



The Comptroller General  
of the United States

Washington, D.C. 20548

## Decision

Matter of: Allied Signal, Inc., Garrett AiResearch

File: B-228591

Date: February 25, 1988

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### DIGEST

1. Sole-source award to only firm qualified to produce a particular aircraft part is justified where contracting agency reasonably determines that only that part will meet its minimum needs.

2. Although under Competition in Contracting Act a justification for the award of a contract based on unusual and compelling urgency may be made after the contract is awarded, the justification should be issued within a reasonable time after the contract is awarded.

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### DECISION

Allied Signal, Inc., Garrett AiResearch (Garrett) protests the sole-source award to Curtiss-Wright Flight Systems, Inc., of contract No. F09603-84-G-1386, issued by the Air Force for 2,374 leading edge flap actuators for the F-16 aircraft. We deny the protest.

### BACKGROUND

The F-16 aircraft has eight leading edge flap actuators, four on each wing, which adjust wing flap position. The original Garrett-produced actuators, which are still in use on most F-16s, were initially qualified for an 8,000 hour flight life by the Air Force and General Dynamics, the F-16 prime contractor. As a result of mission changes causing greater than expected stress on leading edge flap actuators, the Air Force and General Dynamics decided that the original actuators would be replaced at 1,500 flight hours. Since 1986, Garrett also has supplied a modified version of the actuators under Engineering Change Proposal (ECP) 1257, which currently is also qualified for only 1,500 hours but which contracting officials indicate may be qualified for longer use based on usage data. At the request of the Air

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Force, and at an approximate cost to the government of \$8,000,000, General Dynamics developed a new configuration actuator, known as the ECP 1258 actuator, which is to have an 8,000 hour life. According to the agency, since the expected life of the F-16 aircraft is also 8,000 hours, ECP 1258 actuators will not have to be replaced.

To determine which firms would supply actuators based on the new configuration, in 1984 General Dynamics conducted a prototype test of actuators produced by Curtiss-Wright, Garrett, and Sundstrand, Inc. Only Curtiss-Wright met the requirements of ECP 1258, including the 8,000 hour life. According to the Air Force, Garrett's actuators were later tested a second time but again were not approved under ECP 1258.

The Air Force plans to eventually retrofit a total of 1,309 aircraft currently equipped with Garrett actuators with ECP 1258 actuators as they reach the mandatory time change interval of 1,500 hours. Most of those aircraft currently have the original Garrett actuators, although 184 aircraft have the modified Garrett ECP 1257 actuators. In response to the protest the Air Force submitted a comparison of the life cycle costs of Curtiss-Wright's ECP 1258 actuators and Garrett's ECP 1257 actuators for the 1,309 aircraft which shows a cost savings of \$39 million through use of the Curtiss-Wright ECP 1258 actuators. The estimated saving is primarily due to the fact that the ECP 1258 actuators are approved for 8,000 hours, the projected life of the aircraft, while Garrett's ECP 1257 actuators, which can be used only for 1,500 hours, would have to be replaced during the useful life of the aircraft. Further, although it is not documented in the agency's cost comparison, the Air Force maintains that additional savings will result from avoiding aircraft downtime, inventory expense and later procurement actions required by the use of the shorter life actuators.

Although the Air Force plans to eventually retrofit 1,309 aircraft with ECP 1258 actuators, requiring a total of approximately 10,000 actuators (eight actuators to an aircraft), the contract awarded to Curtiss-Wright was for only 2,374 ECP 1258 actuators. According to the Air Force, this is the number the agency requires to supply only its urgent needs. The Air Force says that delivery of the 2,374 new ECP 1258 actuators is required to start in early 1989 to meet a projected 1500-hour mandatory actuator change on 181 aircraft between April and December 1989.

A sole-source contract was awarded to Curtiss-Wright based on a determination of unusual and compelling urgency under 10 U.S.C. § 2304(c)(2) (Supp. III 1985), and calls for

delivery of the ECP 1258 actuators from January 1989 until January 1990. The contract does not include a final negotiated price but has a not-to-exceed price of \$36,901,109. The contract also includes a capital equipment clause which states that Curtiss-Wright will purchase \$11,782,000 worth of capital equipment required for the production of actuators and obligates the government to reimburse Curtiss-Wright for the unamortized cost of that equipment if the Air Force does not contract with Curtiss-Wright for 14,000 more actuators by August 31, 1989, for delivery no later than September 1988. The Air Force explains that although Curtiss-Wright is the only firm currently qualified to provide the actuators, without the additional equipment Curtiss-Wright did not have sufficient production capacity to deliver the required quantity in time to avoid grounding of aircraft in April 1989. The contract includes a list of the equipment to be purchased by Curtiss-Wright and a schedule under which the firm can be required to make deliveries under later contracts. The clause provides that Curtiss-Wright will allocate the capital cost of the equipment over the additional 14,000 actuators and that to the extent the firm is not awarded contracts for the additional actuators, the government will reimburse Curtiss-Wright for the unamortized cost of the equipment, which will become government property.

#### PROTEST GROUNDS

Garrett initially challenges the Air Force's determination that the requirement was sufficiently urgent to justify a sole-source award. The protester says that since deliveries are not to start until January 1989, there was sufficient lead time to conduct a competitive procurement. Garrett also argues that there was no reasonable basis for the agency's determination that only Curtiss-Wright's ECP 1258 actuators are qualified for 8,000 hours; according to the protester, its ECP 1257 actuators can be used up to 8,000 hours in some positions on the aircraft and 5,000 hours in other positions. Further, although Garrett concedes that substantial savings will result from converting to a longer life actuator, the protester argues that the agency did not consider the substantial savings that would result from converting from the original Garrett actuators to its own modified ECP 1257 actuators. Finally, Garrett argues that the capital reimbursement provision in Curtiss-Wright's contract includes an option for the purchase of 14,000 actuators beyond the basic quantity of 2,374 and that the option and the capital reimbursement provision itself are beyond the scope of the agency's sole-source justification.

## ANALYSIS

While Garrett frames its argument in terms of a challenge to the agency's determination that urgent and compelling circumstances justified the sole-source award to Curtiss-Wright, Garrett's underlying argument is that the sole-source award was not justified on any basis since Garrett itself is a viable alternate source for the actuators. Conversely, the Air Force's determination that urgent circumstances justified the sole-source award to Curtiss-Wright is based on an underlying determination that the ECP 1258 actuator, which only Curtiss-Wright is qualified to produce, is the only actuator which currently meets its minimum needs. In our view, as discussed further below, the sole-source award to Curtiss-Wright was justified since the Air Force reasonably determined that it required the ECP 1258 actuator to meet its minimum needs.

The record shows two principal grounds for the Air Force's decision to convert to the ECP 1258 actuator, cost savings and safety concerns about the Garrett actuator currently in use. With regard to cost savings, the analysis submitted in connection with the protest projects a savings of \$39 million from conversion to the new actuator. We recognize, as Garrett argues, that there are flaws in the cost analysis, including, for example, a mathematical error in the projected cost of the Garrett actuator which reduces the cost savings associated with the Curtiss-Wright actuator by \$5.7 million. Despite these flaws, however, in our view, it was reasonable for the Air Force to conclude that the Curtiss-Wright actuator will be less costly overall due to its significantly longer useful life, particularly since there is not a great disparity in the projected prices of the two actuators. (The Air Force's cost comparison assumes a 1989 cost of \$6,813 for large and \$6,406 for small Garrett actuators, and a cost of \$9,880 for large and \$8,023 for small Curtiss-Wright actuators.) In this regard, Garrett itself concedes that substantial savings will result from converting to a longer life actuator. Further, we find unpersuasive Garrett's argument that converting from its original actuator to its ECP 1257 actuator may yield cost savings equivalent to converting to the ECP 1258 actuator, since Garrett's analysis is based on projections of a longer useful life for its ECP 1257 actuators in certain positions on the aircraft wing for which the actuator has not yet been qualified.

Further, as noted above, Garrett's actuator was initially qualified for an 8,000 hour life; its useful life later was reduced to 1,500 hours only when mission changes resulted in greater than expected stress on the leading edge flap actuators. The Air Force's position that the actuators

should have an 8,000 hour useful life thus was adopted well before the current award to Curtiss-Wright. More important, the record shows that the effort to develop a new specification for a longer life actuator was prompted by performance problems with the Garrett actuators due to their shorter life. Specifically, the Air Force states that there have been 120 failures of the Garrett actuators since 1979, resulting in damage to 250 other actuators and 57 flaps, and requiring replacement of 12 wings. The Air Force also states that it has experienced other unspecified aircraft "mishaps" due to actuator failures. In view of these safety concerns, we believe that it is reasonable for the Air Force to assume that the new longer life actuator will pose less risk of failure at the same stage of its life than the shorter life Garrett actuator.

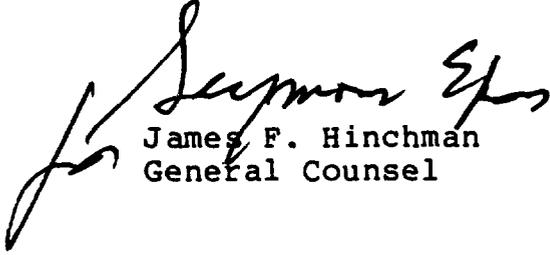
Since the Air Force reasonably determined that it requires the ECP 1258 actuator to meet its needs, and Curtiss-Wright is currently the only qualified producer of the part, the sole-source award to Curtiss-Wright clearly was justified. With regard to future procurements, contrary to Garrett's contention, the contract with Curtiss-Wright does not contain option provisions for additional quantities, and the Air Force states that it intends to competitively procure its future needs if additional firms become qualified to produce the ECP 1258 actuator.

As noted above, the Air Force invoked 10 U.S.C. § 2304(c)(2)--which authorizes the use of other than competitive procedures based on an unusual and compelling urgency--to justify the award to Curtiss-Wright, based on its conclusion that an immediate award was necessary to meet the required delivery schedule for the actuators. Under the Competition in Contracting Act of 1984 (CICA), a contracting agency's written justification for any award based on other than competitive procedures must include a description of the agency's needs and a demonstration, based on the proposed contractor's qualifications or the nature of the procurement, of the contracting agency's reasons for the award decision. 10 U.S.C. § 2304(f)(3)(A) and (B). Also, under CICA the contracting officer is required to certify the accuracy and completeness of the justification and obtain approval for the acquisition from the appropriate agency official. Specifically, a contract such as Curtiss-Wright's for an amount exceeding \$10,000,000 must be approved by the agency's senior procurement executive. 10 U.S.C. § 2304(f)(1)(B)(iii).

Here, the justification originally submitted to our Office was signed only by agency technical personnel and not the contracting officer or any higher ranking personnel of the procuring activity. Although, as the Air Force argues,

under 10 U.S.C. § 2304(f)(2) the required justification may be made after a contract is awarded based on an unusual and compelling urgency, we believe that the justification should be issued within a reasonable period of time after the contract is awarded. In this case, it appears that the requisite justification has not yet been issued, although the Curtiss-Wright contract was signed on July 31, 1987. While this does not affect the validity of the award, we recommend that the Air Force take steps to assure that final action on the justification is completed promptly.

The protest is denied.



James F. Hinchman  
General Counsel