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United States General Accounting Office

**GAO**

Report to Commander, U.S. Air Force  
Aeronautical Systems Division

November 1987

# CONTRACT PRICING

## Overpriced B-1B Bomber Avionics Subcontract



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**Seattle Regional Office**

B-219741

**Room 1992, Jackson Federal  
Building  
915 Second Avenue  
Seattle, WA 98174**

November 30, 1987

**Lieutenant General William E. Thurman  
Commander, Aeronautical Systems Division  
Wright-Patterson Air Force Base, Ohio 45433-6503**

Dear General Thurman:

We have completed a subcontract pricing review at Sundstrand Data Control, Inc. (Sundstrand) Redmond, Washington. We examined material pricing on a Sundstrand subcontract awarded by the Boeing Military Airplane Company (Boeing) in Seattle, Washington, for the B-1B Lot V offensive avionics production, contract number F33657-81-C-0213. Our objective was to determine whether Sundstrand provided Boeing with complete, accurate, and current cost or pricing data as required by the Truth in Negotiations Act, Public Law 87-653.

We determined that Sundstrand did not provide Boeing with accurate, complete, and current cost or pricing data. Boeing, after analysis and negotiation, included the resulting Sundstrand subcontract price in its proposal to the government. As a result, the price of the prime contract was overstated by \$373,957, including overhead and profit.

Sundstrand agreed that it had not disclosed complete, accurate, and current cost or pricing data on a number of the parts we reviewed. On other parts, Sundstrand stated that disclosure had been made or circumstances were such that the overpricing was less than calculated. Sundstrand's comments and our responses are presented in appendix I.

Boeing stated that a thorough review of its records, plus considerable coordination with Sundstrand, would be required before it could determine whether defective pricing had occurred. Boeing stated that it had not completed such a review and thus was unable to comment on our findings. An Air Force contract negotiation official stated that they relied upon the subcontract Boeing negotiated with Sundstrand and accepted the cost as submitted.

We believe the information presented in this report provides a basis for you to initiate action to recover these funds from Boeing<sup>1</sup> and recommend you take such action. We would appreciate being advised of any

<sup>1</sup>Boeing, as the prime contractor and the only entity having privity of contract with the government, is financially responsible for any defective pricing caused by its subcontractors.

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actions taken on this matter. If you or your staff need additional information, please call Mr. Neil Asaba, (206) 442-5356.

We are sending copies of this report to the Secretary of the Air Force; the B-1B Contracts Manager and Material Manager, B-1B Program, Boeing Military Airplane Company, Seattle, Washington; Controller, Sundstrand Data Control, Inc., Redmond, Washington; Director of Aerospace Pricing, Sundstrand Corporation, Rockford, Illinois; Department of Defense, Office of Inspector General, Arlington, Virginia; Regional Director, Defense Contract Audit Agency, San Francisco, California; Branch Manager, Defense Contract Audit Agency, Seattle, Washington; Commander, Defense Contract Administration Services Region, El Segundo, California; and Commander, Oklahoma City Air Logistics Center, Tinker Air Force Base, Oklahoma. Copies will also be made available to other interested parties upon request.

Sincerely yours,



John P. Carroll  
Regional Manager



# Noncompliance With Public Law 87-653 Resulted in Overstated Subcontract Prices for B-1B Avionics

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## Background

The Truth in Negotiations Act, Public Law 87-653, as amended, requires that with certain exceptions, contractors and subcontractors submit cost or pricing data to support proposed prices for noncompetitive contracts. Contractors and subcontractors are also required to certify that the data submitted are accurate, complete, and current. When Public Law 87-653 is applicable, the government has a right to obtain a price reduction from the prime contractor if it is determined that the prime's price was overstated because the data submitted by either the prime or subcontractor were not in accordance with the statute and the certification. The prime contractor, in turn, has a contractual right to obtain a reduction for any defective pricing caused by its subcontractor.

The Air Force awarded a noncompetitive fixed-price-incentive-fee contract, F33657-81-C-0213, to the Boeing Military Airplane Company (Boeing) in August 1985 for the production of B-1B Lots IV and V offensive avionics. The negotiated target price was \$953,969,000. Part of the contract called for Boeing to supply magnetic tape transports, mounts, and control units for transferring data from ground-based systems to aircraft systems on the B-1B. Boeing subcontracted the production of these items in a firm-fixed-price contract with Sundstrand Data Control, Inc. (Sundstrand). The subcontract was signed on June 21, 1984 for a price of \$17,328,154. Boeing exercised options from B-52 Memorandum of Agreement clauses with Sundstrand to fulfill the requirements for B-1B Lot IV and a portion of Lot V. We limited our review to the procurement of Lot V which totalled \$7,283,270.

Sundstrand executed a Certificate of Current Cost or Pricing Data on June 26, 1984 certifying that data disclosed to Boeing were accurate, complete, and current as of June 21, 1984. Boeing executed a Certificate of Current Cost or Pricing Data, including data from Sundstrand, on July 12, 1985, certifying that data supplied to the government were accurate, complete, and current as of June 27, 1985.

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## Nondisclosure of Required Data Results in Overstated Prices

Sundstrand did not disclose complete, accurate, and current cost or pricing data to Boeing. As a result, the price of prime contract F33657-81-C-0213, was overstated by \$373,957, including profit and overhead. We examined 42 parts that constituted about 76 percent of the cost of material included in Sundstrand's proposal. We found that the prices of 28 of the 42 parts were overstated because Sundstrand

- included the costs of one part twice in its proposal,

**Appendix I  
Noncompliance With Public Law 87-653  
Resulted in Overstated Subcontract Prices for  
B-1B Avionics**

- did not disclose to Boeing that it had issued purchase orders for 5 parts at prices lower than those it had proposed,
- proposed higher prices on 9 parts by adding inflation, although the purchase order prices were already established,
- used higher-priced quotations for four parts when less costly quotations were available,
- proposed prices for eight parts that did not take advantage of available quantity discounts, and
- priced one part based on an incorrect number of units.

Table I.1 presents a summary of overstated cost to the government because of noncompliance with Public Law 87-653.

**Table I.1: Overstated Costs to the Government**

<b>Category</b>	<b>No. of Parts</b>	<b>Overstatement</b>
Duplicate costs	1	\$177,055
Lower purchase order prices	5	108,777
Unnecessary inflation	9	14,265
Higher priced quotes	4	31,499
Quantity discounts not considered	8	40,930
Incorrect number of units	1	1,431
<b>Total overstated cost</b>	<b>28</b>	<b>\$373,957<sup>a</sup></b>

<sup>a</sup>This amount includes profit and overhead for Boeing and Sundstrand.

**Costs of Part Included Twice**

Sundstrand submitted inaccurate data to Boeing when it included the cost of one part twice—once for buying it from a supplier and again for making some of them. As a result, Sundstrand’s proposal was overstated by \$177,055, including overhead and profit.

Sundstrand told Boeing it planned to buy all 510 heads that would be used to fabricate 255 transports (2 heads for each transport) and priced its bill of material accordingly. Sundstrand also included in its bill of material parts to fabricate 193 heads. These parts, however, were not necessary because Sundstrand planned to buy all the heads. Sundstrand also included labor for the 193 heads and this labor was also unnecessary.

Boeing could not identify the error because Sundstrand did not specify what material was included for fabricating the 193 heads nor did it identify the related labor. Boeing officials stated they were not aware

**Appendix I  
 Noncompliance With Public Law 87-653  
 Resulted in Overstated Subcontract Prices for  
 B-1B Avionics**

that Sundstrand had included unnecessary parts and labor in its proposal.

Sundstrand agreed that it duplicated costs when it proposed buying all of the heads as well as including labor and material for making 193 of them. Sundstrand noted, however, that it did not have access to Boeing or Defense Contract Audit Agency records or personnel and, as a result, was not prepared to admit liability. Sundstrand stated that when agreement on the facts and the amount of liability is reached, it will pay any monies due.

**Failure to Disclose Lower Prices on Issued Purchase Orders**

Sundstrand did not disclose lower prices on purchase orders it had issued for five parts. Instead, Sundstrand used quotations that were significantly higher—from 6.4 to 183.8 percent higher. Boeing officials responsible for the negotiations stated they did not know Sundstrand had issued purchase orders. As a result, Sundstrand's proposal was overstated by \$108,777, including both Boeing's and Sundstrand's add-ons<sup>1</sup>. Table I.2 presents details on the five parts.

**Table I.2: Available Prices on Issued Purchase Orders Lower Than Proposed Prices**

Part Number	Proposed Price	Price Available	Difference <sup>a</sup>	Quantity	Overstatement <sup>a</sup>
310-0430-002	\$295.15	\$151.95	\$143.20	125	\$17,900
316-5138-002	75.43	70.91	4.52	900	4,064
321-1708-001	177.28	62.47	114.81	500	57,405
322-0276-001	49.24	30.39	18.85	500	9,427
440-0403-006	166.46	66.56	99.90	200	19,981
<b>Total overstatement to the government including Boeing's and Sundstrand's add-ons</b>					<b>\$108,777</b>

<sup>a</sup>The calculated overstatement in tables I.2, I.3 and I.4 may not always equal the difference multiplied by the quantity because of rounding. Also, the calculated difference may not always equal the proposed price minus the available price because of rounding.

Sundstrand officials stated they could not determine whether the purchase order prices for three parts were disclosed to Boeing and assumed the purchase order prices of the other two were orally disclosed. Sundstrand disagreed with the way we calculated the amount of overpricing on four of the parts and pointed out that it had provided data showing

<sup>1</sup>The term "add-ons" as used in this report refers to the combined amounts added by Boeing and Sundstrand to the basic cost of the parts for such things as overhead, estimated economic inflation, allocations of interest expense associated with loans for new warehouse facilities, and profit.



lower prices on some of the parts and expressed the view that this represented disclosure. Sundstrand's argument reduces the proposed prices in table I.2 as well as the amounts overstated.

We agree that Sundstrand provided data showing lower prices for three parts. However, Sundstrand subsequently provided more current and higher priced quotes for the five parts in an updated bill of material. The updated bill of material, which was the data relied upon by Boeing to negotiate the subcontract price, superseded the earlier data. Accordingly, we calculated the amount of overstatement using the same higher cost data Sundstrand used to update its bill of material. Further, we found no documentation in Boeing's files showing that the disclosures Sundstrand assumed had been made were in fact made. Boeing officials stated that the updated bill of material was the basis of negotiations and price agreement.

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**Inflation Added to  
Establish Purchase Order  
Prices**

Sundstrand increased the already established prices on purchase orders for 9 parts by adding a factor for inflation. For example, the purchase order price of part 321-0912-001, obtained by Sundstrand, was \$132 per unit. However, Sundstrand proposed a unit price of \$135.56, or \$3.56 more. For all 9 parts, the increase per unit made by Sundstrand ranged from a low of \$.17 to a high of \$3.56. As a result, the prices of the 9 parts were overstated by \$14,265 including both Boeing's and Sundstrand's add-ons. Sundstrand agreed with the cost impact of this nondisclosure.

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**Higher Priced Quotations  
Used Although Lower  
Quotations Were Available**

Sundstrand did not provide complete and accurate data to Boeing because it did not disclose lower price quotations obtained from its current supplier. Instead, Sundstrand proposed higher prices based on quotations from higher priced suppliers it had not used for 9 months. For example, Sundstrand proposed a higher price per unit of \$15.33, including both Boeing's and Sundstrand's add-ons, for part number 400-0120-001, based on May 1984 quotations from a previous supplier. However, between September 1983 and June 1984 Sundstrand procured this part 4 times from its new supplier at \$5.27 each, including both Boeing's and Sundstrand's add-ons. Sundstrand followed these procedures on all 4 parts and, as a result, the total overstatement due to the incomplete data submission was \$31,499, as shown in Table I.3.

**Appendix I  
Noncompliance With Public Law 87-653  
Resulted in Overstated Subcontract Prices for  
B-1B Avionics**

**Table I.3: Lower Price Quotations Available but Not Disclosed**

Part Number	Price Proposed	Price Available	Difference <sup>a</sup>	Quantity	Overstatement <sup>a</sup>
400-0120-001	\$15.33	\$5.27	\$10.06	510	\$5,129
400-0120-006	15.26	5.38	9.88	1,020	10,081
400-0120-009	15.92	5.20	10.72	510	5,465
400-0120-010	16.44	5.83	10.61	1,020	10,824
<b>Total overstatement to the government including Boeing's and Sundstrand's add-ons</b>					<b>\$31,499</b>

<sup>a</sup>Same as note "a" on table I.2.

Sundstrand officials stated that it is likely Boeing and the Defense Contract Audit Agency were aware of prices from Sundstrand's new supplier because they routinely requested and were provided Sundstrand's purchase order history printout. Boeing officials told us that they were not aware of the new supplier. The Defense Contract Audit Agency did review the purchase order history printout as part of its pre-award audit. However, the audit included parts that represented about 70 percent of the proposed material cost and these parts were not included. Therefore, the audit agency was not aware of prices from the new supplier.

We recognize that the purchase order history printout could have been used to identify prices from the new supplier. However, this printout contains prices for all parts purchased over a 3-year period. Thus, the printout comprised hundreds of pages and included prices for thousands of parts, and a detailed audit assessment would have been required to identify overpricing. Sundstrand was required to directly disclose the lower quotations to Boeing. Simply providing a copy of its voluminous purchase order history printout does not fulfill the disclosure requirement.

**Prices Proposed Without Consideration of Available Quantity Discounts**

Sundstrand did not disclose accurate data to Boeing because the prices it proposed for 8 parts did not reflect available quantity discounts. Instead, Sundstrand priced parts separately each time. For example, Sundstrand needed 625 integrated circuits to produce 125 control units and 125 mounts. Sundstrand priced the 250 integrated circuits for the 125 control units (2 per unit) using a supplier quotation of \$57.78 a part, including Boeing's and Sundstrand's add-ons, for quantities of 100 to 499 units. Sundstrand priced the 375 integrated circuits required for the 125 mounts, (3 per mount) using the same quotation. However, the supplier also quoted a price for quantities of 500 to 999 units of \$45.43,

**Appendix I  
Noncompliance With Public Law 87-653  
Resulted in Overstated Subcontract Prices for  
B-1B Avionics**

or \$12.35 less when both Boeing's and Sundstrand's add-ons are considered. Therefore, Sundstrand should have used the \$45.43 price for the 625 parts. The total overstatement for the 8 parts was \$40,930, as shown in table I.4.

**Table I.4 Parts Where Available Discounts Were Not Disclosed**

Part number	Used in	Unit Price		Difference <sup>a</sup>	Quantity required	Overstatement <sup>a</sup>
		Proposed	Available			
316-5138-005	Control Unit Mount	\$57.78	\$45.43	\$12.35	250	\$3,086
		57.78	45.43	12.35	375	4,630
321-0174-002	Control Unit Mount	7.28	7.28	-0-	1,875	-0-
		7.70	7.28	0.42	125	52
321-0174-028	Control Unit Mount	7.28	7.28	-0-	625	-0-
		7.70	7.28	0.42	125	52
380-0083-006	Control Unit Mount	58.95	55.49	3.47	125	433
		58.95	55.49	3.47	250	867
316-5138-009	Control Unit Mount	89.16	47.86	41.30	250	10,326
		47.86	47.86	-0-	1,250	-0-
344-0365-004	Control Unit Mount	7.94	7.94	-0-	6,500	-0-
		8.39	7.94	0.45	4,500	2,029
360-0084-003	Transport	690.11	651.97	38.15	255	9,727
360-0084-004	Transport	690.11	651.97	38.15	255	9,727
<b>Total overstatement to the government including Boeing's and Sundstrand's add-ons</b>						<b>\$40,930</b>

<sup>a</sup>Same as note "a" on table I.2.

Sundstrand confirmed that quantity discount prices were available for the parts shown in table I.4. Sundstrand stated that when agreement on the facts and the amount of liability is reached, it will pay any monies due.

**Sundstrand Used an Erroneous Higher Price From a Quotation**

Sundstrand submitted inaccurate data to Boeing when it used a quotation for the incorrect number of units required for the subcontract. The subcontract called for 1,250 diodes and Sundstrand priced this part using a supplier quotation of \$19.80 per part in quantities of 1 to 1,000, including Boeing's and Sundstrand's add-ons. The supplier also quoted a price for quantities of 1,001 to 2,000 parts; this price — including Boeing's and Sundstrand's add-ons — was \$18.66, or \$1.14 less per part than Sundstrand used in pricing the proposal. As a result, the proposal was overstated by \$1,431. (See note a table I.2.)

Sundstrand disagreed because it believes adequate disclosure was made. Sundstrand's position is based on providing Boeing two documents that

included information that could have been used to identify the error. However, Boeing would have had to audit the 161 part numbers that Sundstrand indicated were based on vendor quotations. Consequently, Sundstrand's error was not readily apparent to Boeing. As indicated earlier, the disclosure requirement is not fulfilled by providing a "mass of data" or "voluminous files" without explaining its significance.

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## **Objective, Scope and Methodology**

Our objective was to determine if Sundstrand complied with Public Law 87-653 by providing accurate, complete, and current cost or pricing data. We conducted our review at Sundstrand in Redmond, Washington; Boeing in Seattle, Washington; and obtained information from contracting officials at Aeronautical Systems Division, Wright-Patterson Air Force Base, Ohio.

We reviewed subcontractor price proposals, contract file documentation, negotiation records, and purchase order files. We also reviewed prime contract file documentation and negotiation records. We interviewed appropriate contractor representatives and government officials responsible for procurement and proposal cost analysis.

We limited our review to selected subcontract material costs. For the items reviewed, we analyzed the bill of material and compared supplier quotations proposed with subcontractor purchase order history.

Our review was conducted between November 1986 and June 1987 in accordance with generally accepted government auditing standards.

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