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MAY 1975



Deputy Director, PSAD/GP - John P. Flynn

Philip A. Bernstein

Regional Manager, Seattle - Philip A. Bernstein

Review of Reasonableness of Pricing of Air Force contract  
F33657-71-C-0910 with The Boeing Company, Seattle, Washington  
(950124)

We have completed our review of the pricing of the subject prime contract and subcontracts with the Lockheed Propulsion Company, Redlands, California, and Rockwell International Corporation, Electronics Group, Anaheim, California. Attached are copies of our reports to the Commander, Aeronautical Systems Division, and The Boeing Company. We have excluded six appendices sent to Boeing which are the same as the first six sent to the Air Force. The Los Angeles Regional Office will issue a letter report to the Lockheed Propulsion Company.

Our report shows that the Government will incur estimated unnecessary costs of about \$2.6 million either because certain cost or pricing data the contractor provided to the Air Force in support of target cost proposals was not accurate, complete, and current or Air Force officials did not obtain data or make adequate use of data provided by the contractor.

Our working papers are being retained in the regional office.

Attachments - 2

- cc: Director, FOD w/o attachments
- Director, PSAD w/attachments
- Chief, Publications Branch, DAPS w/attachments & SAO Form 103
- Assistant Director, PSAD/GP - S. Wolin w/attachments

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MAY 1975

Mr. Victor Knutzen  
Corporate Controller  
Box 3707  
The Boeing Company  
Seattle, Washington 98124

Dear Mr. Knutzen:

We recently completed a selective examination of the target pricing of Air Force contract F33657-71-C-0918 with The Boeing Company, Seattle, Washington, for the fiscal year 1972 production buy of Short Range Attack Missiles (SRAM) and related equipment. One purpose of our review was to determine whether the contract was significantly overpriced because the contractor's estimated costs used in establishing the target cost were not based on accurate, complete, and current cost or pricing data.

Our review was made at The Boeing Company, Seattle, Washington; Lockheed Propulsion Company, Redlands, California; Rockwell International Corporation, Electronics Group (formerly the Autonetics Group), Anaheim, California; and at the Aeronautical Systems Division. We also considered the audit work done and recommendations made by the Defense Contract Audit Agency (DCAA) in its audit reports.

The results of our review were discussed with the contractors and a detailed draft summary was submitted to the Director of Procurement and Production, Deputy for Air Launched Strategic Missiles, Aeronautical Systems Division. Their comments have been considered in this report.

We believe the Government will incur significant unnecessary costs because the target cost for contract -0918 was excessive. The target cost was excessive because the contractor's proposed target cost was not always based on the most accurate, complete, and current cost data.

BACKGROUND

The initial major SRAM contract was for design, development, test, and evaluation of the missile and related equipment. It was completed

In November 1972. Contract -0913 is the second of four SRAM production contracts. It was virtually complete at the time of our review.

Contract -0914 is for the procurement of 465 AGM-89A missiles and associated aerospace ground equipment, carrier aircraft equipment, training equipment, training services, site activation services, and data. It is a Fixed Price Incentive Firm type of contract. Boeing receives the target profit if the final negotiated cost is equal to the target cost. If the final cost is greater than the target cost, Boeing receives the target profit less 50 percent of the amount by which the final negotiated cost exceeds the target cost. If the final cost is less than the target cost, it receives the target profit plus 50 percent of the amount by which the final negotiated cost is less than the target cost.

Boeing submitted its basic price proposal on April 1, 1971. There were four updates through June 25. Negotiations started on July 7. A basic target cost of \$279,466,900 was negotiated on September 8, 1971, and a basic target price of \$309,466,900 was agreed to on September 9, 1971. However, negotiations continued through September 27, 1971, to recognize adjustments to the basic target cost and price.

Boeing certified, in accordance with ASFR 3-807.3, that cost or pricing data provided to the contracting officer or his representative was accurate, complete, and current as of September 27, 1971. The targets agreed to on this date were as follows:

Target cost	\$266,236,673
Target profit	28,579,326
Target price	294,815,999

The target cost and estimated final cost at the time of our review, with 98.6 percent of the estimated final costs incurred, were as follows:

	<u>Total</u>
Target cost	\$305,260,000
Final cost	<u>261,574,000</u>
Target cost underrun	<u>\$ 43,686,000</u>

The contractor will receive a target profit of about \$33.184 million plus an incentive profit of about \$21.643 million (50 percent of the target cost underrun).

We reviewed Boeing's proposed target costs for production labor, production material, Lockheed and Autonetics subcontracts, subcontract

allowance for changes (PRR), and general and administrative expenses. These cost elements directly accounted for approximately \$28 million of the total target cost underrun of about \$44 million.

Public Law 87-653, in essence, requires prime contractors and subcontractors to submit cost or pricing data in support of proposed prices for noncompetitive contracts and subcontracts expected to exceed \$100,000 and to certify that this data is accurate, complete, and current. Contract prices can be adjusted when the price to the Government has been increased significantly because the contractor or subcontractor furnished data that was inaccurate, incomplete, or noncurrent as certified. Armed Services Procurement Regulation 3-307.5 provides that the Government is entitled to a price adjustment if the data is inaccurate, incomplete, or noncurrent as of the effective date of the certificate.

RESULTS OF REVIEW

We estimate that the target cost of contract -0918 was overstated by about \$7.9 million because certain cost or pricing data the contractor provided to the Air Force in support of target cost proposals was not accurate, complete, and current. Unless the contract price is adjusted, we estimate that this overstatement will result in excess costs to the Government of about \$5.1 million, as shown in the following table.

	<u>Amount</u>
<u>Overstated target cost</u>	
Lockheed subcontract:	
Tooling labor	\$2,658,561
Raceway parts	328,029
Autonetics subcontract:	
Total proposed target cost	222,493
Computer core memories	
Operational	830,516
Spares (see below)	
Subcontract allowance for change orders	1,998,989
Production material	1,319,668
General and administrative expense	<u>519,793</u>
 Total overstated target cost	 <u>\$7,878,049</u>
 <u>Excess cost to Government</u>	
Target profit - 10.735% of \$7,047,533 (\$7,878,049 less \$830,516)	\$ 756,353
Incentive profit - 50% of \$7,047,533	3,523,766
Excess fixed price for computer core memories	
Operational	678,678
Spares	<u>102,454</u>
 Total excess cost to Government	 <u>\$5,061,451</u>

These matters are summarized in the following paragraphs and presented in detail in the appendices.

#### Lockheed tooling labor

Prior to negotiation of the prime contract target cost, Boeing completed a cost analysis of Lockheed's total price proposal. The estimated cost developed by this study was significantly less than the contractor's subsequent target cost proposal to the Air Force. This study was not provided to the Air Force contracting officer.

With respect to Lockheed's proposed tooling hours, Boeing personnel spent considerable effort subsequent to a joint Boeing/Government "should cost" review. This study considered the need for and value of each tool included in Lockheed's proposal. Had Boeing's analysis estimate for this one cost element been used in establishing the prime target cost for the Lockheed subcontract, the prime contract target cost would have been reduced by about \$2.7 million (appendix I).

#### Lockheed raceway parts

Lockheed's proposed material costs, used by Boeing to develop its target cost proposal to the Air Force, assumed that all SRAM raceway parts would be purchased from CALAC, a Lockheed subsidiary. However, prior to the negotiation of the prime contract target cost, Lockheed decided to procure about one-half of these parts from a second source at significantly lower prices and issued a purchase order to this source for raceway tooling. Also, CALAC quoted generally lower prices for the reduced quantities.

Lockheed apparently did not disclose this additional cost or pricing data to Boeing or the Government prior to prime contract target cost negotiations. We estimate that Boeing's proposed costs for these parts resulted in an overstatement of the prime contract target cost of about \$328,000 (appendix I, page 9).

#### Proposed target cost for Autonetics subcontract

Boeing's final documented target cost proposal to the Air Force for the Autonetics subcontract exceeded the target price Boeing had negotiated with Autonetics. This resulted in an overstatement of the prime contract target cost by about \$222,000. (appendix II)

#### Autonetics computer core memories

Autonetics did not advise the prime contractor or the Air Force of price quotations received from alternate potential sources of supply

which were substantially less than prices quoted by the known source of supply and included in Autonetics' target price proposal to Boeing.

Subsequent to negotiation of the Boeing/Autonetics subcontract price, but prior to negotiation of the prime contract target the known source of supply reduced its price quotation by about \$4,000 a unit. Autonetics did not advise Boeing that Autonetics had received the lower price quotations.

Since both subcontract and prime contract target costs were based on the higher quotation, both contract prices were overstated. We estimate that the Government will incur unnecessary costs of about \$781,000 because of the estimated cost for computer core memories included in prime contract -0918 (appendix II, page 4).

Subcontract allowance for  
change orders

Boeing included in its target cost proposal, as a separate element of cost, an allowance for projected change orders affecting subcontract prices which could not be recovered by changes to prime contract prices. The change orders would be outside the scope of work required by the basic subcontract but within the scope of work of the prime contract.

The contractor certified that cost or pricing data submitted to the Air Force contracting officer was accurate, complete, and current, as of September 27, 1971. Our review showed that all data provided prior to this date was not accurate, complete, and current. This resulted in an excessive target cost of about \$1.999 million (appendix III).

Production material

The contractor's final target cost proposal of \$9.6 million for production material costs, based on a partially completed bill of materials (parts list) dated July 1, 1971, was accepted by the Air Force. This proposed cost was overstated because it contained certain inaccurate data and was not based on the latest available cost or pricing data.

--A later parts list dated August 12, 1971, was not provided to the Air Force,

--There were errors in the parts list,

--Latest available unit prices were not always provided to the Air Force.

As a result, we estimate that the target cost of contract -0918 was overstated by about \$1.32 million (appendix IV).

General and administrative expense

General and administrative (G&A) expenses included in the target cost were computed using forward pricing overhead rates negotiated between the contractor and the Air Force. The Boeing Aerospace Company computes the G&A rate by dividing the estimated G&A expenses by the total volume of business costs over which the expenses are to be spread. Each contract is charged with G&A expense in proportion to costs incurred.

The target cost was overstated because the contractor did not provide to the Air Force accurate cost or pricing data on estimated material costs. Estimated material costs were not used in a consistent manner in Boeing's proposed target cost. The proposal included estimated material costs as separate cost elements (materials, purchased equipment, and subcontract costs) and also as part of the cost base for computing the G&A expense forward pricing rates. Since G&A expenses are distributed to contracts based on costs incurred, including material costs, estimated material costs should be the same in all cost elements of the target cost.

Boeing's estimated material costs for contract -0918 used for establishing the G&A expense absorption base were about \$18 million less than material costs proposed as separate cost elements. We estimated that this resulted in an overstatement of the target cost of contract -0918 by about \$520,000 (appendix V).

We would appreciate any comments you may wish to make on the matters discussed in this report.

We would like to take this opportunity to acknowledge the courtesy and cooperation extended to our representatives during the review.

Sincerely yours,

Philip A. Bernstein

Philip A. Bernstein  
Regional Manager

Enclosures

cc: Chief, Dist. Sec. OAPS (w/o appendices) ✓