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Comptroller General
of the United States
Washington, D.C. 20548

Decision

Matter of: Allied-Signal Inc.

File: B-247272

Date: May 21, 1992

Karen F. Botterud, Esq., for the protester.
Stephen S. Kaye, Esq., and J. Michael Cooper, Esq., Bryan, Cave, McPheeters & McRoberts, for Electronics and Space Corp., an interested party.
Nike Nihiser, Esq., and Joseph Goldstein, Esq., Department of the Air Force, for the agency.
Ralph O. White, Esq., and Christine S. Melody, Esq., Office of the General Counsel, GAO, participated in the preparation of the decision.

DIGEST

Protest against the award of a sole-source contract is denied where the agency relies on the authority of 10 U.S.C. § 2304(d)(1)(B) to award a contract and the agency's written justification and approval includes a detailed cost analysis providing ample support for the agency's conclusion that a competitive award to another source would likely result in substantial duplication of cost to the government that would not be recovered through competition.

DECISION

Allied-Signal Inc. protests the proposed sole-source award by the Department of the Air Force of a contract to Electronics & Space Corporation (ESCO) for 16 avionics testers to support testing of the avionics equipment used on aircraft associated with the Special Operations Forces. The Air Force justifies its sole-source award on the basis that only ESCO can provide the needed testers without substantial duplication of costs that will not be recovered through competition, and without unacceptable delays in fulfilling the requirements of the agency. Allied challenges both of these conclusions. In addition, Allied argues that the statutory authority claimed by the Air Force for limiting competition to only one source when there would be a substantial duplication of cost or unacceptable delay, see 10 U.S.C. § 2304(d)(1)(B) (1988), is not available here because ESCO is not a "follow-on contractor" as required by the statute.

We deny the protest.

BACKGROUND

The Special Operations Force (SOF) within the Air Force is being developed to deploy small groups of electronically sophisticated aircraft on covert missions, and to operate those aircraft for extended periods of time without access to routine maintenance channels. Currently, the SOF intends to use three types of fixed-wing aircraft for these missions--the AC-130U, the AC-130H, and the MC-130H.[1] To operate these aircraft covertly, at remote locations, and without access to routine maintenance, the Air Force has had to give special consideration to the logistics involved in maintaining the avionics equipment on the airplanes. This procurement involves an attempt by the SOF to ensure its ability to test avionics equipment onboard its aircraft.

The avionics equipment in SOF aircraft (such as radar, gyroscopes, and navigation computers) are housed separately in self-contained removable modules called line replaceable units (LRU). LRUs are designed to be easily replaceable because of the nature of the equipment they house--i.e., equipment that is highly complex, expensive, and relatively unreliable. LRUs often require repair or replacement, thus, as mentioned above, they pose a logistics challenge for SOF aircraft.

In an unrestricted situation, such aircraft might have access to a relatively unlimited number of spare LRUs that could be used to replace faulty devices. However, because of the nature of SOF missions, the aircraft have limits on the payload capacity and space that can be devoted to transporting a sufficient supply of LRUs to permit the technicians to be able to replace a faulty unit with a spare unit. Therefore, the Air Force has determined that it needs a single deployable version of the test equipment it currently uses in repair facilities to test the LRUs in these aircraft.

Although the Air Force is still assembling the aircraft for its SOF, and admits that many of the LRUs in these aircraft are still being developed, one of the most technically significant subsets of LRUs is already developed, as is the equipment to test those LRUs. Specifically, the MC-130H aircraft is using a radar device known as the APQ-170 radar.

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[1]The Air Force is still procuring the aircraft that will comprise its SOF fleet. Twelve AC-130U aircraft are scheduled for delivery between May 1992 and September 1993, with full operational capacity expected in the second quarter of 1995. Three AC-130H aircraft have been delivered and six more are expected by January 1994. Four MC-130H aircraft have been delivered and 19 more are due by December 1993.

ESCO (then known as Emerson Electric Company) developed equipment to test the APQ-170 radar on the MC-130H by adapting a device it currently produces to test LRUs on the F-15. ESCO performed this work for the Air Force's prime contractor on the MC-130H aircraft. The unmodified equipment is known as ESCO's Mobile Electronic Test Set (METS), while the equipment modified to test the APQ-170 radar is known as ESCO's Radio Frequency Mobile Electronic Test Set (RFMETS). Although ESCO first proposed this effort in late 1986, it apparently did not complete the development of its RFMETS equipment until October 1990, and initial deliveries occurred in September 1991.

ESCO's modified equipment was not developed, however, as a stand-alone tester. Rather, ESCO's RFMETS was assembled as part of an equipment configuration known as the APQ-170 radar's "hot mock-up." The "hot mock-up," as its name suggests, is a complete replication of the radar system in a shop where failed LRUs can be inserted into the system and diagnosed. The RFMETS is the central element in the "hot mock-up," and performs diagnostic checks to help isolate the failed component within the LRU, so that the component can be replaced. To date, the Air Force has purchased two RFMETS devices from ESCO, with four other devices in various stages of manufacture or delivery.

In June 1989, in anticipation of fielding the SOF capability, the Air Force determined that it needed one avionics tester to troubleshoot and repair all of the LRUs on the SOF aircraft. This determination, and the rationale for it, was set forth in an Air Force document entitled "Statement of Operational Need for SOF Common Tester." As part of this determination, the Air Force acknowledged that no manufacturer possessed existing off-the-shelf equipment that would meet the agency's needs, but stated that devices produced for other programs--such as ESCO's METS, and Allied's A-7 Corsair Avionics System Tester (CAST)--could be modified to meet the requirement. In addition, the Air Force proposed to hold a competition to select its future source for this equipment. As explained above, this finding was made at approximately the same time that ESCO was developing its RFMETS capability for testing the APQ-170 radar.

In May 1990, the prime weapons system contractor for the AC-130U attempted to designate Allied as the recommended manufacturer of the test equipment for the LRUs on the AC-130U. Several Air Force commands insisted that Allied should not provide this equipment, and decided instead, in September 1990, that ESCO's RFMETS would best meet the operational and technical needs for a common avionics tester for the SOF aircraft. The Air Force explains that it reached this conclusion because ESCO had already developed

an RFMETS capability while Allied had not; because Allied was behind in performance on its A7 CAST contract; and because the Air Force wanted to use only one type of device for testing the LRUs on its SOF aircraft.[2]

After this determination, the Air Force initially attempted to procure its current needs for the METS and RFMETS testers via a modification to an existing Department of the Navy Basic Ordering Agreement with ESCO. In April 1991, when Allied learned of this transaction, it filed a request for injunctive relief against the Air Force and the Navy in U.S. District Court in Delaware. As part of a settlement agreement resulting in the dismissal of the lawsuit, the Air Force agreed to purchase the testers via its own acquisition channels, thus permitting Allied to participate in that procurement or to challenge any decision to obtain ESCO's tester on a sole-source basis.

On June 4, 1991, the Air Force published in the Commerce Business Daily (CBD) a notice indicating the agency's intention to procure 20 RFMETS avionics testers. The CBD notice advised that its purpose was to perform a market survey of potential offerors who might possess the capability to manufacture ESCO's RFMETS device, or the functional equivalent of an RFMETS device. The notice acknowledged that the Air Force lacked reprocurement data for the RFMETS from ESCO.

Allied and 13 other potential offerors responded to the market survey notice in the CBD. After reviewing the responses to its market survey, the Air Force concluded that several of the potential offerors probably possess the capacity to manufacture an RFMETS device. However, since the Air Force was only willing to procure one type of tester, and had already received two RFMETS devices, with four more on the way; and since none of the potential offerors can provide an RFMETS device because the reprocurement data for the tester will not be available until April 1993, the Air Force concluded that only ESCO could meet its needs for the RFMETS.

On December 30, the Air Force issued a justification and approval (J&A) supporting the award of a sole-source contract for 16 METS and RFMETS testers to ESCO. The J&A concludes that a sole-source award to ESCO is justified under 10 U.S.C. § 2304(c)(1), which authorizes the use of other than competitive procedures when the items needed by the agency are available from only one responsible source,

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[2]The Air Force estimates that the number of different LRUs on the 3 SOF aircraft may total 45. Seven of these LRUs are part of the APQ-170 radar used on the MC-130H.

or from a limited number of responsible sources, and no other product will satisfy the agency's needs. This protest followed.

DISCUSSION

The overriding mandate of the Competition in Contracting Act (CICA) is for "full and open competition" in government procurements as obtained through the use of competitive procedures, 10 U.S.C. § 2304(a)(1)(A). As a result, this Office will closely scrutinize sole-source procurements conducted under the exception to that mandate authorized by 10 U.S.C. § 2304(c)(1). Test Sys. Assocs., Inc., B-244007.2, Oct. 24, 1991, 71 Comp. Gen. 33, 91-2 CPD ¶ 367, aff'd, B-244007.3, Mar. 17, 1992, 92-1 CPD ¶ 287; Sperry Marine, Inc., B-245654, Jan. 27, 1992, 92-1 CPD ¶ 111. Here, in addition to invoking 10 U.S.C. § 2304(c)(1), the Air Force relies on the grant of authority at FAR § 6.302-1(a)(2)(ii) that implements 10 U.S.C. § 2304(d)(1)(B).[3] This authority permits the procurement of follow-on goods or services on a noncompetitive basis from the original source where the agency determines that it is likely that: (1) award to another source would result in substantial duplication of cost to the government which would not be recovered through competition; or (2) where a competition would result in unacceptable delays in fulfilling the agency's needs.

When an agency uses noncompetitive procedures, it must execute a written J&A with sufficient facts and rationale to justify its conclusions. See FAR §§ 6.302-1(c); 6.303; 6.304. Our review of an agency's decision to conduct a sole-source procurement focuses on the adequacy of the rationale and conclusions set forth in the J&A. When the J&A sets forth reasonable justifications for the agency's actions, we will not object to the award. Turbo Mechanical, Inc., B-231807, Sept. 29, 1988, 88-2 CPD ¶ 299.

Here, the Air Force relies on 10 U.S.C. § 2304(d)(1)(B) as authority for its sole-source decision.[4] Accordingly, the

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[3]Although the Air Force does not cite the statutory authority of 10 U.S.C. § 2304(d)(1)(B) in its J&A, the cited FAR provision references and implements this statute.

[4]Underlying the sole-source decision is the Air Force's determination that the SOF needs a common deployable tester and cannot operate with multiple types of devices. As stated above, in mid-1989, the Air Force determined that it wanted only one tester for its SOF aircraft LRUs. This finding was committed to writing in the "Statement of Operational Need for SOF Common Tester." Allied does not

J&A must rationally support either of the following conclusions: that award to another source would result in substantial duplication of costs that will not be recovered in a competition; or that award to another source will result in unacceptable delays in fulfilling agency needs.

Applicability Of 10 U.S.C. § 2304(d)(1)(B) To This Procurement

Allied contends that the Air Force may not properly use the authority found at 10 U.S.C. § 2304(d)(1)(B) in this procurement. According to Allied, since ESCO has not yet held a contract with the Air Force to produce the METS or RFMETS--ESCO developed its RFMETS capability as a subcontractor to the MC-130U prime contractor--then ESCO is not a "follow-on contractor" as required by the statute.

Allied is correct in its assertion that the language in 10 U.S.C. § 2304(d)(1)(B) addresses ". . . a follow-on contract for the continued development or production of a major system or highly specialized equipment. . . ." In addition, Allied correctly points out that ESCO developed its RFMETS capability as a subcontractor to the prime contractor providing the aircraft. Therefore, Allied claims that ESCO cannot be considered a follow-on contractor, and the provisions of the statutory authority at section 2304(d)(1)(B) are not applicable to this procurement.

Allied's claims are unpersuasive. The fact that ESCO's contract was with the Air Force prime contractor and not the Air Force itself does not change the fact that ESCO has modified its METS device for the Air Force and has created a new device (the RFMETS) that can now be used to test the APQ-170 radar on the MC-130H. No other manufacturer has yet developed a device to test this equipment. In addition, the fact that ESCO is already committed to producing six of these devices and delivering them to the Air Force indicates that the kinds of duplicative costs and delays envisioned by the statute could well be incurred here. Therefore, we find that this authority was properly invoked by the Air Force--as long as the facts and conclusions used to make the findings required by the statute are otherwise reasonable.

Duplication Of Costs That Will Not Be Recovered By Competition

The J&A states that the Air Force has analyzed the costs incurred in producing and procuring the RFMETS from ESCO and identified between $13.5 million and $17.1 million in costs

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take issue with this determination and we see no reason to question it.

that will not be recovered through competition. In addition, the J&A references an attached detailed cost study that identifies costs, discussed in detail below, that the Air Force claims will be duplicated if another source produces a common tester for the SOF. In addition, the analysis attempts to ascertain whether these costs would be overcome by savings associated with competition. After calculating the costs of a sole-source procurement from ESCO, the analysis compares these costs with two competition scenarios--one where competition saves 30 percent of the sole-source cost; one where competition saves 10 percent of that cost. For our discussion, we will focus on the Air Force analysis using the 30 percent savings assumption.

The Air Force estimates the total cost of a sole-source purchase of this equipment to be $17.5 million.[5] The assumption in its analysis that competition will save 30 percent of the sole-source cost led it to conclude that it would be able to obtain a competitively procured tester for $12.2 million. Therefore, the result of the Air Force's approach is to conclude that if it must incur more than $5.3 million in duplicated costs to procure the tester competitively, it is permitted by statute to award a sole-source contract to ESCO.[6]

The Air Force analysis identified a total of four cost areas. These are: (1) the cost of procuring the data rights for a new tester since the Air Force purchased such rights from ESCO; (2) the cost of rehosting the new tester on the "hot mock-up" since the Air Force wants common test equipment; (3) the additional cost of procuring test program sets to connect with the APQ-170 radar; and (4) three types of support equipment and maintenance costs associated with

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[5]The J&A estimates the sole-source price of the METS device at approximately $1 million, and the RFMETS device at approximately $1.5 million.

[6]In fact, the cost savings associated with a competition here are even greater than the $5.3 million calculated by the Air Force. As discussed in greater detail below, in its cost analysis, appended to its J&A, the Air Force calculates the lifetime maintenance costs of this equipment as a percentage of the initial hardware cost. Since the initial hardware cost is estimated at approximately 30 percent less with competition, the associated lifetime maintenance costs for a competitively procured tester are lower than for ESCO's device. This difference in cost represents an additional savings as a result of competition.

procuring a second test device.[7] We have reviewed the assumptions and choices underlying the Air Force's finding that award to another source would entail substantial duplication of costs in these areas, and we find that the Air Force's conclusions are reasonable.

Rehosting a new tester on the "hot mock-up"

The largest cost item in the Air Force analysis is the cost of rehosting new test equipment on the "hot mock-up." This cost was estimated by an Air Force engineer to involve redoing 40 to 50 percent of the original development work on the "hot mock-up." Since the Air Force claims that it has spent $34.5 million on nonrecurring development effort in this area, it calculates that approximately 45 percent of that amount, or $16.2 million in constant fiscal year 1991 dollars, will be duplicated to rehost another tester.

There are a number of assumptions underlying the Air Force's conclusion that such a rehosting would be necessary, several of which were challenged by Allied. As a starting point, the Air Force anticipates that four of the six RFMETS it will receive from ESCO will serve double-duty--i.e., when needed to meet peak requirements the Air Force will pull the four RFMETS devices from the "hot mock-up" and deploy them with SOF aircraft.[8] When the peak is over, the RFMETS devices would be returned to their places in the "hot mock-up."

In its challenge to the cost analysis, Allied contends it is not reasonable to calculate the cost of rehosting a new

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[7]The three support equipment and maintenance costs estimated by the Air Force fall into two categories. The largest of these items--support equipment maintenance--is not actually a duplicative cost. Instead, this cost item is simply different for the sole-source purchase than it is under the competition scenario. Specifically, since the maintenance costs are calculated as a fixed annual percentage of the purchase price, these costs are actually lower as a result of a competition. Accordingly, as mentioned above, we consider these costs as additional savings resulting from competition. We need not consider the other two cost categories--identified as the start-up and recurring support equipment management costs--since we conclude that the Air Force has identified other costs sufficient to justify its decision here.

[8]This planned deployment of 4 RFMETS devices from the "hot mock-up" to meet peak needs is the reason for the discrepancy between the 20 devices mentioned in the CBD notice, and the 16 devices covered by this procurement.

tester on the "hot mock-up" since the Air Force was apparently willing to sacrifice that capability to meet its needs. In response, the Air Force explains that it will not eliminate its "hot mock-ups," but it is willing to disable them on occasion to meet peak needs. In addition, the Air Force flatly rejects Allied's suggestion that it would be more appropriate to simply keep the four RFMETS in the "hot mock-ups" and buy four additional new testers. According to the Air Force, it needs commonality among all the SOF testers, not just the testers it deploys. The Air Force argues that since it uses the "hot mock-ups" to train technicians for covert crews to troubleshoot disabled LRUs, it does not want to train technicians with one manufacturer's device and then deploy them to remote locations with another device.

Although Allied disagrees with these assumptions, Allied has not shown that those choices are unreasonable. With respect to the cost of rehosting a new tester, we have no basis, nor has Allied offered one, to conclude that the Air Force's calculation of the duplicated costs of rehosting a new tester is unreasonable.

Purchasing reprocurement data

The second most significant duplicative cost identified by the Air Force is the cost of purchasing reprocurement data from the manufacturer of a new tester. The Air Force has already purchased reprocurement data from ESCO, but the data will not be available until April 1993. In its estimate, the Air Force calculates that it will spend 25 percent of the cost of the hardware, or approximately $3 million, for data to reprocure any tester it selects via a competition, and that this cost duplicates the payment for such data to ESCO.

Again, Allied challenges several of the assumptions underlying the conclusion that this cost will be incurred. For example, Allied suggests the Air Force forgo any purchase of reprocurement data if it holds a competition because the J&A states that the current purchase of testers is for the entire amount of the currently foreseeable need for such testers. In addition, Allied argues that it may be unreasonable to assume that the government will not have already procured such data depending on which manufacturer's device is selected.[9] Finally, Allied claims that the method of

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[9]In this regard, Allied speculates that there is at least one other tester on the market manufactured by a different contractor for which the Air Force already owns such data, and that if that manufacturer were the successful offeror, there would be no need to purchase such data. The Air Force

calculating the cost of such data should be determined by competition, not set arbitrarily.

In response to Allied's contentions, the Air Force claims that it would be unwise to procure a new tester via competition and decline to also purchase sufficient data to hold subsequent competitive procurements. The Air Force acknowledges that it has no current need for additional testers but argues that its experience has been to regret not purchasing such reprocurement data when it has the opportunity. In addition, the Air Force states that it receives other benefits from such data, including an increased ability to identify needed spare parts, and to perform required maintenance. With respect to Allied's contention that the Air Force could end up selecting a manufacturer's device for which the agency already owns the data, the Air Force responds that it cannot assume that it will receive the best offer from such a manufacturer and that it is reasonable to identify the cost as one that is likely to be incurred. Finally, the Air Force responds that its experience supports the assumption that reprocurement data costs approximately 25 percent of the cost of the hardware.

Although Allied disagrees with the Air Force's assumption that it would likely incur the cost of repurchasing reprocurement data if it holds a competition, Allied has not offered any evidence, and we see no basis to conclude, that the assumption, or the Air Force's estimate of the costs involved, are unreasonable.

Reprocuring test program sets for the APQ-170 radar

The next item in the Air Force cost analysis is its estimate for the cost of reprocuring test program sets to interface with the new tester and the APQ-170 radar.[10] Specifically, since ESCO's development efforts have already given it a leg up on writing the software to connect its tester to the seven LRUs found in the APQ-170 radar, the Air Force compared the price ESCO would charge for this effort, to the price a new offeror might charge for this effort. The result of this calculation was to assume that a new offeror

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agrees that there is, in fact, such a manufacturer.

[10]Test program sets consist of the software that instructs the common tester on how to test each of the particular LRUs, and an adapter to interface the LRU to the tester. Procurement of these test program sets for each of the 45 LRUs in the SOF aircraft represents approximately 90 percent of the costs of the tester program.

would charge approximately $1.8 million more for this effort.

Allied does not disagree that this cost would have to be incurred, but argues that it is illogical to assume that a sole-source offeror would give a better price for this item than an offeror operating under the pressure of competition. In our view, the Air Force assumption here was based on the reasonable conclusion that the entity who has already developed the capability to test the APQ-170 radar would be in a better position to complete the software and interface work necessary to connect with the APQ-170 radar. Accordingly, we see no reason to object to inclusion of this amount in the Air Force's cost analysis.

Unacceptable Delay

The final component of the Air Force's J&A is the assertion that awarding to other than ESCO would cause unacceptable delay in the SOF tester program. In this regard, the J&A explains that the delay associated with holding a competition and waiting for the successful offeror to reconfigure its tester, and then verify that the tester meets requirements, would add approximately 12 to 18 months to the time estimated to procure ESCO's RFMETS. The Air Force acknowledges that it would be able to meet its testing needs during that time period by paying for support from contractors; however, it estimates that the cost of this support would be as much as $700,000 per month.

We need not decide whether the claimed delays here are sufficient to justify a sole-source procurement under 10 U.S.C. § 2304(d)(1)(B), since the statute requires only a showing of either substantial duplication of costs or unacceptable delay, and we find that the Air Force's decision is justified based on its detailed analysis of the duplication of costs involved.

The protest is denied.

for James F. Hinchman
General Counsel