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MAR 15 1972

B-133170



Dear Mr. Chairman:

Pursuant to our letter to you of June 16, 1971, and in continuation of our evaluation of the disposition of shipbuilders' claims for price increases on contracts awarded by the Department of the Navy, we have examined into the circumstances surrounding the initiation, evaluation, and settlement of five consolidated claims made by the Lockheed Shipbuilding and Construction Company. The claims amounted to \$40.9 million as of August 22, 1969, and this amount was evaluated by Navy technical personnel. Subsequent to August 22, 1969, Lockheed informally revised the claims, which increased the total to \$46.3 million. In May 1970 the Navy negotiated a settlement in the amount of \$17.9 million.

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The enclosure to this letter contains information on five Lockheed contracts, including the types of vessels involved, contract prices, delivery dates, and claim settlement amounts. The contracts were awarded on a fixed-price basis in the total amount of \$83.5 million. The final amount paid, however, including additional amounts for escalation clauses, change orders, and claim settlements, was about \$121 million.

LOCKHEED'S DEVELOPMENT OF CONSOLIDATED CLAIMS

A company official advised us that Lockheed, upon realizing that it was getting into a serious loss position on its Navy contracts, decided in 1966 to develop claims and to submit them to the Navy for the recovery of additional costs. Lockheed believed that the losses had been caused by actions for which the Government was at fault. During 1967 Lockheed established a team to develop claims for reimbursement of costs above those normally resulting from formal change orders or other written directions from the Navy.

The claims were based on a number of underlying causes, such as late and defective Government-furnished material, defective or impossible Government specifications, late and defective lead-yard plans (working plans and other design data prepared by the contractor that had constructed the first ship

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of a new design class), increased inspection requirements, work in excess of specification requirements, delays and disruptions caused by change orders, and various constructive changes (directions by the Government for changed or additional work not covered by formal change orders).

The contracts required Lockheed to accumulate and maintain data on a total-cost basis. Also Lockheed's cost accounting system did not provide for linking additional actual costs incurred to individual events or changes. Amounts claimed by Lockheed were established by estimating the amounts of additional labor and overhead which might have been expended because of Government actions plus the actual or estimated cost of additional materials used.

The Navy established a special task force for evaluating the claims and negotiating an equitable settlement with Lockheed. The task force consisted of a contracting officer in charge, a negotiator, a counsel, an engineer, an auditor, and a separate three-member technical evaluation team for each of the claims. Each three-member technical evaluation team consisted of an engineer, a counsel, and a technical analyst. The task force was able to get assistance as needed.

The Navy task force spent approximately 1 year in evaluating Lockheed's claims. The task force auditor was provided by the Defense Contract Audit Agency and was responsible for determining the financial accuracy of the claims. The audits included such tests as verifying to the accounting records the labor and overhead rates and the material prices used by Lockheed to establish the amounts claimed. The audits showed that a significant part of Lockheed's claims included erroneous cost data and lacked adequate supporting documentation. The advisory audit reports recommended disallowance of about \$8.9 million of Lockheed's claims, including \$2.2 million of additional labor costs which exceeded actual recorded labor costs.

The technical evaluation teams were responsible for determining the reasonableness of the labor-hours and material items claimed. We found that generally they had evaluated

each claimed item by (1) reviewing pertinent Navy and Lockheed records, such as letters and memorandums, to determine whether the event actually had happened as claimed, (2) reviewing Lockheed's claim-support records, such as cost-estimate schedules and ship-compartment diagrams, and (3) using their own experience and professional judgment to make an estimate of the number of labor-hours and the amount of material that they considered reasonable. The following two examples illustrate the reviews made by technical teams.

1. Lockheed claimed 243,334 additional production man-hours attributable to late delivery of Government-furnished boilers for the construction of two destroyer escorts. Lockheed contended that delivery of the boilers for one of the ships had been delayed 14 months, or 424 days, and for the other ship had been delayed 7-1/2 months, or 226 days.

To arrive at these figures, Lockheed evaluated the effects of the late deliveries on its ship construction plan by (1) developing from its records the total actual expended man-hours by month for each ship and (2) having a team of Lockheed employees who had been directly involved in the work on the two ships estimate the amount of additional production man-hours attributable to the late delivery of the Government-furnished boilers. In a technical advisory report, the Navy stated that it (1) had divided man-hours claimed by Lockheed between the two ships by using a ratio developed from Lockheed's claim of the number of days' delay on each ship, (2) had investigated the ship compartments whose construction Lockheed claimed had been disrupted by the late delivery of the boilers, and (3) had compared the actual boiler-installation dates with the scheduled boiler-installation dates for each ship.

The Navy found that the installation of boilers in one ship had been delayed 48 working days and that the installation of boilers in the second ship had not been delayed. In evaluating the hours claimed by Lockheed

for the ship for which delivery of the boiler had been delayed, the Navy found that Lockheed's claim was based on the use of 65 men each day. By applying the 65-man figure to the 48 working days' delay on the ship, the Navy determined that 24,960 man-hours of delay had been caused by the late delivery of Government-furnished boilers compared with 157,167 man-days determined by the Navy to be the part of Lockheed's claim applicable to the late delivery. The Navy evaluator recommended disallowance of the excessive man-hours claimed, including all the 86,167 man-hours of labor determined by the Navy to be the hours claimed by Lockheed as applying to the second ship, for which the installation of boilers had not been delayed.

2. Lockheed claimed that 8,796 additional production man-hours were attributable to work not required by contract specifications to correct an overweight condition of the hydrofoil. Lockheed contended that the contract provided that the shipbuilder fabricate the hull and structure in accordance with certain specifications furnished by the Government and that, because of a defect in the Government specifications which caused the ship to be overweight, Lockheed had had to conduct a comprehensive, far-reaching research and engineering development effort to reduce the weight of the ship. Lockheed calculated the additional production man-hours required to correct this defect by (1) estimating the production man-hours expended to fabricate the hull and structure and (2) subtracting from this number the production man-hours estimated to have been originally bid for the hull and structure fabrication. In the technical advisory report, the Navy evaluators accepted Lockheed's contentions and concluded that, due to the extra effort involved, the 8,796 additional production man-hours claimed by Lockheed were reasonable.

CONCLUSIONS

Lockheed's cost accounting system and other records did not relate its additional costs to Government actions; therefore the extent to which the Government was responsible for these costs was difficult to establish. In the absence of such accounting records, Lockheed based its claims largely on engineering estimates.

Because of the significant number of engineering and technical judgments that entered into the settlement and because of the lack of available documentation against which to verify the extent of the Government's responsibility, we are not in a position to express an opinion on the reasonableness of the settlement. We believe, however, that, under the circumstances, the Navy made a commendable effort to effect a reasonable settlement, and we did not find any basis for questioning the reasonableness of the settlement made.

We believe also that the Navy should require contractors to maintain records in support of claims. We have discussed the issue of adequate recordkeeping with the Navy. Navy officials advised us that they were exploring with an industry group problems that might be anticipated in requiring contractors to segregate direct costs for contract changes under the "Change Order Accounting" clause. The Navy also presented for the group's review a proposed "Estimating System Criteria Specification." In addition, the Navy stated that business review offices had been established at three supervisor-of-shipbuilding locations to study estimating and pricing techniques of major private shipbuilders constructing Navy ships.

In a report issued in February 1972 entitled "Causes of Shipbuilders' Claims for Price Increases" (B-133170), we reviewed other Navy actions designed to minimize the number and dollar value of shipbuilding claims and concluded that the Navy's actions held considerable promise for achieving their objectives. The Navy's actions include programs to improve ship specifications, to minimize delays and defects in Government-furnished equipment and information, and to promote a common understanding of quality assurance requirements.

B-133170

We did not obtain agency or contractor comments on the matters included in this report.

We plan to make no further distribution of this report unless copies are specifically requested, and then we shall make distribution only after your agreement has been obtained or public announcement has been made by you concerning the contents of the report.

If we can further assist you in this matter, please let us know.

Sincerely yours,



Comptroller General  
of the United States

Enclosure

*CHP*  
The Honorable William Proxmire  
Chairman, Joint Economic Committee . *TNT 00700*  
Congress of the United States

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DESCRIPTION OF FIVE LOCKHEED CONTRACTS

	<u>NObs</u> <u>4516</u>	<u>NObs</u> <u>4619</u>	<u>NObs</u> <u>4645</u>	<u>NObs</u> <u>4680</u>	<u>NObs</u> <u>4758</u>	<u>Total</u>
Type of contract	Fixed price	Fixed price	Fixed price	Fixed price	Fixed price	
Award date	January 1962	March 1963	March 1963	July 1963	March 1964	
Type of work	Construction	Modernization, renovation, and conversion	Construction	Construction	Conversion and repair	
Number of ships	3	2	2	1	2	10
Type of ship	Guided missile destroyer escorts	Fleet oilers	Destroyer escorts	Hydrofoil	Ammunition	
Original delivery dates	February 1965, June 1965, and October 1965	June 1964 and September 1964	March 1966 and July 1966	November 1965	July 1965 and January 1966	
Actual delivery dates	March 1966, May 1967, and May 1968	December 1964 and February 1965	March 1968 and October 1968	March 1969	June 1966 and November 1968	
Original contract price	\$28,453,995	\$14,949,563	\$19,721,200	\$11,795,000	\$ 8,545,615	\$ 83,465,373
Causes of price increases:						
Change orders	3,182,855	5,112,776	547,421	182,458	8,606,934	17,632,444
Escalation	1,585,400		403,693			1,989,093
Claim settlement	<u>4,247,000</u>	<u>1,727,000</u>	<u>3,811,000</u>	<u>4,000,000</u>	<u>4,115,000</u>	<u>17,900,000</u>
Final contract price	<u>\$37,469,250</u>	<u>\$21,789,339</u>	<u>\$24,483,314</u>	<u>\$15,977,458</u>	<u>\$21,267,549</u>	<u>\$120,986,910</u>
Consolidated claim:						
Original	\$ 9,590,353	\$ 6,413,343	\$ 9,359,031	\$ 4,649,851	\$ 6,066,752	\$ 36,079,330
Revised August 22, 1969	10,464,258	6,238,187	10,231,615	6,782,536	7,214,661	40,931,257

ENCLOSURE

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