

## DOCUMENT RESUME

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[ Review of Pricing of Navy Contract ]. PSAD-78-82; 3-168450.  
February 21, 1978. 3 pp. + enclosure (8 pp.).

Report to Secretary, Department of Defense; by R. W. Gutmann,  
Director, Procurement and Systems Acquisition Div.

Issue Area: Federal Procurement of Goods and Services (1900);  
Federal Procurement of Goods and Services: Reasonableness of  
Prices Under Negotiated Contracts and Subcontracts (1904).

Contact: Procurement and Systems Acquisition Div.

Budget Function: National Defense: Department of Defense -  
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Organization Concerned: Department of Defense: Assistant  
Secretary of Defense (Comptroller); Lockheed Shipbuilding  
and Construction Co., Seattle, Wn.

Congressional Relevance: House Committee on Armed Services;  
Senate Committee on Armed Services.

A review was conducted of the pricing of a Navy contract awarded to Lockheed Shipbuilding and Construction Co. for two submarine tenders and related items. The contract was a cost-plus-incentive-fee-type contract with a target price of \$252,920,319. The pricing provisions of the contract did not fully protect the interests of the Government because they did not encourage the contractor to control costs during the performance of the contract. Unnecessary costs may have been borne by the Government as a result. Although \$16.2 million of proposed costs was not supported by cost or pricing data, the contracting officer accepted these costs in establishing a target price. The officer did not explain his reasons for allowing the unsupported costs. In addition, the contract target costs was overstated by about \$437,000 because cost or pricing data provided by the contractor were not current, complete, and accurate. The Secretary of the Navy should provide a report setting forth actions that will be taken to prevent similar problems. The Navy should assure that incentive provisions included in contracts continuously motivate contractors to minimize costs. (RRS)

5462



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

PROCUREMENT AND SYSTEMS  
ACQUISITION DIVISION

B-168450

FEB 21 1978

The Honorable  
The Secretary of Defense

Attention: Assistant Secretary of Defense  
(Comptroller)

Dear Mr. Secretary:

We have completed a review of the pricing of Navy contract N00024-75-C-2025, awarded to Lockheed Shipbuilding and Construction Company, Seattle, Washington, on October 4, 1974. This cost-plus-incentive-fee-type contract, with a target price of \$252,920,315, provided for the construction of two submarine tenders and related items.

This review was part of a nationwide review of the pricing of noncompetitive prime contracts awarded by the Department of Defense. Individual contract reviews represent a part of our efforts to monitor the Department of Defense's adherence to prescribed laws, regulations, and procedures in negotiating noncompetitive contract prices.

Our objectives were to determine whether (1) the pricing provisions of the contract protected the interests of the Government, (2) the Navy procurement office had a sound basis for accepting the contractor's proposed manufacturing costs, and (3) certain items of equipment were reasonably priced based on cost or pricing data available to the contractor at the time of negotiations.

Our review was made at the Naval Sea Systems Command, Washington, D.C.; the Supervisor of Shipbuilding, Conversion, and Repair, Seattle, Washington; and at Lockheed. We also considered the audit work done by the Seattle Branch Office, Defense Contract Audit Agency.

Details on the results of our review are provided in the enclosure to this letter.

PSAD-78-82  
(950384)

In summary we found that:

- The pricing provisions of this contract do not fully protect the interests of the Government because they do not encourage the contractor to control cost throughout the performance of the contract. As a result, unnecessary costs may be borne by the Government. (See enclosure, pages 1 and 2.)
- Although technical evaluations and cost and price analyses of the contractor's proposal indicated that \$16.2 million of proposed costs were not supported by cost or pricing data, the contracting officer accepted these costs in establishing a target price. The contracting officer did not explain in the price negotiation memorandum, as required, his reasons for allowing the unsupported costs. (See enclosure, pages 2-5.)
- The contract target cost was overstated by about \$437,000 because cost or pricing data provided by the contractor in support of certain items of material was not current, complete, and accurate. (See enclosure, pages 5-8.)

Agency and contractor comments

The Navy chose not to comment on a draft of this report. Lockheed, in commenting on the overpricing, stated that the price was adequately supported.

Recommendations:

We recommend that you have the Secretary of the Navy provide you with a report setting forth actions that will be taken to prevent recurrence of similar problems. Specifically, the Navy should assure that incentive provisions included in contracts continuously motivate contractors to minimize costs. Further, the importance of performing a thorough evaluation of contractors' cost and technical proposals prior to contract award should be reemphasized.

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We also recommend that the target price be reduced by the amount it was overstated because the contractor failed to provide the Government with accurate, current, and complete cost or pricing data, as provided for by the defective pricing clause included in the contract. As discussed on page 5 of the enclosure, we believe the net reduction in the amount to be paid to the contractor will be limited to about \$22,000.

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We are sending copies of this letter to the Lockheed Shipbuilding and Construction Company; the Director, Office of Management and Budget; the Secretary of the Navy; the Commander, Naval Sea Systems Command; and the Director, Defense Contract Audit Agency. We are also sending copies to the Chairmen, Senate and House Committees on Appropriations and Armed Services, the House Committee on Government Operations, and the Senate Committee on Governmental Affairs.

As you know, Section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We would appreciate receiving your comments on the matters discussed in this report and would be happy to discuss any questions that you may have.

Sincerely yours,



R. W. Gutmann  
Director

Enclosure

ENCLOSURE

ENCLOSURE

REVIEW OF TARGET PRICING  
OF NAVY CONTRACT N00024-75-C-2025  
WITH LOCKHEED SHIPBUILDING AND  
CONSTRUCTION COMPANY

BACKGROUND

On October 4, 1974, contract N00024-75-C-2025 was awarded to Lockheed Shipbuilding and Construction Company for the construction of two submarine tenders (AS39 and AS40), data, repair parts, spares, special tools, and support and test equipment. This cost-plus-incentive-fee-type contract was awarded at a target cost of \$233,944,740, target fee of \$18,975,579, and a target price of \$252,920,319. Target fee is 8.1 percent of target cost. The target fee is to be increased by 20 percent of any target cost underrun or decreased by 20 percent of any target cost overrun. Regardless of cost incurred, the contract provides for a minimum fee of 4 percent of the target cost and a maximum fee of 11 percent of the target cost.

PRICING PROVISIONS

The pricing provisions of this contract, in our opinion, do not fully protect the interests of the Government and could result in undeterminable additional costs to the Government. While the contractor is provided incentive to control costs up to a certain dollar level, there is little incentive provided beyond this point.

As shown in the following table, there is limited incentive for the contractor to reduce or control costs between \$270,336,450 and \$306,736,750, a range of about \$36 million, since the fee remains fixed at \$11,697,237. Further, the contractor has no incentive to control costs once costs exceed \$306,736,750 since the fee thereafter remains fixed at 4 percent of target cost or \$9,357,789.

If the actual cost is

less than target cost  
(\$233,944,740)

equal to the target cost

between the target cost  
and \$270,336,450

between \$270,336,450  
and \$306,736,750

over \$306,736,750

The contractor receives

the target fee (\$18,975,579)  
plus 20 percent of the differ-  
ence between the target cost  
and actual cost

the target fee

the target fee less  
20 percent of the differ-  
ence between the target cost,  
and \$270,336,450

5 percent of the target cost  
or \$11,697,237

4 percent of the target cost  
or \$9,357,789

To effectively motivate contractors to control and reduce costs, the incentive fee provisions of contracts should be structured so that the fee is subject to percentage reductions for all costs in excess of target cost. The Armed Services Procurement Regulations provides for the use of fee provisions which could result in the contractor receiving a negative fee because of incurring excessive costs.

NEGOTIATED CONTRACT PRICE NOT  
SUPPORTED OR JUSTIFIED

The Navy's price negotiation memorandum (postnegotiation business clearance memorandum), dated October 21, 1974, states that only \$246.7 million of the \$252.9 million, a difference of \$6.2 million, target price negotiated for the contract was fully supported. Thus, the Navy accepted Lockheed's final proposal even though it believed that the final settlement should have been about \$6.2 million less. Further, we found that \$10.0 million of the of the \$246.7 million was not fully supported or justified. This included \$3.9 million related to labor learning curve computations, and \$6.1 million of disputed cost for installing equipment. As a result, we believe the Navy did not have adequate assurances that \$16.2 million of the negotiated target price was reasonable.

Variance between negotiated costs and the Navy's position

About \$4.9 million of the \$6.2 million variance is attributable to manufacturing labor costs. The price negotiation memorandum shows that \$72.4 million was considered to have been negotiated for manufacturing labor while the Navy's analysis supported \$67.5 million. Unresolved issues included production and direct support labor hours, and \$3 million in labor escalation. The remaining \$1.3 million (\$6.2 less \$4.9 million) in unsupported target price was attributable to variances in other cost elements and the contractor's fee. The Navy's price negotiation memorandum does not comment on why these unsupported costs were allowed.

Inadequate support for the learning curve factor used to determine manufacturing labor hours for AS-40

To compute the manufacturing labor hours required for the second ship, the AS-40, the contractor proposed and the Navy accepted a 90 percent learning curve factor. The 90 percent learning curve factor was accepted on the advice of the Supervisor of Shipbuilding, Conversion, and Repair (SUPSHIP). The Defense Contract Audit Agency (DCAA), however, proposed that an 83 percent learning curve factor be used. SUPSHIP officials told us that they did not use the contractor's data or data from the production of similar submarine tenders in evaluating the adequacy of the 90 percent factor. These officials told us that their position was based on judgment. DCAA's position, however, was based on actual labor hours experienced by Lockheed for constructing several vessels under recent contracts, five destroyer escorts, and seven landing platform docks.

The variance between using a 90 percent and 83 percent factor is 261,525 manufacturing labor hours (8,384,846 less 8,123,321). In addition, the AS-39/40 contract manufacturing labor hours are used as a basis for determining other costs, such as production overhead, and general and administrative expenses. The effect of the learning curve variance on the target price is shown in the following table.

	<u>90 percent</u>	<u>83 percent</u>
<u>Manufacturing labor hours</u>		
Production labor	7,206,099	6,944,574
Director support	1,090,747	1,090,747
Lofting	<u>88,000</u>	<u>          </u>
Total hours	<u>8,384,846</u>	<u>8,123,321</u>
<u>Cost associated with hours</u>		
Production labor @ \$7.78 per hour	\$56,063,450	\$54,028,786
Direct support @ \$7.01 per hour	7,646,136	7,646,136
Lofting @ \$6.18 per hour	<u>543,840</u>	<u>543,840</u>
Total manufacturing labor cost	64,253,426	62,218,762
Production overhead: 69.944 percent of total manufacturing labor cost	44,941,416	43,518,291
G&A expense: 5.2666 percent of total manufacturing labor cost	<u>3,383,971</u>	<u>3,276,813</u>
Total costs	\$121,697,697	\$117,843,989
Business and occupation tax @ .54 percent	<u>657,168</u>	<u>636,358</u>
Totals	<u>\$122,354,865</u>	<u>\$118,480,347</u>

As shown, there is a variance of about \$3.9 million (\$122.4 less \$118.5 million) in target price using an 83 percent learning curve factor.

The Navy's negotiation memorandum does not comment on why the DCAA's recommendation for use of an 83 percent factor was not accepted.

Contractor's proposal not adjusted  
for questioned labor hours

The Navy's price negotiation memorandum does not show any adjustment for an issue raised in a SUPSHIP pricing report or explain why this issue was not recognized in establishing the Navy position.

On March 7, 1974, SUPSHIP issued a pricing report which questioned 179,137 production labor hours for installing large equipment. The Navy's price negotiation memorandum, however, does not reflect any adjustment or provide any explanation of why these hours were not recognized in establishing the Navy's position. The 179,137 production labor hours accounted for about \$6.1 million of the negotiated target price.

INACCURATE, INCOMPLETE, OR  
NONCURRENT COST OR PRICING DATA

We estimate that the contract target cost was overstated by about \$437,000 because certain cost or pricing data Lockheed provided to the Navy in support of the target cost proposal was not accurate, complete, or current. Since Lockheed's estimated final cost indicates that the contractor will receive a minimum profit rate of 5 percent of the target cost, the effect of this overstatement apparently will be limited. Unless the contract price is adjusted, we estimate that the overstatement will result in excess costs to the Government of about \$22,000. Although this amount is insignificant in relation to total contract cost, we believe it should be recovered, as provided for by the defective pricing clause included in the contract.

We reviewed the negotiated target costs for 10 items of equipment and material including (1) anchors and chains, (2) hoists and handling gear, and (3) steel shafting. We identified potential overpricing for these three items.

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 of the effective date of the certificate.

Lockheed certified that cost or pricing data provided to the contracting officer or his representative was accurate, complete, and current as of October 4, 1974, the date of price agreement.

### Anchors and chains

Lockheed's price for anchors and chains was based primarily on a supplier's October 5, 1973, quote of \$1,174,911. We found however, that this supplier revised its quote on July 16, 1974, to \$1,059,221. This revised quote was not provided to the Navy. Based on the foregoing comparison, the contractor's final target cost proposal was overstated by \$115,690 (\$1,174,911 less \$1,059,221).

### Hoists and handling gear

DCAA's audit report of February 20, 1974, stated that duplicate costs of \$70,136 for nonrecurring engineering labor and data were included in Lockheed's price proposal. Our review confirmed this duplication.

We found, however, that no adjustment was made to the contractor's proposed target cost to allow for the duplicated costs for hoists and handling gear. Accordingly, the contractor's final proposed target cost was inaccurate and overstated in the amount of \$83,430, including negotiated escalation cost.

The Navy's negotiation memorandum included no explanation as to why these duplicate costs were not deleted from Lockheed's proposal.

### Propeller shafting

We estimated that the target cost was overstated by about \$236,000 because Lockheed did not request a price quotation for propeller shafting from the vendor who had previously supplied another type of shafting at the lowest competitive price.

In a prior procurement, Lockheed requested price quotations from 11 domestic and foreign vendors for line and thrust shafts for an icebreaker built under U.S. Coast Guard contract DOT-CG-10243-A. Mitsui and Company (USA), Inc., was the low bidder, and a purchase order dated November 14, 1972, was issued to Mitsui. National Forge Company and two other domestic vendors

submitted price quotations. National quoted the highest price, which was at least 38 percent higher than Mitsui's bid. National's bid was based on the price at the time of delivery while Mitsui's price was firm.

Ten months later, Lockheed requested price quotations from four domestic vendors for line, stern, and propeller shafting for the AS-39 and AS-40. National was the only respondent and quoted a price of \$533,518. Lockheed did not request a quote from Mitsui. The Navy accepted Lockheed's final proposed cost of \$613,645 for propeller shafting. The cost was based on the \$533,518 quote from National.

In April 1975, however, Lockheed requested new quotes from eight vendors, including three foreign vendors. Lockheed received five replies, including quotes from Mitsui and National. The contractor considered all replies technically acceptable. Mitsui quoted the lowest price of \$342,000 with no escalation. Lockheed selected Mitsui as the shafting vendor based on the lower price quotation "and prior procurement experience with Mitsui including shafting."

On July 25, 1975, Lockheed issued purchase orders to Mitsui for AS-39/40 propeller and stern tube and line shafting totaling \$342,000. On April 23, 1976, the price of the Mitsui shafting had increased to \$378,000 because Lockheed added a requirement to provide a rubber coating on the shafts. Lockheed advised us that this coating was included in the preaward quote requests sent only to domestic vendors.

Thus, the April 1976 purchase price was \$235,645 less than Lockheed's final proposed cost.

Final proposed cost	\$613,645
Actual cost	<u>378,000</u>
Excess proposed cost	<u>\$235,645</u>

We found no evidence indicating that the Navy contracting officer, or any of his representatives, were apprised by Lockheed of its previous experience with Mitsui as low bidder for shafting for the icebreaker. Lockheed told us that (1) a price quotation was not solicited from Mitsui because, in 1973, this company was not considered the safest and most reliable

vendor, (2) foreign buys can have hidden costs, and (3) in the September 1973 time frame the Japanese steel market was known to be higher priced than the domestic steel market. Documentation, however, was not available to support these statements.

Following is our computation of the indicated total overstated target cost and excess cost to the Government for the three items discussed above.

Overstated target cost

Anchors and chains .	\$115,690
Hoists and handling gear	83,430
Propeller shafting	<u>235,645</u>
Total	434,765
Business and occupation tax .58%	<u>2,522</u>
Total overstatement	<u>\$437,287</u>

Excess cost to the Government

Overstated target cost	437,287
Minimum fee rate	<u>.05</u>
Excess minimum fee	<u>\$ 21,864</u>