

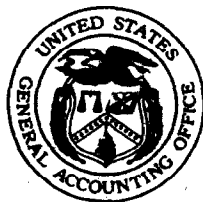
GAO

Report to the Commander, Electronic
Systems Division
Department of the Air Force

August 1986

CONTRACT PRICING

Subcontractor Prices Overstated on AN/TSQ-111 Communications Contract



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National Security and
International Affairs Division

B-219741

August 22, 1986

Lieutenant General M. F. Chubb, Jr., USAF
Commander, Electronic Systems Division
Air Force Systems Command
Hanscom Air Force Base, Massachusetts 01731-5000

Dear General Chubb:

As part of a nationwide review of contract pricing at 10 Department of Defense contractor locations, we reviewed subcontract pricing at the Martin Marietta Corporation, Martin Marietta Orlando Aerospace, Orlando, Florida. We examined subcontract pricing for the AN/TSQ-111 Communications Nodal Control Element (CNCE) Phase II Production Program under prime contract F19628-83-C-0051. Our objective was to determine if subcontract costs included in the contract price were fair and reasonable and whether the contractor complied with Public Law 87-653 in providing accurate, complete, and current cost or pricing data.

Martin's contract proposal included parts to be purchased from subcontractors. Martin, through several errors and omissions, overstated the proposed prices from five subcontractors and understated prices on two others. As a result, the basic contract price was overstated by \$315,328, including overhead and profit. Also, contract option prices were overstated by as much as \$646,864. Detailed information concerning the \$962,192 overstatement, including Martin's comments, is presented in appendix I.

Martin officials told us that they have always emphasized the importance of meeting both the letter and the spirit of applicable laws and procurement regulations. Accordingly, in response to the deficiencies we noted, Martin initiated an extensive self-audit of both the CNCE contract pricing and its estimating systems¹ to determine the extent of any cost or pricing data deficiencies and to identify appropriate corrective actions. Martin's self-audit revealed that proposed material costs on the CNCE contract may have been overstated by as much as \$4.1 million, including overhead and profit. Since Martin's self-audit was performed after we completed our work, we did not evaluate the results.

¹In December 1985, in response to our work and its own self-audit, Martin initiated actions to correct systemic problems in its procurement estimating system. The actions include: computer-assisted handling of vendor quotations, revisions to pricing policies and detailed procedural guidelines, training programs, and management controls. Martin believes these improvements will preclude cost or pricing data submission problems in the future.

Our work and Martin's self-audit confirm that certain cost and pricing data that should have been provided to the contracting officer before the conclusion of prime contract negotiations was not, in fact, provided. Martin officials believe that no increase in the contract price resulted from the deficient cost or pricing data because the contracting officer did not rely on the data in negotiating the price. However, the contracting officer's price negotiation memorandum states that Martin's cost or pricing data was used in negotiating the price.

We believe the information in this report provides a basis for you to initiate action to recover these funds from Martin and recommend that you take such action. We would appreciate being informed of the actions taken. If you need additional information please call me or John Smith on (404) 331-4616.

Copies of this report are being sent to the President, Martin Marietta Orlando Aerospace; the Commander, Defense Contract Administration Services Region, Atlanta, Georgia; the Atlanta Regional Director, Defense Contract Audit Agency; and the DOD Office of the Inspector General, Washington, D.C. Copies will also be available to others upon request.

We would also like to express our appreciation for the courtesy and cooperation extended to us by both the Systems Division and Martin.

Sincerely yours,



Paul F. Math
Associate Director

Subcontract Prices Included in Martin's CNCE Phase II Production Program Contract

Background

The Truth in Negotiations Act, Public Law 87-653 (10 U.S.C. 2306(f)) requires that, with certain exceptions, contractors submit cost or pricing data in support of proposed prices for noncompetitive contracts. Contractors are also required to certify that the data submitted are accurate, complete, and current. In cases where Public Law 87-653 is applicable, a clause is included in the contract which gives the government a right to a price reduction if it is determined that the price was overstated because the data submitted were not in accordance with the statute and the certification.

The Air Force awarded firm fixed-price contract F19628-83-C-0051 to Martin for 58 CNCEs and spares under a basic buy and 3 options,¹ shown in table I.1.

Table I.1: Contract Prices

	CNCEs	Negotiated price
Basic buy	7	\$147,300,000
Option I	20	85,300,000
Option II	17	53,200,000
Option IV	14	34,100,000
Total	58	\$319,900,000

The Air Force and Martin agreed to the contract price for the basic buy and options on July 13, 1984. Martin executed a Certificate of Current Cost or Pricing Data for the contract and certified that data supplied to the government were accurate, complete, and current as of July 13, 1984.

Noncompliance With Public Law 87-653 Results in Overstated Prices

Martin did not submit accurate or current data for parts to be purchased from seven subcontractors. As shown in table I.2, it overstated the prices for five subcontractors and understated the prices for two others. The net overstatement is as much as \$962,192, including overhead and profit.

¹A planned option III buy of long leadtime material for option IV was not negotiated. The basic buy was executed on August 1, 1984, by modification P00020 to contract F19628-83-C-0051; the option I buy was executed on October 31, 1984, by modification P00022; and the option II buy was executed on October 31, 1985, by modification P00035. The option IV buy is scheduled to be executed in November 1986.

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Table I.2: Overstated Material Costs

Subcontractor	Subcontract cost	Added costs		Overstatement
		Overhead	Profit	
Zeus Components, Inc.	\$302,433	\$150,535	\$ 54,376	\$507,344
RFI Corporation	175,500	82,419	30,950	288,869
Sanders Instruments, Inc.	147,506	80,729	27,452	255,687
Frequency and Time Systems, Inc.	134,373	66,507	24,119	224,999
Dataproducts New England, Inc.	7,200	3,674	1,305	12,179
Hughes Aircraft Company, Connecting Devices Division	(14,683)	(7,619)	(2,682)	(24,984)
TRW, Inc.	(177,704)	(91,842)	(32,356)	(301,902)
Total	\$574,625	\$284,403	\$103,164	\$962,192

The overstatements resulted because Martin made errors and omissions in the data submitted to the government. A detailed discussion of each subcontractor follows.

Zeus Components, Inc.

Martin proposed to provide various quantities of 10 electronic parts for both the basic buy and the 3 options for \$1,318,108 based primarily on January 27, 1984, noncompetitive price quotes by Zeus. Before the agreement on the prime contract price on July 13, 1984, however, Martin obtained lower, competitively priced quotes on seven parts, higher quotes on two parts, and had purchased the other part at a lower unit price from another subcontractor. None of the newer quotes and prices were disclosed to the government. As a result, we believe that proposed contract costs were overstated by \$507,344 (\$77,811 (net) for the basic buy and as much as \$429,533 for the options).

As shown in table I.3, we believe that costs for the basic buy were overstated by \$77,811, including overhead and profit. The current unit prices for the parts are based either on competitively priced quotes obtained by Martin between April and July 3, 1984, or an actual price paid by Martin on March 28, 1984.

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Table I.3: Overstated Prices on Zeus Parts for Basic Buy

Part number	Quantity requirements	Unit prices			Overstatement
		Proposed	Current	Difference	
M38510/10401BCB	9,199	\$ 8.76	\$ 5.91	\$2.85	\$26,217
10802BCB	2,136	14.46	9.00	5.46	11,663
10102BCB	2,010	4.46	4.25	.21	422
10304BCB	899	17.50	12.65	4.85	4,360
30109BEB	5,417	2.15	2.05	.10	542
31512BEB	1,681	4.25	3.35	.90	1,513
31402BEB	2,202	3.52	3.10	.42	925
31504BEB	2,661	3.68	3.30	.38	1,011
30001BCB	4,216	1.73	1.84	(.11)	(464)
30003BCB	4,186	1.73	1.84	(.11)	(460)
Total					45,729
Overhead and profit					32,082
Total					\$77,811

We believe that the costs for parts included in the option buys were similarly overstated because Martin did not disclose that they had obtained lower quotes and prices. Even though the new quotes and prices applied only to the basic buy, the fact that Martin had obtained lower quotes and prices was pertinent cost or pricing data that should have been disclosed to the contracting officer. Section 3-807.1(a) of the Defense Acquisition Regulation provides that cost or pricing data includes all factual data which can be reasonably expected to contribute to sound estimates of future costs and which prudent buyers and sellers would reasonably expect to have a significant effect on price negotiations. In our opinion, information showing that competitively established or actual prices for the basic buy were lower than the noncompetitive prices quoted by Zeus was significant and pertinent cost or pricing data for pricing the option quantities because it showed that lower prices would likely be achieved.

To calculate the extent of overstated costs for the options, we calculated the percentage by which the parts were overstated for the basic buy and applied the percentages to the unit prices proposed for the options as shown in table I.4.

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**Table I.4: Overstated Prices on Zeus
Parts for Option Buys**

	Overstatement
Option I	\$ 87,995
Option II	168,658
Option IV	51
Total	256,704
Overhead and profit	172,829
Total overpricing	\$429,533

Martin officials agreed with the overstatement of \$77,811 for the basic buy but disagreed with our calculations of the overstated prices for options I, II, and IV. They said that since no purchase orders had been issued to or quotations received from other vendors for the option years, the quotes from Zeus represented the most accurate, complete, and current cost or pricing data available. They also said that there was no assurance or reason to believe that prices similar to those achieved for the basic buy could be achieved for the options.

RFI Corporation

Martin proposed to provide radio frequency interference dual filters (part number 68399430-001) for \$1,767,659 based on an April 20, 1984, quote from RFI, increased by Martin's estimates of escalation for 1984, 1985, and 1986. The proposed bill of materials for option II included long leadtime requirements which were also included in the proposed bill of materials for option IV. To eliminate the duplication of costs, Martin made an adjustment to the option IV costs for the long leadtime requirements. The adjustment included 23,400 of the RFI filters at a unit price of \$24.00, or a total cost of \$561,600. However, the filters were included in the proposed costs for option IV at a unit price of \$31.50, or a total cost of \$737,100. Martin, therefore, erred in adjusting the option IV cost by \$7.50 a unit. As a result, proposed costs for option IV were overstated by \$288,869, including overhead and profit.

Martin officials agreed with the overstatement of \$288,869.

Sanders Instruments, Inc.

Martin proposed to provide various quantities of four telecommunications modules for the basic buy and options for \$1,422,958, based on unit prices negotiated with Sanders on February 28, 1984. Martin's proposal for the basic buy was overstated by \$255,687, including overhead and profit, because Martin priced requirements for production and spare

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parts separately instead of combining the requirements to take advantage of lower prices available from Sanders for larger quantities.

For example, Martin proposed a unit price of \$1,538.81 for 87 production units of part number 68399108-001 and a unit price of \$2,710.24 for 21 spare units, which were the unit prices negotiated with Sanders for the quantities purchased separately. However, Martin had also negotiated a unit price of \$1,272.49 with Sanders for 108 units, which is \$266.32 lower than the price proposed for the 87 production units and \$1,437.75 lower than the price proposed for the 21 spare units. Martin did not tell the contracting officer that lower prices were available if larger quantities were purchased. The overstated prices for the four parts are shown in table I.5.

Table I.5: Overstated Prices on Sanders Parts for Basic Buy

Part number	Requirements		Unit prices		Overstatement	
	Purpose	Quantity	Proposed (separate)	Combined purchases	Unit prices	Total costs
68399108-001	Production	87	\$1,538.81	\$1,272.49	\$ 266.32	\$ 23,170
	Spares	21	2,710.24	1,272.49	1,437.75	30,193
68399109-001	Production	17	4,294.66	3,324.17	970.49	16,498
	Spares	7	9,218.86	3,324.17	5,894.69	41,263
68399113-001	Production	10	2,411.62	1,736.48	675.14	6,751
	Spares	7	3,250.57	1,736.48	1,514.09	10,599
68399301-001	Production	10	2,544.42	1,798.03	746.39	7,464
	Spares	7	3,450.57	1,798.03	1,652.54	11,568
Total						147,506
Overhead and profit						108,181
Total						\$255,687

Martin officials did not agree that proposed costs for the basic buy were overstated, but did state that their self-audit showed that proposed costs for one part in option IV were overstated by a total of \$1,318. The officials said that separate procurements were planned (production parts in May 1984 and spare parts in August 1984) because long lead-time funds were not adequate for combining the procurements. The officials did not, however, provide data showing that available funds were inadequate. In addition, the contracting officer said that he was not aware of funding shortages and the contractor did not furnish data showing that significant savings were available by combining the requirements.

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**Frequency and Time
Systems, Inc.**

Martin proposed to provide cesium beam clocks, part number 68392008-001, for \$1,491,590, based on a February 24, 1984, quote from Frequency and Time Systems. However, on May 23, 1984, before the prime contract price was established, Martin awarded a subcontract to Frequency and Time Systems for \$1,357,217, but did not disclose the award to the contracting officer. Martin's proposed costs, therefore, were overstated by \$224,999, including overhead and profit, as shown in table I.6.

Table I.6: Overstated Prices on Frequency and Time Systems, Inc., Parts

Buy	Requirements	Unit prices			Overstatement
		Proposed	Actual	Difference	
Basic buy	10	\$24,402	\$21,340	\$3,062	\$ 30,620
Option I	20	23,100	21,340	1,760	35,200
Option II	11	25,110	22,407	2,703	29,733
Option IV	20	25,468	23,527	1,941	38,820
Total					134,373
Overhead and profit					90,626
Total					\$224,999

Martin officials agreed that their proposed costs were overstated by \$224,999.

**Dataproducts New England,
Inc.**

Martin proposed to provide line conditioning equipment for \$1,211,915, based on unit prices negotiated with Dataproducts in March 1984. However, it erroneously proposed a higher than negotiated unit price for one part and a lower than negotiated unit price for another part. The net result of the errors was that proposed costs were overstated by \$12,179, including overhead and profit.

Martin's proposal for option I included \$130,200 for 120 units of part number 68399111-001. The proposed costs were based on the unit price of \$1,085 it had negotiated with Dataproducts for 120 units. However, the total requirement for the option, including spares, was 160 units and the unit price negotiated with Dataproducts for that quantity was \$1,006. As a result, the proposed unit price was overstated by \$79 and proposed costs were overstated by \$16,034, including overhead and profit.

Martin's proposal for option I also included \$17,800 for 20 units of part number 68399110-001. The proposed costs were based on the unit price

of \$890 negotiated with Dataproducts for 30 to 40 units. The unit price negotiated with Dataproducts for 20 units, however, was \$1,004. Therefore, the unit price was understated by \$114 and proposed costs were understated by \$3,855, including overhead and profit.

Martin officials agreed that proposed prices for the parts were inaccurate because of the errors, but stated that their self-audit showed that proposed costs for the two parts, including spares which were not covered by our review, were overstated by about \$17,519, including overhead and profit.

Hughes Aircraft Company

Martin proposed to provide cable assemblies for \$3,281,856, based on unit prices negotiated with Hughes. However, in adjusting its original proposal, Martin reduced material costs at higher unit prices than proposed. As a result, Martin's adjusted proposal was understated by \$24,984, including overhead and profit.

The proposed bill of materials for the basic buy included 344 units of part number 1143801S at \$544 a unit—the price negotiated with Hughes. However, in an adjustment to its proposed costs, Martin deleted 84 units at a unit price of \$591.80, or \$47.80 higher than the proposed unit price. Therefore, costs for the part were understated by about \$4,015.

The proposal also included 168 units of part number 1143898S at \$2,043 a unit. Martin adjusted its proposal by deleting 42 units at a unit price of \$2,297, which is \$254 higher than the proposed unit price. Costs for the part, therefore, were understated by \$10,668.

Martin officials agreed with the understatement of \$24,984, including overhead and profit.

TRW, Inc.

Martin proposed to provide part number 68391012-001 for the basic buy and options for \$65,844, based on a quote from TRW, Inc. Martin officials could not furnish data supporting proposed unit prices for the part. However, they did provide July and September 1983 quotes from TRW which showed higher prices than those proposed. Martin officials also provided information showing that they actually paid higher unit prices for the part after the prime contract was priced. In addition, they provided a TRW message stating that TRW had never quoted the lower unit prices included in Martin's proposal. Using the data from the July 1983

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quote, we believe that the proposed prices for the parts were understated by \$301,902, including overhead and profit, as shown in table I.7.

Table I.7: Understated Prices for TRW Parts

Buy	Requirements	Unit prices			Understatement in costs
		Proposed	Claimed	Difference	
Basic buy	752 ^a	\$15.17	\$49.94	\$34.77	\$ 26,147
Option I	1,710 ^a	12.93	49.52	36.59	62,569
Option II	1,009	14.50	54.47	39.97	40,330
Option IV	1,130	15.66	58.72	43.06	48,658
Total					\$177,704
Overhead and profit					124,198
Total					\$301,902

^aIncludes spare parts.

Martin Actions to Eliminate Systemic Problems

In addition to commenting on our specific findings, Martin officials also provided information on (1) their self-audit of about 100 percent of the proposed costs for purchased parts, (2) their reasons for believing that the contracting officer did not rely on any defective cost or pricing data and that the contract price was not increased by such data, and (3) the estimating system changes they made to avoid contract pricing problems in the future.

The results of Martin's self-audit and estimating system changes are summarized below. Martin's comments about the impact of defective cost or pricing data on the contract price and our related conclusions and recommendations are also summarized below. We did not have an opportunity to evaluate the detailed results of the self-audit and the effectiveness of the estimating system changes because they were accomplished after our review was completed.

Internal Audit Results and Impact on Contract Price

Martin officials said that their self-audit showed that proposed costs for purchased parts may have been overstated by as much as \$4,089,000 because supporting cost or pricing data was not accurate, complete, and current. That amount includes \$2,882,000 Martin attributed to defective cost or pricing data and \$1,207,000 it attributed to their judgments and estimates which company officials do not consider cost or pricing data, as defined in the statute and regulations. Martin included the latter

amount, however, in the interest of full disclosure since there may be different opinions about the definition of cost or pricing data.

Martin officials stated the maximum potential impact of the overstatement was an increase of \$3,738,000 in the contract price. The potential impact is calculated by decreasing the \$4,089,000 overstatement about 8.6 percent—the percentage difference between the total negotiated contract price and Martin's total proposed price. Martin believes that since their proposal was reduced by about 8.6 percent during contract negotiations, the government has, in effect, already recovered \$351,000 of the overstatement.

Martin officials told us that the company stands ready to reimburse the government for any impact on the final negotiated contract price caused by its failure to provide the most current cost or pricing data. Martin officials do not believe, however, that the contract price was increased by the overstated prices because the contracting officer did not rely on the data as evidenced by the offer of a bottom-line settlement which included lower costs for materials than proposed by Martin. The contracting officer's memorandum of contract negotiations, on the other hand, states that the cost or pricing data furnished by Martin was relied on in developing the negotiated contract price.

Estimating System Changes

Our work, combined with Martin's self-audit, revealed that improvements were needed in the company's estimating system to preclude future cost or pricing data problems. Accordingly, Martin initiated corrective actions affecting procurement estimating controls, company-wide policies and procedures, personnel training, and management practices and controls.

We have not evaluated the effectiveness of the estimating system changes. We believe, however, that because of the types of actions initiated by Martin, the changes could represent a significant and positive step toward ensuring that future proposed contract prices are based on accurate, complete, and current cost or pricing data.

Objective, Scope, and Methodology

Our objective was to determine if subcontract costs included in prime contract prices were fair and reasonable. As part of this effort, we assessed whether Martin complied with Public Law 87-653 in providing

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accurate, complete, and current cost or pricing data for selected subcontracted items. We conducted our review at the Martin Marietta Corporation, Martin Marietta Orlando Aerospace, Orlando, Florida; the Defense Contract Administration Services and the Defense Contract Audit Agency resident offices at Martin; and the Electronic Systems Division, Hanscom AFB, Massachusetts.

We reviewed prime contract file documentation, negotiation records, purchase order files, and related price proposals. We also interviewed contractor representatives and government officials responsible for procurement, contract administration, and contract audit. We limited our review to a judgmentally selected sample of parts and subcontractors. With the exception of parts to be purchased from TRW, Inc., and Sanders Instruments, Inc., we did not review investment spares.

We calculated overhead and profit costs using factors proposed by Martin.

Our review was conducted between March and August 1985 in accordance with generally accepted government auditing standards.



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