally in the interest of national defense and mobilization base needs. In the absence of military service cost/benefit analyses for the items dual sourced for this purpose in fiscal year 1981, we were unable to conclude whether dual sourcing with price competition a secondary objective results in financial gain or loss. Furthermore, since none of the items we examined were dual sourced solely or primarily for price competition, there was obviously no opportunity to judge the cost effectiveness of this untested form of dual sourcing. Moreover, if dual sourcing had been employed solely for cost reduction purposes without analysis of the actual financial outcome, our conclusion that dual sourcing's cost

effectiveness needed to be better demonstrated would be unchanged.

OMB informed us it understands there are several items undergoing dual source development in the full-scale engineering development phase which will provide more data on the cost/benefit of dual sourcing. Cost/benefit data concerning dual sourcing during the research and development phase would not appear to have much bearing on the cost effectiveness of dual sourcing during the production phase. However, if the timing were appropriate when these items enter the production phase, OMB and DOD could have considered them as possible candidates for operational testing to demonstrate production dual sourcing cost reduction effectiveness.

The balance of OMB's comments were essentially editorial. Where the suggested editorial changes were appropriate, we have incorporated them.

Agriculture

The department's comments on our draft report appear in appendix X. The letter repeats comments, provided to us earlier in response to a questionnaire we sent to six civil agencies, stating that the department perceives no need for dual sourcing authority to achieve better product prices.

Energy

The department's comments on our draft report appear in appendix XI. The letter states that the department believes dual sourcing properly applied can be an effective incentive to some second sources to overcome the competitive advantage of more experienced suppliers, but the added costs for establishing and maintaining an additional source may never be recouped. The department had no comments regarding the findings and conclusions of our report.

Veterans Administration

The administration's comments on our draft report appear in appendix XII and state concurrence with the content of the report.

NASA

NASA's comments on our draft report appear in appendix XIII. The letter requested the correction of figures and revision of a statement. We have made the suggested revisions.

Transportation

The department's comments on our draft report appear in appendix XIV. The letter states that the department has no

plans to use dual sourcing on any of its major programs, and makes no specific comments on the report.

General Services Administration

The administration's comments on our draft report appear in appendix XV and indicate that it has no additional comments beyond those provided in response to our earlier questionnaire.

SCOPE AND METHODOLOGY

A data base adequate to determine the extent of dual sourcing in the federal government does not exist. This was a major factor in setting the scope and in developing the methodology for our work. We believed an indication of the level of prime contract dual sourcing could be obtained if we narrowed our universe and closely tailored the scope of our review. Accordingly, dual sourcing was defined as a competitive procurement technique wherein two or more sources concurrently produce the same product for the same buying office, with the larger share of the split award of production quantities usually going to the lowest price supplier. We found this definition sufficiently flexible to encompass dual sourcing situations where the reasons for the dual sourcing were such non-price factors as maintaining the industrial mobilization base and establishing production capacity adequate to support required delivery rates.

As agreed in scoping discussions with the Senator's office, the basic universe for this review encompassed only fiscal year 1981 production prime contract actions, over \$10,000, including contract modifications, performed by U.S. business firms in the U.S. Fiscal year 1981 provided the latest federal procurement universe statistics available at the time of our fieldwork. All research/development, service, FMS, educational/nonprofit institution, and formally advertised prime contracts were excluded, as were all subcontracts.

The DOD universe was further limited, within the basic universe, to nonintragovernmental Army, Navy, and Air Force prime contract actions for major hard goods only--DOD Claimant Program Numbers A-1 through A-7--covering the production of aircraft, missile and space systems, ships, tanks and automotive equipment, weapons, ammunition, and electronics and communication equipment. We recognize that not all procurements in our limited DOD universe may be suitable for dual sourcing. However, this particular family of products includes the various components and subassemblies of major weapons as well as the final assembly weapon system end items. In our view, these products largely form the core of special design major weapon system sole-source production, which we believe could gain the most from increased competition. We developed the total dollar value of fiscal year 1981 contract actions in this special universe from data published by the Office of the Secretary of Defense in its Fiscal Year 1981 Prime Contract Awards Report P03 and from the DD 350 master computer tape in connection with our exclusion of formally advertised contracts from the DOD universe.

The civil agency universe was also further limited, within the basic universe, to production prime contract actions for supplies and equipment only--Federal Supply Classification

Groups 10 through 99--by six selected civil agencies. The agencies were selected, with one exception,¹¹ purely on the basis of the high dollar value of their respective all inclusive fiscal year 1981 procurements of supplies and equipment, over \$10,000, by all methods of contracting with all types of businesses.

The following table shows the selected civilian agencies and the total dollar value of their all inclusive individual fiscal year 1981 procurement actions obligating more than \$10,000 for supplies and equipment. The six agencies alone accounted for about 75 percent of the total dollar value of fiscal year 1981 obligations for supplies and equipment by all 59 of the civil agencies reporting through the Federal Procurement Data System.

<u>FY 1981 Contract Actions</u> <u>Obligating Over \$10,000</u>	
	<u>Amount</u> (millions)
Department of Agriculture	\$ 844.8
Department of Energy	480.8
Department of Transportation	633.8
General Services Administration	574.9
NASA	391.9
Veterans Administration	329.1
53 other civil agencies	<u>1,071.1</u>
Total	<u>\$4,326.3^a</u>

^aTotal does not add due to rounding.

Following the selection, we excluded from the civil agency procurement data formally advertised and educational/nonprofit institution contract actions and contract actions performed by other than U.S. firms in the U.S. This established the approximate \$1.8 billion special six-agency supply and equipment universe for our study.

While some difference between the DOD and civil agency universes is unavoidable, a basic objective of the universe formations was to limit the inconsistency between them. Although the DOD and civil agency procurement data systems enabled

¹¹We excluded the Tennessee Valley Authority because it is a Government-owned corporation and not a typical Federal agency.

exclusion of formally advertised procurements, the civil agency data system did not identify price competitive negotiated procurements. Consequently, for the purpose of universe consistency, price competitive negotiated procurements were retained in both universes. However, this had but a minor effect on our portrayal of the extent of DOD dual sourcing in fiscal year 1981. (See p. 4.)

Senator Pryor's office specified that only an overview of dual sourcing activity in civil agencies was desired. Accordingly, rather than perform on-site review and verification work at various civilian agency buying office locations, we requested the heads of the selected civil agencies to provide written responses to a brief set of questions about the extent and nature of their use of dual sourcing and matters that influence its use. The agency responses form the basis for our analysis of civil agency dual sourcing activity and perceptions.

As a first step toward our review of DOD dual sourcing activity, Army, Navy, and Air Force headquarters procurement officials identified fiscal year 1981 contract actions by their respective buying offices that they believed met our dual source and universe criteria. Subsequent preliminary screening and review of the information with the headquarters officials showed that some identified contracts did not meet the criteria and they were deleted.

From the screened remainder, we selected a high dollar value sample of 55 items representing 28 percent of the contracts and amounting to 89 percent of the remaining total dollar value of fiscal year 1981 dual source contract actions reported by each of the military services. Since our screening process was capable of spotting only the more obvious cases of misidentification, we subjected the DOD sample items to on-site review and verification. The dollar value of the contract actions meeting our criteria was then compared to the total dollar value of all fiscal year 1981 DOD contract actions within our specially configured major hard goods universe to derive an indication of the magnitude of DOD dual sourcing activity.

The 55 high dollar value items selected for inclusion in our sample, in turn, required on-site reviews at the following buying offices which were responsible for the contracts.

Army:

- Communications and Electronics Command, Fort Monmouth, New Jersey.
- Armament Research and Development Command, Dover, New Jersey.

--Electronics Research and Development Command, Fort Monmouth, New Jersey.

--Armament Materiel Readiness Command, Rock Island Arsenal, Illinois.

Navy:

--Naval Air Systems Command, Crystal City, Virginia.

--Naval Sea Systems Command, Crystal City, Virginia.

--Strategic Systems Project Office, Crystal City, Virginia.

Air Force:

--Aeronautical Systems Division, Air Force Systems Command, Wright-Patterson Air Force Base, Dayton, Ohio.

--Warner Robins Air Logistics Center, Warner Robins, Georgia.

At these buying offices, we examined the sample item contracts and contract files and interviewed responsible program/project managers, contracting officers, and other cognizant procurement officials to verify that the contracts met our dual sourcing and universe criteria. We also interviewed these personnel to obtain their views and perceptions and other information related to the various dual sourcing issues raised in Senator Pryor's request.

In addition, we obtained further information and views on dual sourcing from procurement officials in the Office of the Under Secretary of Defense, Research and Engineering; the Procurement and Production Directorate, DARCOM Headquarters; the Office of the Assistant Deputy Chief for Contracts and Business Management, NAVMAT Headquarters; and the Office of the Directorate of Contracting and Manufacturing Policy, Air Force Headquarters. We also reviewed the DOD and civil agency procurement statutes and procurement regulations, as well as various documents and published studies, concerning dual sourcing. As agreed with the Senator's office, we did not conduct on-site reviews of dual sourcing activity at contractors' plants.

Subject to the limitations discussed previously, resulting in a large part from the lack of an established dual source data base, this review was performed in accordance with generally accepted government auditing standards.

CIVIL AGENCY DUAL SOURCINGIN FISCAL YEAR 1981

The six agencies included in our study of civil agency production dual sourcing were the Departments of Agriculture, Energy, and Transportation and the General Services, Veterans, and National Aeronautics and Space Administrations (NASA). They accounted for \$3.26 billion, or about 75 percent, of the \$4.326 billion all inclusive total of fiscal year 1981 obligations over \$10,000, by all methods of contracting with all types of businesses, for supplies and equipment production by all of the civil agencies reporting through the Federal Procurement Data System. The responses we received to our inquiries through the heads of the six agencies showed that only NASA could identify any fiscal year 1981 contract actions that met our definitive dual source and supplies and equipment universe criteria.

NASA identified two items involving fiscal year 1981 obligations in the total amount of \$658,200 which it said conformed to the criteria. This represents about 0.2 percent of NASA's \$332.4 million fiscal year 1981 supplies and equipment production universe, based upon the post selection universe exclusions identified below for all six agencies. In addition, this amount comprises the total for all six agencies and equates to about 0.04 percent of the ultimate narrowed fiscal year 1981 \$1.776 billion six-agency supply and equipment universe, excluding formally advertised and educational/nonprofit institution contract actions and contract actions performed by other than U.S. firms in the U.S.

The action taken on both items dual sourced by NASA resulted from failure of the sole-source contractor to deliver. For one of the items, the low price supplier's unit price was about 42 percent less than the high price supplier's and the low price supplier received 4,000 of the total of 6,000 units awarded. The unit prices of the two suppliers for the other item varied by less than 2 percent, and a total quantity of 300 units was divided equally between them.

In addition to NASA, only the Department of Energy had ever dual sourced supplies and equipment and both NASA and Energy said they seldom do it. Consequently, none of the six agencies had developed official policy or guidance for dual sourcing. Furthermore, three of the six believed they were prohibited from dual sourcing for the purpose of price competition. Five of the six said they have never required their prime contractors to dual source their subcontracts. The single agency to have imposed such a requirement said it was seldom done.

NASA said dual sourcing is an appropriate means of procuring items in large quantities, but further stated the open

competitive process remains the most effective means of reducing supply and equipment prices. Although two other agencies said they would favor the use of dual sourcing in procurements involving large production quantities, both they and NASA stated their production requirements were typically low. The other three agencies could see no need for dual sourcing, since they procured commercial type products readily available from competitive market sources. We believe it unlikely these characteristics of the six agencies' procurements will change enough to cause a significant increase in their use of dual sourcing.

RANK ORDER LISTING OF PERCENTAGE DIFFERENCE BETWEEN
HIGH AND LOW PRICES FOR 27 DUAL SOURCED ITEMS

<u>Nomenclature</u>	<u>Percent difference in price</u>
Trident Inertial Measurement Units (Navy) ¹	0.00
M577 Fuze MT (Army)	0.12
Los Angeles Class Submarine-SSN688 (Navy)	2.81
DSU 15-A/B Target Detectors (Navy)	3.49
Laser Range Finder, AN/VVG-2 (Army)	6.55
ACES II Ejection Seats (Air Force)	9.35
GAU-8 30mm Ammunition (Air Force)	9.36
M42/46 Grenade Bodies (Army)	10.26
FFG-7 Perry Class Frigates (Navy)	12.03
Solid State Computers, M21 (Army)	12.37
Night Vision Goggles, AN/PVS-5A (Army)	12.54
Trident MK-5 Guidance Monitor Component Assy. (Navy) ¹	12.95
Trident MK-5 Electronics Assemblies (Navy) ¹	15.24
Trident MK-5 Multiple Layer Board Sets (Navy) ¹	17.63
Sidewinder MK36 Mod 7 Rocket Motors (Navy)	18.42
PP-7382/TAS Battery Charger (Army)	18.85
Trident MK-5 Monitor IMU Electronic A Sets (Navy) ¹	19.57
Trident MK-5 Tray A's (Navy) ¹	20.05
F-16 Fwd & Aft Canopy Transparencies (Air Force)	23.00
M483A1 Metal Parts for 155mm Projectile (Army)	25.40
Image Intensifier Assembly (Army)	28.70
AN/UAS-12 Tow Night Sight Equipment Set (Army)	28.93
AN/TAM-3 Equipment Test Set (Army)	29.29
AN/UAS-11 NODLR Equipment Set M113 APC (Army)	29.41
GAU-8/A Gun Barrel Set-30mm (Air Force)	30.27
SU-108/TAS Basic Sight Assembly Equipment Set (Army)	32.78
Trident MK-5 Inertial Measurement Unit- Electronics (Navy) ¹	32.83
Simple arithmetic average of price differences between high and low priced producers (27 items)	17.12%
Median	17.63%

¹These seven Trident missile components were purchased on two identical pairs of contracts. Since the Strategic Systems Project Office compared only total contract prices, not the prices of individual components, and overall the higher priced contracts averaged only 1.25 percent more than the lower priced contracts, percent differences in unit prices for these items should be used with caution.

RANK ORDER LISTING OF PERCENTAGE DIFFERENCE BETWEEN
HIGH AND LOW PRICES FOR 12 ARMY DUAL SOURCED ITEMS

<u>Nomenclature</u>	<u>Percent difference in price</u>
M577 Fuze Mt	0.12
Laser Range Finder, AN/VVG-2	6.55
M42/46 Grenade Bodies	10.26
Solid State Computers, M21	12.37
Night Vision Goggles, AN/PVS-5A	12.54
PP-7382/TAS Battery Charger	18.85
M483A1 Metal Parts for 155mm Projectile	25.40
Image Intensifier Assembly	28.70
AN/UAS-12 Tow Night Sight Equipment Set	28.93
AN/TAM-3 Equipment Test Set	29.29
AN/UAS-11 NODLR Equipment Set M113 APC	29.41
SU-108/TAS Basic Sight Assembly Equipment Set	32.78

Army average difference
between high and low
priced producers = 19.6%

RANK ORDER LISTING OF PERCENTAGE DIFFERENCE BETWEEN
HIGH AND LOW PRICES FOR FOUR AIR FORCE DUAL SOURCED ITEMS

<u>Nomenclature</u>	<u>Percent difference in price</u>
ACES II Ejection Seats	9.35
GAU-8 30mm Ammunition	9.36
F-16 Fwd & Aft Canopy Transparencies	23.00
GAU-8/A Gun Barrel Set-30mm	30.27

Air Force average difference between
high and low priced producers = 18.0%

RANK ORDER LISTING OF PERCENTAGE DIFFERENCE BETWEEN
HIGH AND LOW PRICES FOR 11 NAVY DUAL SOURCED ITEMS

<u>Nomenclature</u>	<u>Percent difference in price</u>
Trident Inertial Measurement Units	0.00
Los Angeles Class Submarine-SSN688	2.81
DSU 15-A/B Target Detectors	3.49
FFG-7 Perry Class Frigates	12.03
Trident MK-5 Guidance Monitor Component Assembly	12.95
Trident MK-5 Electronics Assemblies	15.24
Trident MK-5 Multiple Layer Board Sets	17.63
Sidewinder MK36 Mod 7 Rocket Motors	18.42
Trident MK-5 Monitor IMU Electronic A Sets	19.57
Trident MK-5 Tray A's	20.05
Trident MK-5 Inertial Measurement Units- Electronics	32.83

Navy average difference between
high and low priced producers = 14.1%

APPENDIX VII

DAVID PRYOR
ARKANSAS

248 RUSSELL SENATE OFFICE BUILDING
WASHINGTON, D.C. 20510
(202) 224-2331

ARKANSAS OFFICE:
3030 FEDERAL BUILDING
LITTLE ROCK, ARKANSAS 72201
(501) 378-6336

United States Senate
WASHINGTON, D.C. 20510

APPENDIX VII

COMMITTEES:
AGRICULTURE, NUTRITION, AND
FORESTRY
GOVERNMENTAL AFFAIRS
SPECIAL COMMITTEE ON AGING
SELECT COMMITTEE ON ETHICS

January 19, 1982

The Honorable Charles A. Bowsher
Comptroller General of the United States
Washington, D. C. 20548

Dear Mr. Bowsher:

This letter is to request a General Accounting Office study of dual sourcing, a method of obtaining competition in Federal procurement.

As you know, the Committee on Governmental Affairs recently completed a series of hearings on the defense acquisition process and certain Department of Defense initiatives to make that process more efficient. Our hearings clearly showed that despite the DOD initiatives, defense procurement relies excessively on sole-source contracting and lacks effective competition. This condition greatly contributes to rapid escalation and large overruns in the costs of defense programs.

Today more than half of all Federal procurement dollars are awarded on a sole-source basis, even though government policy is to obtain competition whenever it is feasible and practical. Several studies, including those cited in a recent GAO report (PLRD-81-45), have shown that competition results in significant cost savings. At our recent hearings, dual sourcing was recommended as a way to obtain increased competition. Under this method annual buys of a given product or service are split between two contractors rather than awarded entirely to a sole source.

The hearings record indicates that DOD, and undoubtedly the civilian agencies as well, are missing competitive opportunities by not taking advantage of dual-source procurement. Consequently, I am requesting that GAO examine agency uses of dual sourcing, the advantages and drawbacks of the method, any barriers precluding or constraining its applications, and the legislative or other actions needed to assure its implementation where appropriate. Specific issues which the GAO study should address include:

The Honorable Charles A. Bowsher
January 19, 1982
Page Two

1. Current DOD and civilian agency policies or regulations on dual-source procurement, including (a) whether or not specific guidance is provided to contracting officers and program personnel with regard to the circumstances under which dual sourcing should be evaluated as an acquisition strategy and the factors that should be considered in such evaluation, and (b) whether the government requires its prime contractors to evaluate or apply dual sourcing in awarding their subcontracts.

2. The extent to which dual sourcing is either encouraged or discouraged (a) by the Armed Services Procurement Act of 1947, the Federal Property and Administrative Services Act of 1949, or other Federal procurement statutes, and (b) by current procurement processes, including budgeting, funding, and planning procedures.

3. The extent to which the government is using dual-source procurement in relation to its total procurement spending, and the availability of such information from Federal procurement data bases.

4. Examples of procurements in which dual sourcing (a) was used successfully, and the estimated savings attributable to its use; (b) was used but was not cost-effective, and the reasons for ineffectiveness; (c) was considered advantageous but was not implemented, and the reasons for non-implementation; and (d) might have been beneficial but was never considered, and the reasons for lack of consideration.

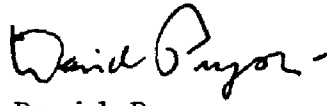
Based on the Committee hearings and related sources, my staff prepared the attached paper which describes the rationale of dual sourcing, summarizes certain empirical work on the method's competitive and other beneficial effects, and identifies some potential constraints on its implementation. This paper should be useful to your office in planning its study. To discuss the approach, scope, and timing of the GAO study, please contact Doug McDaniel of my office on 224-4551.

The Honorable Charles A. Bowsher
January 19, 1982
Page Three

I certainly realize that a review of this type will take considerable time to complete. I would, however, appreciate your scheduling this work in a way that would provide for a briefing in April in order that the information could be used in the authorization and appropriation process.

I appreciate your prompt attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "David Pryor". The signature is written in dark ink and is positioned above the printed name.

David Pryor

DP/kwj
Attachment



RESEARCH AND
ENGINEERING

(AM)

THE UNDER SECRETARY OF DEFENSE

WASHINGTON D.C. 20301

8 DEC 1983

Mr. Frank C. Conahan
Director, National Security and
International Affairs Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Conahan:

This is the Department of Defense response to your Draft Report, "Dual Sourcing Solely for Production Price Competition:--Not Clearly Authorized-- Needs Better Demonstration of Cost Effectiveness," Dated October 3, 1983 (GAO Code No. 942132) - OSD Case No. 6369.¹

Generally, DoD finds that the report has taken a realistic view toward the application of dual sourcing production efforts for the sole purpose of price competition. The report recognizes the need to include all costs to the Government for establishing and maintaining an additional source in determining the cost effectiveness of the competitive dual source technique. Further, the report has recognized that good empirical data is not available to substantiate various advocacy positions that may have over emphasized this technique as a cost saver.

The report has taken two positions, however, that DoD does not agree are practical. It is not practical to conduct further tests of the dual sourcing technique before the Armed Services Procurement Act (ASPA) is amended to authorize dual sourcing solely for the purpose of conducting a price competition. Since the report recognizes the need for clearer authority it would not be prudent for DoD to act without this clarification and run the potential risk of having the basis for excluding the incumbent source in the competition argued in the courts. The other position DoD does not agree with deals with the need, at this time, to formulate additional DoD policy and guidance relative to using the competitive dual source technique in production programs. As mentioned above, when the authority to pursue this technique purely for price competition is approved, it will then be appropriate to set forth additional DoD policy and guidance. (See GAO note 1, p. 50.)

The Department also wishes to highlight its concern with the report on pages 10 and 11. (See GAO note 2, p. 50.)

The DoD Office of General Counsel has never taken the position that an exception (10) may be appropriate to authorize dual sourcing beyond the limits of exception (16), and it is not aware of the basis for this statement. Further, as an additional matter,

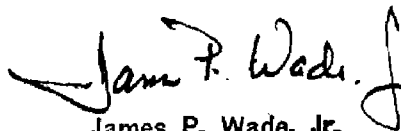
pages 10 and 11 of the report seem to suggest that the GAO is of the opinion that an exception (10) could be utilized to establish a second source if the ultimate purpose was to obtain competition. If the GAO has not reached this conclusion this sentence could lead to a significant

misunderstanding within the acquisition community. DoD has examined the issue, concluded that legislation is required and has initiated action to obtain the necessary statutory change.

There are two other points the Department would like to address that cover policy/guidance and the relationship of figures used in the report. We believe the report should recognize that the competitive dual source technique is a subset of competition and therefore attention needs to be given to the special emphasis that DoD has placed on competition over the last two and one-half years. The most significant documentation which has provided this emphasis is identified in the detailed comments. The second concern is with the relationship of figures used in the report. Out of a universe of \$41.47B of production efforts, only 4.4 to 5.1 percent represents dual sourcing. To avert an incorrect perception it is suggested a qualifier to the effect that not all of the programs represented by the \$41.47B may, in fact, provide an opportunity for the application of the competitive dual source technique.

In summation, DoD found that the report reflects the practicalities of applying the competitive dual source technique and endorses a reasonable pace for the use of this technique which we are currently practicing and will continue to follow. Detailed comments on the report's findings are attached.

Sincerely,


James P. Wade, Jr.
Acting

Attachment
a/s

**GAO DRAFT REPORT - DATED OCTOBER 3, 1983
(GAO CODE NO. 9421320) - OSD CASE NO. 6369**

***DUAL SOURCING SOLELY FOR PRODUCTION PRICE COMPETITION:--
NOT CLEARLY AUTHORIZED--NEEDS BETTER DEMONSTRATION OF
COST EFFECTIVENESS***

DEPARTMENT OF DEFENSE COMMENTS

FINDINGS

- o **FINDING A: Dual Sourcing Appears to Constitute a Small Portion of DoD's Major Hardgoods Procurement.** GAO found that dual sourcing constitutes from 4.4 percent to 5.1 percent of the approximate \$41.47 billion total value of all Army, Navy and Air Force FY 1981 contract actions within a limited major hardgoods universe. GAO further found that (1) the Navy expended the highest percentage of its major hardgoods production dollars through dual source procurement; the Air Force expended the least and (2) the characteristics of dual source procurement varied as did the duration of dual source procurement with the source of its use. GAO concluded that, since there is no reliable, regularly maintained data base system capable of correctly identifying items which are actually concurrently produced by dual sources, a confident determination of the extent of DoD's use of dual sourcing is impractical. GAO further concluded that the methods used provide only a general indication of dual source concurrent production activity. (pp. 2-7, 9, 22, and 30 GAO Report)

Comments: Concur. However, GAO has incorrectly indicated that the total dollar value of FY 1981 contract actions, \$41.47B in their special universe (pp. 3, 4, 25, 26, and 30-32) are primarily sole source production efforts. Actually this data does include competition data and should not be part of the special universe. The Department would not consider applying dual sourcing in any existing programs that have competition. Further, in the interest of putting the proper perspective on the relationship between the 4.4 to 5.1 percent of dual sourcing relative to the (corrected) special universe figure, Department of Defense (DoD) suggests a qualifier to the effect that not all of the programs in the corrected universe figure may provide an opportunity for the application of the dual source competition technique.

- o **FINDING B: Dual Sourcing was not Employed Solely or Primarily for the Purpose of Price Competition** GAO found that DoD buying offices measured the success of dual source procurement mainly by how well the procurement actions

achieved the principal goal of supporting national defense and industrial mobilization base interests. GAO further found that (1) price competition was cited as a secondary objective in connection with the dual sourcing of only seven of the sampled 55 DoD items and (2) even though price competition was not the primary objective of DoD dual sourcing in FY 81 that incentive was present to variable degrees, in the dual sourcing of 17 of the 27 DoD sample items. GAO concluded that the most often utilized incentive for price competition, through dual sourcing, is created when distribution of the award is made a function of the relationship of prices between the dual or multiple suppliers and realistic goals for price competition are as appropriate as objectives similarly established for weapons performance and delivery. GAO further concluded that award of production quantity or a higher percentage of profit to a low price supplier can provide some incentive for production price competition and with second sources, time can overcome the competitive advantage of experienced suppliers. (pp. 5, 24, 26, and 27 GAO Report)

Comments: Concur. However, DoD does not believe it is practical nor realistic to forecast goals for the specialized application of establishing dual sourcing of weapon systems. The management decision to incur a sizable upfront investment to introduce a dual production source should not be influenced by the achievement of procurement goals. Therefore, in DoD's view it is inappropriate to establish dual source goals or include dual sourcing as a contributing element to the potential establishment of price competition goals.

- o **Finding C: Existing Statutes do not Clearly Authorize Production Dual Sourcing Solely or Primarily for Price Competition.** GAO found that, although the Armed Services Procurement Act (ASPA) of 1947 authorizes the use of production of dual sourcing in the interest of national defense and industrial mobilization, it does not authorize dual sourcing for the principal purpose of creating production price competition. GAO further found that the perceived limitation of authorization under existing statutes to be one of the most important factors bearing on the use of dual source procurement as a production cost reduction strategy, although current attention to this method of procurement stems from its potential for price competition and cost reduction. GAO concluded that dual sourcing cost reduction effectiveness should be better demonstrated in advance of any ASPA amendment to expressly authorize its use solely for cost reduction purposes and agreed that dual source competition is a complex matter requiring thorough analysis to be cost effective. GAO further concluded this might best be accomplished through joint DoD and Office of Federal Procurement Policy (OFPP) retrospective analyses or experimental operational testing. (pp. 1, 5, 10-12, 22, 24, and 25 GAO Report.)

Comments: Partially Concur. DoD does not concur that dual sourcing cost reduction effectiveness should be determined in advance of any Armed Services Procurement Act (ASPA) amendment. GAO does recognize the need for an amendment to clearly authorize the expanded use of the dual source procurement technique. Therefore, the Department contends that it requires the proper authority before it can take full advantage of the dual source competitive technique. To do otherwise would run the risk of possibly delaying programs while the basis for excluding the incumbent source was argued in the courts. Further, DoD does not agree that there is a need for a joint DoD and Office of Federal Procurement Policy (OFPP) analyses of the effectiveness of the dual sourcing technique either through a retrospective analyses or an experimental operational testing. A retrospective analyses would require a review of past programs where (as the report indicated) price competition was considered a secondary factor and may not provide the proper relationship. Further, there is no common basis for accurately assessing the projected benefits of an acquisition strategy that is never implemented. Both of these problems would tend to reduce the value of any resulting analyses and cause further controversy about the cost reduction aspects of dual sourcing production programs.

The Department also wishes to highlight its concern with the report on pages 10 and 11.

The DoD Office of General Counsel has never taken the position that an exception (10) may be appropriate to authorize dual sourcing beyond the limits of exception (16), and it is not aware of the basis for this statement. Further, as an additional matter, pages 10-12 of the report seem to suggest that the GAO is of the opinion that an exception (10) could be utilized to establish a second source if the ultimate purpose was to obtain competition. If the GAO has not reached this conclusion this could lead to a significant misunderstanding within the acquisition community. DoD has examined the issue, concluded that legislation is required and has initiated action to obtain the necessary statutory change.

- o **FINDING D: Dual Sourcing Does not have Adequate Official DoD Policy and Guidance.** GAO found very little in the way of official DoD or individual Service policy or guidance pertaining specifically to dual sourcing. GAO further found that Service and buying office procurement officials were unaware of any official DoD policy and guidance in connection with using dual sources for price competitive production. GAO concluded that DoD needs to provide the military Services clear, official uniform policy and guidance on the use of dual sourcing, either principally or secondarily for cost reduction. GAO further concluded such policy and guidance could be developed by DoD and OFPP based on insights gained

through the evaluative/testing effort. (pp. 12-15, 25, and 26
GAO Report)

Comments: Partially Concur. DoD concurs that specific guidance has not been issued on dual sourcing. Specific guidance on the application of dual sourcing can not be disseminated until the Department has received the amended authority to authorize the exclusion of the incumbent source in the application of a dual source price competition strategy. Further, the Office of the Secretary of Defense (OSD) Cost Analysis Improvement Group (CAIG) is currently in the process of developing the methodology (including the identification of the elements of cost) to be used in performing a cost/benefit analysis for dual source applications. The Department will publish the appropriate guidelines relative to the cost/benefit analysis methodology.

DoD, however, does not concur with the inference that there has been little or no guidance. The report fails to recognize that dual sourcing is a subset of competition. Competition has received significant attention during the last two years including considering competition in the production phase which is accomplished through the use of the dual sourcing technique.

Examples of documentation that reflects guidance and special emphasis placed on all aspects of competition are:

1. Deputy Secretary of Defense letter of July 27, 1981, subject: "Increasing Competition in the Acquisition Process."
 - a. Department of Defense Acquisition Improvement Task Force report, December 23, 1981.
2. USDR&E letter of November 10, 1981, subject: "Increasing Competition in the Acquisition Process."
 - a. DUSDR&E-AM letter of June 8, 1982, subject: "Increasing Competition in the Acquisition Process."
3. USDR&E letter of June 29, 1982, subject: "Second Sourcing of Major Weapon Systems."
 - a. USDR&E letter of December 21, 1982, subject: "Second Sourcing of Major Weapon Systems."
4. SecDef letter of September 9, 1982, subject: "Competitive Procurement."
5. DepSecDef letter of June 8, 1983, subject: "Guidance on the Acquisition Improvement Program (AIP)."

6. Revision of DoDD 5000.1, March 29, 1982, and DoDI 5000.2, March 8, 1983.

- o **FINDING E: There is Insufficient Evidence to Permit a Conclusion Regarding the Actual Net Financial Gain or Loss Realized Through Dual Source Competition.** GAO found insufficient evidence to conclude that dual sourcing yields a net reduction in overall cost, when all costs for establishing and maintaining a second source have been considered. GAO further found that although cost savings was the most frequently cited potential benefit of dual sourcing, (1) only one Air Force buying office could provide evidence of a cost/benefit analysis having been made which showed costs might actually increase, and (2) buying offices explained that since the items were dual sourced primarily in the overriding interest of national defense or industrial mobilization concerns, price was a secondary factor and cost/benefit analyses were not necessary. GAO concluded that dual sourcing can be truly effective only in those procurements where the product price reduction which may be achieved through dual source competition exceeds the total of all costs to the government for establishing and maintaining the additional source(s). GAO further concluded that if dual sourcing were to be employed solely or primarily for the purpose of achieving cost savings through production competition, cost/benefit analysis prior to a dual sourcing decision and commitment is essential as dual sourcing's effectiveness as a production cost reduction strategy has yet to be demonstrated by actual experience. (pp. 16, 19, 20, and 22-24, GAO Report)

Comments: Concur.

RECOMMENDATIONS

None

Technical Changes to GAO Draft Report (OSD Case # 6369)

1. Pages 7 and 8: The report indicates that 1,592 Sidewinder missile target detectors were purchased with an average unit price of \$5,912. In FY81, 4,696 Sidewinder missile target detectors were procured (2,348 target detectors from each contractor) with an average unit price of \$6,017.

2. Page 10 and 11: The DoD Office of General Counsel has never taken the position that an exception (10) may be appropriate to authorize dual sourcing beyond the limits of exception (16) and does not know the basis for this statement. It is incorrect and should be deleted.

3. Page 13: Correct to reflect the Director of Contract Policy Vice Contract Placement and Administration.

GAO note 1: Because of the enactment of Public Law 98-369, these two issues are moot, and we have eliminated these points from this final report.

2: Page references in DOD's comments on the draft report have been changed to correspond to page numbers in the final report.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

OFFICE OF FEDERAL
PROCUREMENT
POLICY

NOV 3 1983

Mr. William J. Anderson
Director
General Government Division
General Accounting Office
Washington, DC 20548

Dear Mr. Anderson:


This in response to your letter of October 3, 1983, which requested comments on the GAO draft report entitled, "Dual Sourcing Solely for Production Price Competition: - Not Clearly Authorized - Needs Better Demonstration of Cost Effectiveness." I am responding on behalf of Mr. Stockman because OFPP acts as the lead Office within the OMB with respect to procurement policy and the Administration's efforts to limit noncompetitive procurement practices and increase competition.¹

We agree that dual sourcing is not a panacea for increasing competition. It is only one of a variety of tools (Technical Data Packages, Leader/Follower, Teaming, Component Breakout) which are employed, depending on the particular circumstances of a given requirement, to foster competition in a market where the forces which inherently support competition do not exist. We also agree that guidance is necessary on when, how and which of these tools to use. Such guidance must of necessity be broad, however, because of the impossibility of anticipating all the circumstances and considerations which might be present in any given program.

We do not agree that further specific "experimental operational tests" are required as a pre-condition to any statutory amendment to expressly authorize dual sourcing solely for cost reduction purposes. Neither do we agree that there has been a clearly demonstrated legal requirement for such a statutory amendment. However, we do agree that clarification of the statutes is desirable if the use of dual sourcing is to be expanded.

We have enclosed more specific comments as they relate to specific sections of the draft report for your use. If you would like to discuss any of the comments, please call LeRoy Haugh on 395-6166 or Judy Hendrickson on 395-6810.

Sincerely,


Donald E. Sowle
Administrator

Enclosure

GAO note: Page references in these comments on the draft report have been changed to correspond to page numbers in the final report.

OFPP Comments
on
Draft GAO Report
on
Dual Sourcing Solely for
Production Price Competition (Code 942132)

<u>Page</u>	<u>Comment</u>
Cover	<p>The Report dwells on the fact that dual sourcing primarily or solely for purposes of cost reduction is not clearly authorized. An equally and perhaps more correct statement is that the Armed Services Procurement Act (ASPA) and the Federal Property and Administrative Services Act (FPASA) <u>do not clearly preclude</u> dual sourcing for the purpose of cost reduction.</p> <p>GAO has drawn a conclusion about dual sourcing as a cost reduction technique based on items that were dual sourced primarily for reasons other than cost reduction. The utility of the conclusions are, therefore, somewhat questionable.</p> <p>Further demonstration of dual sourcing as a cost reduction technique prior to statutory clarification seems superfluous so long as any statutory amendment is worded such that its use is limited to where it has been demonstrated that it will likely result in reduced overall costs.</p>
i and ii	<p style="text-align: center;">A more complete description is "... base to apportion quantities to two or more sources or to exclude ...".</p> <p style="text-align: center;">A better description would be "offices to develop a second source or maintain competitive sources by eliminating the otherwise competitive advantage of the more experienced source with respect to the excluded quantity. However, the Act does not specifically address use of a negotiation authority for the purpose of creating or maintaining dual sources solely or primarily for the purpose of production price competition. Civil ...".</p> <p style="text-align: center;">Substitute "equivalent to that of 2304(a)(16) as regards" for "to utilize". Add a new last sentence at the end of this paragraph as follows: "However, neither the ASPA or FPASA specifically preclude dual sourcing solely for the purpose of establishing price competition to achieve cost reduction."</p> <p style="text-align: center;">Add "specifically" after "circumstances".</p> <p>It may be desirable to clarify the statutes but we do not feel it has been demonstrated as legally necessary. We are not aware that dual source contracts awarded under other than 2304(a)(16) have been declared improper or illegal.</p>

Omit the phrase beginning with "Consistent with" and ending with "Procurement Act".

Disagree. See comments on cover page addressing this area.

1, and 10-12 Substitute "permit negotiation under" for "provide" and delete "to its use". Last sentence in paragraph 1 is not necessary.

1 Rephrase as follows: "formally advertised contracts presume the existence of price competition. Although competition is required to the maximum extent practicable with the negotiated method, awards are possible on a sole source basis. Furthermore, the competitive ...".

Substitute "lowest" for "the best".

3 Insert the following sentence at the end of the paragraph: "However, given the limited application of dual sourcing primarily for price competition, the cost of such a data base may not be justified."

10 and 11 Replace as follows: "... is not clear. Amending the statutes to clearly authorize dual sourcing primarily for price competition would probably help increase its use for such purposes."

Insert "specifically" between "the Act does not" and "authorize".

Insert "primarily" between "source procurement" and "as a production".

Delete. The statutory framework provides exceptions for negotiation. Dual sourcing is an acquisition technique; not a negotiation exception. Although limited, there are examples of dual sourcing under other than negotiation exception (16).

Rephrase as follows: "... is not available, the historical expectation in negotiated procurement under any of the exceptions other than (16), is that the award will go to the offeror whose offer is most advantageous to the Government in terms of ...".

Insert "neither does it preclude dual sourcing." After "sourcing". Begin new sentence with "Arguably". Add "under exception (10)" between "negotiated" and "with a second".

As was pointed out in the DOD/OFPP Competition Workshop, one of the barriers to competition is the historical bent with which we view competition. If we are to increase competition in a market inherently lacking the forces to support it we must expand our horizons as to what constitutes competition as well as to how to achieve it.

Rephrase as follows: "... believe that if the Congress wants agencies to increase their use of dual sourcing as a means of creating competition, the procurement statutes should be amended to clearly authorize dual sourcing for the purpose of creating competition and to ...".

Continue last sentence as follows: "... purposes where an overall reduction in the cost of the procurement or anticipated procurement is expected to result."

16

The context in which the DOD/OFPP Competition Workshop indicated "continued research and operational experimentation must be conducted" was with respect to identifying non-traditional techniques to achieve competition. The production marketplace examined by the Workshop (major systems) is such that the normal forces are lacking which inherently support competition. Therefore, to introduce competition in that marketplace requires expansion of our perspectives beyond the historical methods used to achieve competition. See comments on pages 10 and 11.

20

Was the average 10.8% savings the difference between high and low prices or representative of the overall (non-recurring and recurring) investment by the Government?

Insert "arbitrarily" between "not be" and "assigned" to properly reflect the context of this statement.

16

Substitute "sustain it and ensure" for "assure the achievement of its". The context of this statement was the market area where the normal forces which inherently support competition are lacking. To effect competition in this arena requires expansion of the perspective by which we have traditionally viewed competition. See comments on pages 10, 11, and 16 above.

- 26 The context of the statement in the DOD/OFPP Competition Workshop was not intended to indicate that goals for increasing competition were always or had to be arbitrary. The intent was simply to indicate that where they were arbitrary they would tend to frustrate rather than facilitate attainment of those goals.
- 22 GAO has misunderstood the context of the call for further research and experimentation.
 The intent was to highlight that where historical approaches to competition - formal advertising, technical data packages - have proven inadequate for a given product area other techniques need to be developed and tested when they are expected to result in beneficial competition.

 Change "competition exceeds" to "competition is expected to exceed". Dual sourcing cost/benefit analysis will always be prospective.
- 10 and 11 Insert "clearly" between "to be" and "authorize".
- 27 and 28 As previously discussed we do not agree that further demonstration is a necessary prerequisite for clarifying the statutes. We understand that there are several items undergoing dual source development as part of the full scale engineering development phase which will provide more data on the cost/benefit of dual sourcing. We also understand that DOD is working to develop a standard list of elements to determine the investment cost of systems whether dual sourced or not. Such a standard should help in conducting the cost/benefit analysis which should be a prerequisite to dual sourcing for price competition.



DEPARTMENT OF AGRICULTURE
OFFICE OF ASSISTANT SECRETARY FOR ADMINISTRATION
WASHINGTON, D.C. 20250

Mr. J. Dexter Peach
Director
Resources, Community, and
Economic Development Division
General Accounting Office
Washington, DC 20548

Dear Mr. Peach:

By letter of October 3, 1983, you asked for our comments on a draft report on dual sourcing as a method to obtain competition for supply contracts (code 942132).

By letter of October 1, 1982, we provided Mr. John Rinko, GAO Project Director, the following comments on this subject:

"No agency of the Department of Agriculture is known to have employed dual sourcing on prime contracts for supplies. We do not perceive a need to apply dual sourcing, because our requirements are for standard, commercially available products, with or without minor modifications. Moreover, we cannot find a situation where dual sourcing is genuinely necessary in the public interest to avoid endangering life, property, or the orderly conduct of vital Departmental functions. Consequently, we have not developed official policy or guidelines covering dual sourcing in prime or subcontract agreements. Except in the case of partial set-asides for small business concerns (41 CFR 1-1.706-6), we believe that production dual sourcing is not permitted for reasons of price reduction or mobilization base/national defense.

In summation, we do not perceive a need for dual sourcing within this agency to achieve better product prices. Without an appropriate amendment to the Federal Property and Administrative Services Act and the implementing Federal Procurement Regulations, we believe that civilian agencies are barred from splitting contract awards, with the sole objective to obtain tentative price reductions."

Since the Department of Agriculture has no need for dual sourcing authority, we defer to the other Federal agencies who may have a need for such authority. Therefore, we would not object to a recommendation to the Congress to provide dual sourcing authority for those Federal Departments or agencies that may have a need for it.

Sincerely,


JOHN J. FRANKE, JR.
Assistant Secretary
for Administration



Department of Energy
Washington, D.C. 20585

OC 25 1983

Mr. J. Dexter Peach
Director, Resource, Community and
Economic Development Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Peach:

The Department of Energy (DOE) appreciates the opportunity to review and comment on the GAO draft report entitled: "Dual Sourcing Solely for Production Price Competition: -- Not Clearly Authorized -- Needs Better Demonstration of Cost Effectiveness." DOE believes that dual sourcing properly applied in the appropriate circumstances can be an effective incentive to some second sources to overcome the competitive advantage of original or more experienced suppliers. However, the additional costs involved in establishing and maintaining an additional source may never be recouped by actual financial gains in connection with dual source production procurements.

DOE has no comments regarding the findings and recommendations contained in the draft report, but appreciates the opportunity to review the draft report.

Sincerely,

A handwritten signature in cursive script, appearing to read "Martha O. Hesse".

Martha O. Hesse
Assistant Secretary
Management and Administration

Office of the
Administrator
of Veterans Affairs

Washington DC 20420



NOVEMBER 2 1983

Mr. Richard L. Fogel
Director, Human Resources Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Fogel:

Your October 3, 1983 draft report "Dual Sourcing Solely for Production Price Competition: --Not Clearly Authorized--Needs Better Demonstration of Cost Effectiveness" has been reviewed and I concur in its content. It is noted that the previous comments from the Veterans Administration's Office of Procurement and Supply to the GAO Project Director have been incorporated in the report.

Sincerely,

A handwritten signature in cursive script that reads "Harry N. Walters".

HARRY N. WALTERS
Administrator



National Aeronautics and
Space Administration

Washington, D.C.
20546

Reply to Attn of: NSM-23

NOV 2 1988

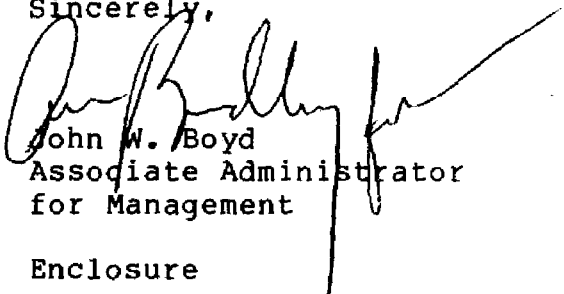
Mr. Frank C. Conahan
Director
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

Enclosed is the NASA response to the GAO draft report entitled,
"Dual Sourcing Solely for Production Price Competition: -- Not
Clearly Authorized -- Needs Better Demonstration of Cost
Effectiveness" (Code 942132).¹

If there are further questions about this submission, please
contact Mr. Richard G. Mulligan, NASA GAO Liaison at 755-8076.

Sincerely,



John W. Boyd
Associate Administrator
for Management

Enclosure

GAO note: Page references in these comments on the draft report
have been changed to correspond to page numbers in
the final report.

NASA Comments on the GAO Draft Report Entitled, "Dual Sourcing Solely for Production Price Competition: -- Not Clearly Authorized -- Needs Better Demonstration of Cost Effectiveness" (Code 942132)

1. Appendix II, page 34 should be revised as follows to reflect accurate data:
"For one of the items, the low price supplier's unit price was about 42 percent less than the high price supplier's and the low price supplier received 4,000 of the total of 6,000 units awarded."
2. Pages 34 and 35 erroneously states that NASA expressed the view that they would favor the use of dual sourcing in procurements involving large production quantities. The September 15, 1982, NASA response to the GAO questionnaire stated that "Dual sourcing is an appropriate means of procuring items produced in large quantities." Our response further stated that "The open competitive process remains the most effective means of reducing supply and equipment prices."



**U.S. Department of
Transportation**

Assistant Secretary
for Administration

400 Seventh St., S.W.
Washington, D.C. 20590

NOV 15 1983

Mr. J. Dexter Peach
Director, Resources, Community
and Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

The Department of Transportation (DOT) has reviewed your draft report, "Dual Sourcing Solely for Production Price Competition:--Not Clearly Authorized--Needs Better Demonstration of Cost Effectiveness," dated October 3, 1983. We have no specific comments on the report.

I know of no plans for DOT to use dual sourcing on any of our major programs. If you need additional information, please contact Roger C. Martino of the Office of Installations and Logistics on 426-4238.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Fairman".

Robert L. Fairman



General
Services
Administration

Washington, DC 20405

APPENDIX XV

DEC.13 1983

Honorable Charles A. Bowsher
Comptroller General of the United States
General Accounting Office
Washington, DC 20548

Dear Mr. Bowsher:

Thank you for the opportunity to comment on the draft General Accounting Office audit report entitled "Dual Sourcing Solely for Production Price Competition:--Not Clearly Authorized--Needs Better Demonstration of Cost Effectiveness" (Code 942132, October 3, 1983).

Our comments regarding the use of dual sourcing were provided during the study phase. As you are aware, the Federal Procurement Regulations (FPR) do not permit dual sourcing except in the case of partial small business set-asides (FPR 1-1.706-1).

Sincerely,

Ray Kline
Deputy Administrator

(942132)

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