

DOCUMENT RESUME

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[Pricing of Northrop Corporation Contract F33657-74-C-0041].
PSAD-77-134; B-118720. July 11, 1977. 8 pp.

Report to Secretary, Department of Defense; by Richard 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 -
Procurement & Contracts (058).

Organization Concerned: Department of the Air Force:
Aeronautical Systems Div., Wright-Patterson AFB, OH;
Northrop Corp.: Aircraft Div., Hawthorne, CA.

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

Authority: P.L. 87-653.

A fixed-price incentive contract awarded to Northrop Corporation for development of two F-5F aircraft was examined to determine the reasonableness of the contract price in relation to supporting cost data and whether legislative requirements were implemented. The contract included a clause which permits the contracting officer to reduce the contract price if it was increased by a significant sum because the certified cost or pricing data was not current, complete, and accurate. Findings/Conclusions: Northrop proposed \$4,242,000 for production material and purchased parts primarily on the basis of vendor price quotations and prior procurement history. GAO found that proposed and negotiated costs were higher than indicated by available data prior to contract negotiations. These included amounts of \$795,791 for the environmental control system, \$49,885 for fire control radar, and \$80,260 for the canopy. Overstated costs included applicable add-on pricing factors and profit. Proposed and negotiated overhead rates were also higher than indicated by data. There was no evidence that the contractor disclosed current, complete, and accurate cost or pricing data prior to negotiations. The target price of the contract was found to be overstated by a total of about \$3 million. Recommendations: The Aeronautical Systems Division should determine whether the Government is entitled to a price adjustment under the contract. The Air Force should determine the impact of the nondisclosure of negotiated forward pricing rate agreements and the effect on the pricing of Government contracts awarded to Northrop in recent years. (HTW)



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

PROCUREMENT AND SYSTEMS
ACQUISITION DIVISION

JUL 11 1977

B-118720

The Honorable
The Secretary of Defense

Dear Mr. Secretary:

We have examined into the price proposed and negotiated for fixed-price incentive contract F33657-74-C-0041 awarded to Northrop Corporation, Aircraft Division, Hawthorne, California, by the Air Force, Aeronautical Systems Division (ASD). The contract provided for the full scale development of two F-5F aircraft and was awarded on October 5, 1973, at a target price of \$45,950,000.

Our objective was to determine the reasonableness of the contract price in relation to the contractor's supporting cost or pricing data, and whether the requirements of Public Law 87-653 were effectively implemented. The examination was part of a nationwide review of the pricing of Department of Defense (DOD) negotiated noncompetitive prime contracts. Individual contract reviews represent part of our efforts to monitor DOD's adherence to prescribed laws, regulations, and procedures in negotiating noncompetitive contract prices.

Our review disclosed that the target price of contract -0041 was overstated by about \$3 million including applicable add-on pricing factors and profit, principally because the contractor did not disclose current, complete, and accurate cost or pricing data prior to negotiations. Recommendations for agency action are on page 7 of this letter.

BACKGROUND

Northrop submitted an unsolicited price proposal to ASD on June 18, 1973, for full scale development of two F-5F aircraft in the amount of \$43,507,000. On June 27th, Northrop revised the price to \$43,069,000. The proposed price was increased on three subsequent occasions prior to negotiations. The initial price proposal was evaluated by resident Air Force Plant Representative (AFPR) and Defense Contract Audit Agency (DCAA) staff. Contract negotiations were completed on August 16, 1973, and Northrop executed a Certificate of Current Cost or Pricing Data on August 29, 1973. The contract included a clause which permits the contracting officer

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to reduce the contract price if it was increased by a significant sum because the certified cost or pricing data was not current, complete, and accurate.

RESULTS OF REVIEW

Production material and purchased parts

Northrop proposed \$4,242,000 for production material and purchased parts primarily on the basis of vendor price quotations and prior procurement history for the F-5 aircraft program. We reviewed the pricing of about \$3,233,000 of the production material and purchased parts and found that the proposed and negotiated costs were higher than indicated by available data prior to contract negotiations as follows:

Environmental control system	\$795,791
Fire control radar	49,885
Canopy	80,260
Total	<u>\$925,936</u>

The overstated costs include applicable add-on pricing factors and profit.

Environmental control system

The environmental control system cost estimate included in the June 18, 1973, proposal, exclusive of add-on pricing factors, amounted to \$505,800. The estimate was supported by a price quotation of \$475,800 from vendor A dated May 17, 1973, and a Northrop estimate for test units. Vendor B also submitted a price quotation on May 29, 1973, for \$772,980.

On July 2, 1973, Northrop requested new price quotations from the prospective vendors because the specification had been revised. Vendor A submitted a \$247,800 price quotation on August 3, 1973, and vendor B submitted a \$706,713 quotation on August 6, 1973. Northrop updated the proposed material costs to \$739,755 on August 7, 1973, based on the vendor B price quotation plus an estimate for test units not included in the quotation. The difference in the Northrop proposal and vendor A price quotation amounted to \$491,955 or \$795,791 including add-on pricing factors and profit. Subsequent to negotiations Northrop completed an evaluation of the vendors' technical proposals and found both to be acceptable although neither met specification requirements. A purchase order was later awarded to vendor A at \$238,330.

There is no evidence that Northrop disclosed the lower price quotation from vendor A to the contracting officer, AFPR, or DCAA prior to final negotiations. Resident contract administration and audit personnel had completed reviews of the June 18, 1973, price proposal prior to Northrop's receipt of the revised vendor quotations.

Fire control radar

The radar cost estimate included in both the initial proposal and the August 7, 1973, updated material pricing summary, exclusive of add-on factors, amounted to \$1,593,571. The estimate was supported by a vendor quotation dated May 18, 1973. Included in the material cost estimate was the proposed purchase of six complete radar sets at the quoted unit price of \$82,786, or a total of \$496,716.

On June 21 and 22, 1973, the vendor and Northrop officials met to work out the program baseline definition for contractual go-ahead. At the same time, agreement was reached on the statement of work. It provided for the purchase of five complete sets and two sets of peculiar line replacement units to satisfy contract requirements. The vendor was authorized by Northrop on June 27, 1973, to proceed with the design, development, test and fabrication of the radars in accordance with the statement of work agreed to during the meeting. A purchase order was issued to the vendor subsequent to prime contract negotiations which included the radar requirements at \$462,530. The reduced quantity requirements resulted in a \$34,186 overstatement of contract costs or \$49,885 including add-on pricing factors and profit.

There is no evidence that Northrop disclosed the revised quantity requirements to the contracting officer, AFPR, or DCAA prior to final negotiations. Resident contract administration and audit personnel did not identify the statement of work requirements during technical evaluations and cost analysis of Northrop's price proposal.

Canopy

The forward and aft canopy cost estimates included in both the June 18, 1973, proposal and the August 7, 1973, updated material pricing summary, exclusive of add-on pricing factors, amounted to \$54,220. The estimate included \$4,220 for recurring and \$50,000 for nonrecurring costs. The recurring cost estimate was supported by a vendor quotation dated May 9, 1973. Nonrecurring material costs were not included in the quotation.

The Northrop statement of work dated April 10, 1973, provided that the forward and aft canopies for the F-5F full scale development program would be the same as the F-5B aircraft. Accordingly, the \$50,000 estimate for vendor nonrecurring material costs, or \$80,260 including add-on pricing factors and profit, does not appear appropriate.

There is no evidence that the Northrop statement of work providing for use of F-5B aircraft canopies was disclosed to the contracting officer, AFPR, or DCAA prior to final negotiations. While DCAA questioned the nonrecurring material costs due to the lack of support, we believe that Northrop's decision to use F-5B aircraft canopies for the full scale development program is factual data that was reasonably available to the contractor at the time of negotiations that should have been disclosed. There is no evidence in the contracting officer's price negotiation memorandum that the DCAA questioned costs were sustained.

Overhead costs

The proposed and negotiated overhead rates were higher than indicated by available data at the time of negotiation. This resulted because (1) Northrop did not disclose to the Air Force additional business volume projections that would have reduced the proposed and negotiated overhead rates, and (2) the Air Force contracting officer applied the negotiated factory overhead rate to higher direct labor base costs than was considered negotiated. The contract price was overstated by about \$2,063,000, of which \$1,859,000 pertains to the nondisclosure of business volume projections, and \$204,000 relates to the higher factory overhead cost computation.

The following overhead rates were proposed by Northrop in the June 18, 1973, price proposal:

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Composite</u>
Factory	164	171	177	169.9
Engineering	125	134	140	132.3
Material	13.1	13.	13.8	13.2
Administrative	17.2	17.8	18.9	17.8

The rates were based on a forward pricing rate proposal dated March 19, 1973, supported by a January 26, 1973, business data forecast (BDF). The rates were adjusted to consider the impact of the F-5F full scale development program.

The following rates were considered negotiated into the price of contract -0041:

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Composite</u>
Factory	153	160	165	158
Engineering	123	134	140	132
Material	13.1	13	13.8	13.2
Administrative	14.7	15.1	15.7	15.1

The negotiated rates were based on recommendations by DCAA in its May 21, 1973, report on the audit of Northrop's forward pricing rate proposal dated March 19, 1973, and the August 3, 1973, preaward audit report on the contract price proposal.

Our review disclosed that Northrop's April 27, 1973, BDF included significantly higher business volume forecasts than used to support the proposed rates in the contract price proposal. A comparison of the business volume forecast in the more current April 27th BDF with the forward pricing rate proposal as adjusted, follows:

	<u>1973</u>		<u>1974</u>		<u>1975</u>	
	<u>Proposed</u>	<u>BDF</u>	<u>Proposed</u>	<u>BDF</u>	<u>Proposed</u>	<u>BDF</u>
	----- (000 omitted) -----					
Factory	\$28,300	\$30,857	\$28,700	\$40,329	\$28,500	\$ 41,641
Engineering	19,400	20,998	14,100	17,882	13,600	12,078
Material	60,000	62,865	68,100	91,934	68,500	111,086

The Northrop BDF identified business volume projections for each major program categorized as to firm and programmed, and potential. A significant difference in the above volume forecasts involves potential business on F-5E and the Boeing 747 Special Performance aircraft programs. We found that a substantial portion of the potential volume forecast in the April 27, 1973, BDF had matured to programmed business prior to the negotiations of contract -0041. For example, on July 12, 1973, Northrop authorized the release of sales orders for 39 F-5E aircraft purchased by a foreign country. Also, a sales order was issued on August 10, 1973, authorizing procurement of long lead material for the Boeing 747 Special Performance aircraft program.

We developed more current overhead rates by (1) using the April 27th business volume forecasts, (2) adjusting the overhead costs by appropriate marginal rates applied to the revised

volume forecasts, and (3) adjusting the overhead costs by the amounts questioned by DCAA in the May 21, 1973, audit of the forward pricing rate proposal. The rates we developed are as follows:

	<u>1973</u>	<u>1974</u>	<u>1975</u>
Factory	156.10	149.75	152.14
Engineering	120.64	122.22	142.54
Material	12.65	10.92	10.59
Administrative	14.05	12.61	12.74

The overstated costs negotiated into contract -0041, excluding add-on pricing factors and profit, are as follows:

	<u>Negotiated</u>	<u>Per GAO</u>	<u>Difference</u>
Factory	\$ 5,453,667	\$ 5,095,461	\$ 358,206
Engineering	11,001,058	10,409,785	591,283
Material	699,276	607,662	91,614
Administrative	5,289,744	4,573,077	716,667
Total	<u>\$22,443,755</u>	<u>\$20,685,985</u>	<u>\$1,757,770</u>

Of the total difference, \$1,599,234 pertains to Northrop's failure to disclose current business volume projections available prior to contract negotiations. The remaining \$158,536 represents excess costs included in the negotiated contract price by the Air Force contracting officer in relation to the factory rate that was considered negotiated. In computing factory overhead costs, the contracting officer applied the negotiated rate to a labor base that was \$100,339 more than negotiated.

There is no evidence that Northrop disclosed the more current business volume projections to the contracting officer, AFPR, or DCAA prior to final negotiations. Resident contract administration and audit personnel evaluations of Northrop proposed overhead rates did not identify the more current business volume projections. Northrop officials advised us that BDF's are not provided to resident Government personnel in support of forward pricing rate proposals.

Aside from the nondisclosure of data discussed above, we also noted that a prospective sale of nine F-5B aircraft to a foreign country was not included in the April 27th BDF. On July 12, 1973, Northrop authorized the release of sales orders

for this program. The overhead rates we developed do not consider the impact this sale would have on further lowering the overhead rates.

Contractor and agency comments

Northrop advised us that the cost or pricing data furnished in connection with the pricing of contract -0041 was accurate, complete, and current. The contractor did not agree that a basis existed for a reduction in the contract price. Northrop officials, however, did not provide any explanation as to the nondisclosure of more current data during contract negotiations.

ASD procurement officials provided preliminary comments on the findings presented herein. They agreed that more current cost data on the pricing of the environmental control system and fire control radar was not disclosed during negotiations. Procurement officials did not believe that the engineering cost estimates for the canopy could be considered defective pricing. ASD advised that the data furnished by Northrop in support of proposed overhead rates as well as the DCAA audit recommendations were relied upon during negotiations.

With respect to the canopy cost estimates, if Northrop's decision to use the F-5B aircraft canopy for the full scale development program had been disclosed to ASD, we believe the contract price would have been reduced.

RECOMMENDATIONS

We recommend that you have ASD consider the findings presented herein along with any additional information available, to determine whether the Government is entitled to a price adjustment under contract -0041. In the business volume forecast area, we recommend that you have the Air Force determine the impact of the nondisclosure of BDF's on negotiated forward pricing rate agreements and the ultimate effect on the pricing of Government contracts awarded to Northrop in recent years.

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We are sending copies of this report to the Commander, Aeronautical Systems Division; Commander, Air Force Contract Management Division; and Director, Defense Contract Audit

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Agency. We are also sending copies to the Chairman of the Senate and House Committees on Government Operations, Appropriations, and Armed Services.

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 and Senate Committees on Government Operations 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 these matters and would be pleased to discuss any questions that you may have.

Sincerely yours,

A handwritten signature in black ink, appearing to read "R. W. Gutmann". The signature is written in a cursive style with a large initial "R" and "W".

R. W. Gutmann
Director