REPORT TO
THE CONGRESS OF THE UNITED STATES

EXAMINATION OF
DEPARTMENT OF THE AIR FORCE CONTRACTS
WITH
GENERAL ELECTRIC COMPANY
HEAVY MILITARY ELECTRONIC EQUIPMENT DEPARTMENT
SYRACUSE, NEW YORK

BY
THE COMPTROLLER GENERAL OF THE UNITED STATES
DECEMBER 1959

GAO Wash., D.C.

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON 25

B-133251

DEC 31 1959

Honorable Sam Rayburn
Speaker of the House of Representatives

Dear Mr. Speaker:

Enclosed is our report on examination of certain Department of the Air Force contracts with General Electric Company, Heavy Military Electronic Equipment Department, Syracuse, New York.

The report shows that the firm-fixed price negotiated for radar height finders under contract AF 30(635)-4377 was excessive by about $329,000 because of the use in negotiations of estimated material costs in excess of amounts which had been quoted to GE for this contract by its suppliers of the material. The report also shows that, under price-redeterminable contracts AF 30(635)-2583 and AF 30(635)-4130 for radar equipment, GE was permitted to hold excess provisional payments of $1,400,000 for about 2 years.

After our examination, GE made voluntary refunds to the Air Force of $320,000 for the lower price quotations received from suppliers before contract negotiations and of $1,400,000 for the excess provisional payments that were being held pending price revision of the two other contracts.

The Air Force has recently taken certain specific actions, noted in the report, which we believe should contribute significantly to the negotiation of fair and reasonable prices.

This report is also being sent to the President of the Senate. Copies are being sent to the President of the United States, the Secretary of Defense, and the Secretary of the Air Force.

Sincerely yours,

Joseph Campbell

Comptroller General
of the United States

Enclosure

Contents

REPORT ON EXAMINATION

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DEPARTMENT OF THE AIR FORCE CONTRACTS

WITH

GENERAL ELECTRIC COMPANY

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SYRACUSE, NEW YORK

INTRODUCTION

The General Accounting Office has examined certain Department of the Air Force contracts with General Electric Company (GE), Heavy Military Electronic Equipment Department, Syracuse, New York. These contracts were awarded and administered by the Rome Air Force Depot, Rome, New York, a subordinate unit of the Air Materiel Command. Our examination was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), the Accounting and Auditing Act of 1950 (31 U.S.C. 67), and the authority of the Comptroller General to examine contractors' records, as set forth in 10 U.S.C. 2313(b).

We made a selective review of estimates of cost on which a firm-fixed price was established for contract AF 30(635)-4377 and compared these estimates with cost information available to the contractor and to the Air Force at the time of price negotiations. Under two other contracts, AF 30(635)-2583 and AF 30(635)-4130, the prices of which were adjustable on the basis of actual cost of performance, we reviewed the reasonableness of provisional

payments in relation to the contractor's incurred costs plus profit. Our examination did not include other aspects of contract administration and performance.

FINDINGS AND CONCLUSIONS

EXCESSIVE ESTIMATES FOR MATERIAL INCLUDED IN NEGOTIATED PRICE

The firm-fixed price established for radar height finders under contract AF 30(635)-4377 was excessive because the contractor's proposal for negotiation of the price included amounts for antennas and company-furnished parts which were in excess of the anticipated cost of these materials based on quotations obtained by GE prior to negotiations. The estimated cost of antennas was about $190,200 higher than the maximum price quoted for this contract to GE by its supplier of the item. The estimated costs of certain parts to be furnished by other GE plants were about $72,700 higher than prices quoted for this contract by those plants about 1 month before GE's price proposal was submitted to the Air Force. When the related overhead and profit which GE added to its cost estimates are considered, GE's failure to use the lower prices quoted by its suppliers resulted in the price to the Government being excessive by about $329,000.

In April 1955, GE submitted two price proposals to the Rome Air Force Depot for production of 36 AN/FPS-6 radar height finders, one based on the existing design and the other based on complete redesign of the item. A review of GE's cost estimates by the Air Force resulted in a conclusion that the redesign price was too high but that the design of existing equipment would require some change to be acceptable. This led to preparation of a new proposal by GE which was submitted on May 4, 1955. The new proposal was amended on May 10, 1955, to provide for additional procurement. Estimates of costs in the May 4 and 10 proposal were accepted

without change by the Air Force in negotiations held on May 19, 1955, and were the basis for the negotiated price of $7,421,700. During the negotiations, GE made a price concession of about $28,500 which appears to have resulted from the rounding off of certain prices for individual contract items.

The sections of the report which immediately follow comment on the estimated costs submitted by GE for antennas and intracompany products.

Antennas

In its price proposal of May 4, 1955, GE included an estimate of $1,315,700 for antennas, a major component of the equipment, which was based on a quotation dated April 12, 1955, from the supplier of the item. On May 4, 1955, the same day the proposal was submitted to the Air Force, GE requested the supplier to lower its price to that offered for the preceding 98 antennas under a current contract. In a letter received on May 11, 1955, which confirmed the May 4 communication, the supplier quoted firm prices to GE of $1,032,500 if an order was placed before June 1, 1955, in order to avoid possibility of a break in production, and $1,125,500 if an order was placed after June 1, 1955. The maximum, or higher of the two prices quoted, of $1,125,500, represented a reduction of $190,200 from the price of $1,315,700 included in GE's price proposal. GE did not revise its proposal to the Air Force for the supplier's reduction in price, nor was the reduction considered in negotiations held May 19, 1955, with representatives of the Rome Air Force Depot.

Subsequently, GE was granted a 30-day extension of time by the supplier for the placement of an order at the lower quoted price of $1,032,500. GE placed the order for antennas on June 30, 1955, the last day of the extension granted by the supplier and as a result actually acquired the antennas at a price $283,200 lower than the amount at which the antennas were included in GE's proposal to the Air Force.

Intracompany products

For company-furnished parts to be obtained from its other plants for this contract, GE obtained price quotations during March and the first week of April 1955. In some cases, however, amounts included in GE's proposal, submitted about 1 month later, were greater than the prices quoted by the intracompany suppliers. We did not find instances where estimates included in GE's proposal for company-furnished parts were less than the prices quoted for those parts by intracompany suppliers.

For example, a drive motor (part No. 506E116) was estimated at $2,545 a unit in the May 4 proposal although the GE plant at Lynn, Massachusetts, had quoted, on April 4, 1955, a unit price of $1,240. Differences between GE's estimates and actual quotations furnished by intracompany suppliers follow:

Intra-company part number	Proposed by GE May 4, 1955	Quotation available	Source
506E116	$2,545	$1,240	Quotation from GE Lynn River Works of Apr. 4, 1955
506E115	3,255	2,710	Quotation from GE Lynn River Works of Apr. 4, 1955
506E111	1,235	1,182	Quotation from GE Schenectady of Apr. 1, 1955
7129125	1,036	920	Quotation from GE Pittsfield Works of Mar. 31, 1955
	$8,071	$6,052	

The above indicates a total difference of $2,019 a unit or a total overestimate of $72,700 for 36 units.

GE comments

In comments furnished by GE (see appendixes A and B) we were informed that a careful investigation indicated that, although knowledge of the reduced price for antennas was available prior to the negotiation meeting, its representatives at that meeting did not know of the reduction. GE indicated that, if its negotiators had been aware of this reduction, its price proposal to the Air Force would have been changed to include the antennas at the price of $1,125,500, which would have represented a reduction of $190,200 in its estimated costs.

With regard to parts furnished by other GE plants, GE stated that in one instance an error in the cost estimate occurred and that in another instance GE did not use a revision of a price made 1 week later by the supplier. GE stated, however, that since it is not the desire of the Company to obtain profits from such circumstances, a voluntary refund was made to the Air Force. GE also attached to its comments a copy of a letter to the Air Force in which a voluntary refund of $320,000 had been made the preceding day as an adjustment for the lower price quotations received on antennas and intracompany purchases prior to negotiations.

Air Force comments

The Office of the Assistant Secretary of the Air Force (Materiel) informed us on September 14, 1959 (see appendix C), that it concurred with our view expressed in a preliminary report that Air Force personnel should place increased emphasis on independent reviews of the basis on which contractors develop price proposals.

We were informed that, to emphasize this requirement, the Air Force issued, on July 9, 1959, Procurement Circular No. 19, which requires procurement personnel to make a thorough analysis of contractors' proposals and obtain current, complete, correct, and significant cost and pricing data.

Conclusion

We believe that the negotiation of an excessive price for contract AF 30(635)-4377 resulted from failure of the parties to consider appropriate cost information available at the time of negotiations. The contractor has voluntarily adjusted the price in recognition that it did not use in negotiations lower quotations which had been received for antennas and company-furnished parts.

The Air Force has recently taken aggressive action aimed at improving the pricing of its contracts. These actions include (1) impressing contractor and Air Force personnel with the need for contractors to furnish current, complete, and correct cost data for use in negotiations, (2) requiring contractors to certify that, in the preparation of price proposals and in negotiating contract prices, all available actual cost data have been considered and have been made known to the Air Force negotiators, (3) requiring review by agency audit personnel of proposals on noncompetitive procurements in excess of $50,000, (4) requiring Air Force teams to perform surveys of contractors' estimating departments, and (5) placing increased emphasis on training of pricing personnel. We believe that the measures taken by the Air Force, if properly executed, should contribute significantly to the negotiation of fair and reasonable contract prices.

RETENTION FOR EXTENDED PERIOD OF EXCESS PROVISIONAL PAYMENTS

GE was permitted to hold for an extended period excess provisional payments of $1,400,000 received under price-redeterminable contracts AF 30(635)-2583 and AF 30(635)-4130. This amount represented payments to GE, in excess of incurred costs plus interim profit allowance, which GE would not be entitled to retain at completion of those contracts.

Contracts AF 30(635)-2583 and AF 30(635)-4130 for radar equipment were awarded in June 1954 and April 1955, respectively, and GE subsequently received provisional payments based on billing prices established at that time. The billing prices were to be adjusted at contract completion based on actual costs incurred by GE in performing the contracts. During performance of the contracts, GE's incurred costs were substantially lower than related payments made by the Air Force and, by February 1958, GE had been holding for over 2 years excessive amounts averaging about $1,400,000.

Department of Defense Directive 4105.7, issued in December 1955, placed a limitation on such payments by requiring prompt reporting and refunding of amounts received in excess of incurred costs plus interim profit. With regard to existing price-redeterminable-type contracts, the Directive stated that such limitation on payments should be included in the contract by mutual agreement or at the time amendments for additional procurements are negotiated. However, no action had been taken by Air Force contracting officials to adjust excess payments under subject

contracts either by mutual agreement or at the time additional procurement was added to the contracts in 1956.

We brought our findings to the attention of local contracting officials of the Air Force who requested GE by letter of March 10, 1958, to refund the amount of $1,400,000. A refund in this amount was made by GE in April 1958.

Air Force comments

The Office of the Assistant Secretary of the Air Force (Materiel) informed us on September 14, 1959 (see appendix C), that the payment limitation requirements of the Department of Defense Directive were not included by amendments to the contracts because none of the later changes made under the contracts involved new or additional procurement.

While no substantial additional procurements took place under these contracts, we found that procurements totaling $36,600 were added by amendment 17 to AF-2583, dated April 6, 1956, and amendment 8 to AF-4130, dated May 23, 1956. Consequently, at those dates, Air Force contracting officials were in a position to incorporate the payment limitation requirements in the amendments to the contracts.

The Air Force informed us also that it was keenly aware of the need for controls to avoid situations permitting contractors to hold excess provisional payments for undue lengths of time and that it had been the prime mover in having the Armed Services Procurement Regulation revised in April 1959 to make the inclusion in contracts of the "Limitation on Payments" clause mandatory.

Conclusion

In view of the refund of excess provisional payments made by the contractor in this case and since the procurement regulations now require each contract, where appropriate, to include payment limitation provisions, no further action seems to be required.

APPENDIXES

GENERAL ELECTRIC
COMPANY

DEFENSE ELECTRONICS DIVISION
HEAVY MILITARY ELECTRONIC EQUIPMENT DEPARTMENT

COURT STREET, SYRACUSE, NEW YORK . . . . . TELEPHONE 76-4411

June 13, 1958

Mr. Robert Drakert, Regional Manager
United States General Accounting Office
Regional Office
341 Ninth Avenue
New York 1, New York

Dear Mr. Drakert:

During our February 28, 1958 meeting, summarized by your April 21 letter, you asked several questions and made statements which require considerable explanation. We very much desire that this information be given consideration in your written report as we requested in our letter to you of April 28, 1958.

VOLUNTARY REFUND

You have asked what our response was to the Air Force request for a voluntary refund prior to redetermination on contracts AF30(635)-2583 and AF30(635)-4130. We have complied with the Contracting Officer's request by issuing refunds amounting to $1 400 000.00.

MATERIAL - AF 4377
GOODYEAR AIRCRAFT ANTENNAS

A careful investigation of the Goodyear Aircraft Company subcontract has indicated that although G. E. had knowledge of the reduced price for the antennas prior to the negotiation meeting, its representatives at that meeting did not have that knowledge. Since it is not our desire to obtain profits resulting from such circumstances, we have made a voluntary refund to the Air Force. Appended to this report is a copy of our letter to Mr. G. K. Garrett, Air Force Plant Representative, making this voluntary refund. However, we feel that the circumstances surrounding this subcontract should be explained in detail.

Your personnel have pointed out the fact that on contract AF30(635)-4377, antennas were estimated to have cost $36 515.00 and $37 714.00 for Arctic and Temperate models respectively, but were actually obtained at a cost of $28 654.27 and $29 647.44. They have suggested that at the time of the May 4, 1955 price proposal on AF 4377, G. E. was aware of the reduced price proposal by the subcontractor. We have reviewed our records, obtained the best recollections of our personnel directly involved and asked the subcontractor for their best information on the subject. From these sources the following sequence of events has been pieced together.

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On April 5, 1955, we received a letter from Goodyear Aircraft Company dated March 31, 1955 quoting a target price of $33 500.00 and $34 600.00 for 35 Arctic and one Temperate antennas respectively on a redetermination basis, with a spread of 10% upward and unlimited downward. Apparently there was a telephone conversation a few days later, the results of which were recorded in pencil form on the quotation letter. The prices quoted were converted to a firm-price quotation if a contract were agreed to by May 1, 1955. If not by May 1, 1955 date, then the price was to be $36 515.00 and $37 714.00 respectively. The firm-price quotation by Goodyear Aircraft was subsequently confirmed to us with their letter of April 12, 1955.

In the meantime we had costed the prime quotation and on April 11, 1955 submitted it to the customer. The quotation consisted of two proposals; Alternate A, based on strict compliance with the specifications which would involve complete redesign; and Alternate B, based on manufacturing sets identical to those then being furnished on an earlier contract.

On April 14, 1955 Air Force Price Analysts met with HMEE personnel in Syracuse to discuss the costing considerations of the proposal. They conducted an extensive review of the method of estimating, sampled and confirmed vendor quotations in our Purchasing section, and checked with the Resident Auditor regarding various negotiated rates. At that time Air Force personnel agreed that the quotation was well supported and documented.

However, this quotation was not accepted because the redesign was too high in price, and the "as is" equipment did not fill the customer's need. Later during April 1955, it was agreed with RADC to quote an equipment involving some redesign. The Cost Sub-section was advised by Engineering that the equipment required would be a compromise of the A and B alternates.

A new price proposal was prepared, based on a preliminary construction specification which detailed a large number of components which were to be changed. In addition to the above considerations, our best information indicated that there would be many additional changes, the extent and nature of which were at that time unknown. The revised quotation again included the 36 antennas at the $36 515.00 and $37 714.00 prices since it would not be possible for us to place an order on Goodyear by their May 1, 1955 date and take advantage of their originally quoted prices of $33 500.00 and $34 600.00.

This revised quotation was released by the Cost Sub-section to our Marketing Section on April 29, 1955 and formally quoted by Marketing to the customer on May 4, 1955. This quotation also included a price for six range height indicators. Subsequently, the customer informed us that they wanted twenty range height indicators rather than the six included in the May 4 quotation. Therefore a supplementary quotation was submitted on May 10, 1955 repeating the equipment prices (since the additional indicators had no effect on the equipment price) but increasing the price provision for the increased quantity of indicators. Negotiations took place on May 19, 1955 in Syracuse with price agreement being reached (after a negotiated price concession of about $30 000.00). The results of the negotiation were confirmed to the customer by our letter of May 25, 1955. The Air Force prepared the contractual documents on May 25th and we accepted the contract, with certain listed exceptions, on June 8, 1955.

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Concurrently with the above situation we were approaching the redetermination point for a quantity of 98 equipments being supplied under Air Force contract AF30 (635)-2119, G. E. requisition EH 60000. Goodyear Aircraft Co. was also supplying antennas for this procurement under a redeterminable subcontract. During April of 1955, we contacted them, requesting that they submit a redetermination proposal so that the results of that negotiation could be included in our forthcoming prime contract redetermination proposal. Goodyear told us that an inventory would have to be taken, priced, a proposal prepared, audited by the local Residency, and negotiated. We realized that this would take considerable time and would delay our prime redetermination proposal. This point was brought to the Contracting Officer's attention, and he agreed that we ask Goodyear what price they could establish on their order if it were converted to firm-fixed price. Near the end of April we contacted Goodyear requesting this information. Goodyear indicated that they would consider repricing on this basis and would advise us of their price later. They telephoned us on May 4, 1955, to inform us that they would be willing to convert their redeterminable order to firm-fixed price at $28 654.77 and $29 647.44 for Arctic and Temperate Units respectively. They confirmed this offer with their letter of May 5, 1955 (received by G. E. on May 11, 1955).

On May 4, 1955, G. E. called Goodyear back to ask them to reconsider their firm-fixed price quotation on the 36 antennas, especially in view of their offer to furnish the 98 antennas at the $28 654.77 and $29 647.44 prices. Goodyear promised to review their April 12, 1955 quotation. As a result of this May 4th telephone request, we received their letter dated May 9, 1955 on May 11, 1955, quoting prices of $28 654.37 and $29 647.44 for the 36 Arctic and Temperate antennas respectively. This price was only to be valid if they received a firm order from us by June 1, 1955 (erroneously shown in their quotation letter as May 1st). Otherwise their quote for this procurement for 36 antennas was $31 233.70 and $32 317.71. Near the end of May, G. E. secured an extension of the June 1st deadline date to June 30, 1955. On June 29th, Engineering gave an advance release for ordering the antennas, and on June 30, 1955 a letter of intent was given to Goodyear for the 36 antennas at the $28 654.27 and $29 647.44 prices.

From the above facts and best knowledge of Goodyear and General Electric, certain conclusions can be drawn which indicate the following:

1. G. E. had no knowledge of Goodyear's reduced price for the 36 antennas on May 4, 1955. The May 4th telephone conversation was merely a request by G. E. for reconsideration of Goodyear's April 12th quotation. There was no verbal quotation on the 36 antennas procurement prior to the Goodyear letter dated May 9th.

2. Our quotation for the equipments was not revised and resubmitted on May 10, 1955. The later supplemental quotation only added 14 range height indicators to one of the quotation items. This had no effect on the equipment price which was not changed, nor reviewed, by our Cost Accounting Sub-section. And, even if the equipment portion of the quotation had been reviewed prior to the May 10th quotation, there was no information then available which would have caused us to reduce the estimated price for antennas.

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3. At the time of the final price negotiation on AF 4377 (May 19) G. E. did have knowledge of the reduced price on antennas since our Purchasing Section received the Goodyear re-quotation on May 11. However, investigation has indicated neither the Cost Estimators nor the G. E. Sales Engineers were aware of this information at the time of the negotiation. If they had been aware of this situation, our prime contract quotation would have been changed to include the antennas at the $31 233.70 and $32 317.71 prices rather than the $36 515.00 and $37 714.00 prices which were included in the quotation. The $31 233.70 and $32 317.71 prices would have to be used rather than $28 654.37 and $29 647.44, since the latter prices were only valid if an order were placed by June 1st. We could not anticipate receiving a firm contract from the customer and getting engineering releases in time to place this order by June 1st.

4. There is one additional feature of the Goodyear antenna order that should be pointed out. The order was placed with them on June 30th to secure the $28 654.37 and $29 647.44 prices at considerable risk to G. E. Engineering had not had an opportunity to fully review the new contract and fully evaluate the changes by the date the order was placed. This placed us in the position of possibly having to reimburse Goodyear for extra work and scrap charges in the event of engineering changes which might occur after our full engineering review of the contract. In this instance the risk assumed by G. E. Management resulted in considerable savings to the Company. It might just as well have been a costly mistake, in which event it probably would have been considered "poor management" on the part of G. E.

MATERIAL - AF 4377
INTERCOMPANY PURCHASES

Your Auditors have stated that G. E. did not use the latest information available on prices on several intercompany purchases. As a result of this it has been suggested by them that we overstated costs by approximately $70 000.00. We have investigated the major items involved and have determined the following facts:

Part Number 506E116.

On March 28, 1955, our Purchasing organization contacted the Synchronous and Specialty Motor and Generator Department in Lynn, Mass., requesting a quotation on this part. At that time they were given a quotation by our Lynn people of $1 235.00 net per each on a quantity of 36. This information was given to our Cost Sub-section and was included in our quotation.1/ We were advised subsequently by letter (April 5, 1955) that the price for this item in lots of 10 to 49 would be $1 240.00 net per each, and in lots in excess of 50, the price would be $1 170.00 per each. In a letter from Lynn on August 24, 1955, we were advised that these prices were increased to $1 389.00 and $1 310.00 each respectively. On September 9, 1955 our Purchase Order, EHP-60016-138, was placed for 36 units at $1 389.00 each net. This order was

GAO Note:
1/G. E.'s quotation included $2 545 per unit, not $1 235 as stated above. (Also see G. E. exhibit B.) Apparently, G. E. intended these comments for part number 506E111.

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combined with other orders for this item under other prime contracts making a quantity in excess of 50, so we were given the benefit of a price of $1 310.00 for these items on this particular order. This was actually in excess of our quotation.

Part Number 506E115.

On March 28, 1955 our Purchasing organization contacted the Synchronous and Specialty Motor and Generator Department in Lynn requesting a quotation on this part. Lynn quoted a price of $3 255.00 each net for a quantity of 36. This information was given to our Cost Sub-section, and the part was included in the equipment quotation at that price. Subsequently on April 5th we received a letter from Lynn revising the price to $2 710.00 each in lots of from 10 to 49 and to $2 500.00 in lots of 50 or more. On August 24, 1955 these prices were increased to $3 035.00 and $2 800.00 in lots as above. On September 9, 1955, our Purchase Order, EHP-60016-140, was placed for 36 units at $3 035.00 each.

These items were billed to us by Lynn at the Purchase Order price. However, in December of 1956 the price was adjusted to $2 800 per unit, because the order was combined with other later orders, thus making the price for the larger quantity applicable.

Part Number 506E111.

On March 28, 1955 our Purchasing organization contacted the Medium Induction Motor Department in Schenectady requesting a quotation on this part. We were quoted a price of $2 545.00 each, less G07G discount, or less 54% on a quantity of 36 items. However, when this information was passed on to the Cost Subsection, either the discount factor was not given to them, or the Cost Subsection failed to include it, with the result that the list price of $2 545.00 was inadvertently included in the quotation. This is just one of those mistakes which can occur when figures are transmitted between parties. Actually $2 545.00 less 54% or $1 170.70, should have been the price included. On September 9, 1955 our Purchase Order EHP-60016-139 was placed for the 36 units at $2 545.00, less G07G discount. Billing amounted to $1 170.70 per unit.

Part Number 7129125.

Although we find no specific reference to a quotation from Pittsfield on this part in March 1955 1/ there were numerous quotations received from them by Purchasing during 1954. All the quotations during this period were at $1 036.00. This was the estimated price given to our Cost Sub-section by Purchasing and included in our prime equipment quotation for this particular part. On October 14, 1955, Purchase Order EHP-60016-1146 was placed on Pittsfield for a quantity of 36 at $1 165.00 each, less 6% price discount. The items were invoiced at $1 095.10 per each, the purchase order net price.

GAO Note:
1/Quotation for $920 was submitted by Pittsfield on March 31, 1955.

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Transformers.

Your personnel also questioned several transformer items on which they stated there was a total difference of $1 565.40. This is such a relatively small item that we have not investigated it.

We acknowledge the fact that an error was made on Part Number 506E111 in that the 54% discount was inadvertently not deducted from the estimated price of $2 545.00. Of course, if we had realized this fact we would have corrected our quotation. Exhibit I, attached, indicates that costs were over-estimated by $49 474.80 as a result of this situation. An appropriate adjustment for this clerical error has been included in our voluntary refund. Our letter, previously referred to, is appended to this report.

Your Auditors have suggested that there was later information available on the prices of the other Allied Works items. A review of Purchasing files indicated that of the three other major items mentioned by the Auditors, one of them had been re-quoted at a lower price. G. E. at the time of the price negotiation (May 19, 1955) did have constructive knowledge that these items could be obtained at a total price of $179 496.00 (as indicated by Exhibit I) rather than a price of $198 936.00 which was included in the quotation. If we had been able to wait a few months more for still "later" information we could have included these items in our quotation at the actual purchase order price which for these three items would have been $198 687.60 total. This would have been almost the exact original amount included of $198 936.00, and, presumably, a "better" estimate. The fallacy of continually changing estimates, is shown in this instance. It is for precisely this reason that once an estimate has been made, our cost estimating group does not continually re-evaluate it, or have routines set-up to receive the myriad changes in these estimates. There must be a point where the quotation is prepared and released to the customer.

With the passage of time, estimates are bound to change. Your personnel have selected some instances where the price estimates of our vendors declined. We can point out other instances where the later estimates and actual ordering prices were higher. For instance, an item was estimated at $78.50 but was finally secured at $115.00. Another item was quoted to us at $172.68 but actually cost us $207.01. Cabinets in two instances were estimated at $719.00 and $974.00, but the actual costs were $785.00 and $1 195.00 respectively. There were other items of a similar nature. Thus, it is our experience that changes in estimates average out; if not within individual contracts, then at least on a total business basis. However, we do acknowledge the fact that there were later estimates prior to the final price negotiation that indicated we could obtain the parts listed by your representatives at $19 440.00 less than the estimate included in our price proposal. Actual billing prices reduce this difference by $7 887.60.

In our voluntary refund, consideration was given to the fact that later quotations, prior however, to May 19, 1955, were received, and appropriate adjustments for these items have been included in the refund.

We think that it is worthwhile to repeat another fact. During April 1955 representatives of the Price Analysis Section of RAFD reviewed this proposal. Among other tests, they sample checked our subcontract price estimates, selecting those that

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they wished verified. It is sufficient to say that at that time they, too, were satisfied with the fairness of the quotation.

MATERIAL - AF 2119 and AF 4377
GENERAL

Material is a large part of our costs in most procurements and so we have prepared two exhibits comparing the planned material proposed on AF 2119 and AF 4377 to experienced planned material on the two earlier procurements of the FPS-6's. Some items on the earlier equipment orders were obtained from outside vendors that were to be manufactured in Syracuse on contracts AF 2119 and AF 4377. We have eliminated such non-comparable items. Thus the planned material in Exhibit A[1] represents approximately 93% of the total planned material proposed on AF 2119 for the equipment items. As you will note, the total planned material compares favorably with our experience. On Exhibit B, representing approximately 91% of total planned material, the price proposal on AF 4377 is comparable to our experience on like items. Of course, these comparisons are before the negotiated price adjustments. We don't believe that this data bears out your contention that our cost estimates did not conform to our prior cost experience.

* * * * *

GAO Note:

[1]Exhibit A not included because it does not relate to the matters covered by this report.

GENERAL ELECTRIC

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GENERAL

We should like to point out in general terms some of the problems associated with pricing a contract covering complex electronic equipment. One of these occurs in pricing intangibles, or unknowns. They are inherent in most businesses. Estimators must attempt to evaluate them and price them. The fact that the anticipated unknown did not materialize to the degree expected, does not mean that it can be ignored in pricing. Our business, and any business for that matter, could not long survive if consideration were not given to these unknowns. During discussion of the price proposal with the Contracting Officer and the responsible procurement agency authorities, some of the contemplated intangibles may be removed or lessened. In such an event price adjustments can be considered. Thus, both of the price proposals under discussion were negotiated downward, with the adjustments being made on total price only, without regard to the individual cost elements.

It should be noted that the data presented and discussed in the preceding pages represents our cost estimates before the overall negotiated price reductions. On AF 2119, the price concession amounted to about $735 000.00 and on AF 4377 the concession was approximately $30 000.00 from our quoted prices. Although it is impossible to specifically identify those areas which make up the negotiated reduction, it can be generally stated that the major portion of the reductions occurred at the Shop Cost level, which includes Material, Labor, and Indirect Manufacturing Expense.

Intangibles are therefore a part of our price proposals. Experience is similarly a part of our proposals, and experience is given major consideration and forms the basis for all of our price proposals where it is appropriate. All proposals are always considered in the light of past experience on similar procurements.

A point that should not be overlooked is the fact that estimates are just that - estimates. It is only the remotest possibility that any of our estimates would subsequently be proved to be exactly correct, either in total or in part. In some cases actual experience may prove to be very close to the estimate. In other instances the cost estimate may prove to be too low and, of course, some cases will occur where the cost estimate proved higher than the actual costs. Reviewing only the latter situations will obviously give a distorted view of the true overall results.

We would certainly agree that to appraise the reasonability of cost estimating practices after the results are known is fair enough. But, to only appraise the validity of certain estimates which exceeded the final actual costs because the anticipated unknowns did not materialize, or efficiencies were greater than was originally contemplated, and ignore other estimates where unanticipated or inadequately anticipated unknowns did occur, is patently unfair. If our estimates consistently exceeded our realized costs, our overall profit margins would certainly be higher than they are.

We appreciate the opportunity of clarifying the points raised in your April 21 letter, and of having our comments included in your report. We shall be happy to furnish you with the answers to any further questions which you might have.

Very truly yours,

J. J. FARRELL
General Manager

JJF:hk
Atts: (13)

EXHIBIT B

Planned Material Costs
Comparison AF 4377 to AF 13265

		Experienced - AF 13265 Req. 11350	Experienced - AF 13265 Req. 11564	Proposed AF 4377
8239677	Antenna	$36 442.00	$36 442.00	$36 515.00
506E116	Azimuth Drive	2 201.60	2 201.60	2 545.00
519E432	Azimuth Drive	7 246.52	5 345.00	6 073.00
506E111	Elevation Motor	1 071.25	974.10	1 235.00
506E115	Amplidyne	4 065.80	4 065.80	3 255.00
7603288	RF Assembly	3 834.81	4 441.60	4 070.50
7301357	Magnetron (Less QK 338)	2 679.03	2 625.61	2 968.33
7008267	Pressurizer & Dehydrator	1 071.14	1 390.00	1 490.00
7008266	Heat Exchanger	913.22	1 363.00	1 325.00
7301363	Modulator	4 388.55	4 610.90	3 914.90
7129124	Power Supply	4 028.00	4 825.00	3 711.92
7129125	Regulator	925.00	1 250.23	1 036.00
7301100	RH Indicator (2)	3 756.32	4 271.68	4 203.40
	Cables & Accessories	7 452.21	7 876.38	8 215.06
7303432	Artic Tower Inst. Mat.	611.09	607.99	629.06
	Nameplates	9.12	17.45	15.00
	Circuit Labels	177.96	340.51	51.46
7403540	Test Equipment	8.80	8.89	9.50
7019491	Telephone Equip.	219.30	219.30	228.73
Total-Comparable - Equip.		$81 101.72	$82 877.04	$81 491.86
7301100	R. H. Indicators	$ 1 878.16	$ 2 135.84	$ 2 101.70
	Radomes	$27 072.85	$25 054.43	$25 236.73
Total Contract				
36 Equipments		$2 919 661.92	$2 983 573.44	$2 933 706.96
20 RH Indicators		37 563.20	42 716.80	42 034.00
40 Radomes		1 082 914.00	1 002 177.20	1 009 469.20
		$4 040 139.12	$4 028 467.44	$3 985 210.16 *

* Represents approximately 90.8% of Planned Material.

EXHIBIT I

INTERCOMPANY PURCHASES - AF 4377

Item	Cost Estimate for AF 4377 Quotation	Revised Estimate Received Prior to 5/19 AF 4377 Price Negotiation	Purchase Order Price	Final Adjusted Billing Price
506E116	$1 235.00	$1 240.00	$1 389.00	$1 310.00
506E115	3 255.00	2 710.00	3 035.00	2 800.00
7129125	1 036.00	1 036.00	1 095.10	1 095.10
	$5 526.00	$4 986.00	$5 519.10	$5 205.10
X 36 Equipments	$198 936.00	$179 496.00	$198 687.60	$187 383.60

506E111	Included in Cost estimate at	$2 545.00
	Should have been included at	1 170.70
	Difference per Unit	$1 374.30
	Total Difference (X 36)	$49 474.80

COPIED - jmb 6/12/58

June 12, 1958

Air Force Plant Representative
Middletown Air Material Area
General Electric Company
Electronics Park
Syracuse, New York

Attention: Mr. G. K. Garrett, MARGC

Subject: Voluntary Refund, AF30(635)-4377

Dear Sir:

We have been reviewing our records on the subject contract as a result of the recent General Accounting Office audit. You may remember that our proposal was submitted on May 4, 1955, amended on May 10, and negotiated on May 19, 1955.

This review has indicated that some of our sub-contractors, including the Goodyear Aircraft Company, submitted revised quotations to us prior to the May 19, 1955, price negotiation. The revised estimates were lower than their original estimates which were included in our price proposal. Neither our representatives or yours attending the May 19 meeting were aware of the revised estimates.

If this information had been available to the personnel attending that meeting, we feel that lower prices would have been established on the contract. It is our opinion that proper consideration of this additional data would have reduced the selling prices by approximately $320,000.00.

Although our negotiators had no knowledge of the revised quotations, we have no wish to obtain profits as a result of circumstances such as these. We feel this way, although our experience on fixed price contracts indicates that had the situation been reversed and the revised estimates higher instead of lower, we could not have obtained a corresponding increase in the contract price.

Accordingly, we are making a voluntary refund by issuing a credit invoice and an accompanying check in the amount of $320,000.00 to give you the benefit of the revised quotations.

Very truly yours,

/s/Chas. E. Beard

Chas. E. Beard, Manager
Air Force Sales

FG/rd/dh

GENERAL ELECTRIC
COMPANY
SYRACUSE, NEW YORK

GEORGE L. HALLER
VICE PRESIDENT

August 3, 1959

Mr. C. M. Bailey, Associate Director
United States Government Accounting Office
Washington 25, D. C.

Dear Mr. Bailey:

Your letter of July 6, 1959, to Mr. Paxton enclosing a draft copy of the GAO report on an examination of certain Air Force contracts held by the Heavy Military Electronics Department, has been referred to me for review and comment.

We have no additional significant information to present.

We feel that by attaching extracts of our June 13, 1958 letter to Mr. Drakert to the GAO report, our principle point concerning the inadvertent nature of these differences will be adequately covered. Under these circumstances, we do not feel it is necessary for us to repeat these points covered by this attachment even though we do not agree with some of the implications of the draft report.

We have appreciated the opportunity of reviewing the GAO draft report and would appreciate receiving a copy of your final report when it is issued.

Very truly yours,

/s/ George L. Haller

jw

DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

14 SEP 1959

Dear Mr. Bailey:

I refer to your letter of 6 July 1959 regarding your draft report on the examination of certain Air Force contracts with General Electric Company, Heavy Military Electronic Equipment Department, Syracuse, New York.

As indicated in your report, this contractor has made voluntary refunds of (i) $320,000 under Contract AF 30(635)-4377 for overpricing thereunder, and (ii) $1,400,000 under Contracts AF 30(635)-2583 and 4130 for excess tentative payments which had been retained by the contractor. These refunds are considered satisfactory.

I concur with your comments under AF 30(635)-4377, that Air Force personnel should place increased emphasis on independent reviews of the basis on which contractors develop price proposals. The Air Force constantly emphasizes this requirement. On 9 July 1959, Air Force Procurement Circular No. 19 was issued which requires that Air Force procurement personnel must make a thorough analysis of contractors' proposals, and must have current, complete, correct and significant cost and pricing data, including significant data on proposed subcontracting. Other examples of aggressive actions previously taken to insure fair pricing are:

a. Revision of 26 August 1958, to Air Force Procurement Instruction (3-811(b)), requiring contractors to certify that their proposals are based on the most current cost data and that such data was made available to the Air Force negotiator.

b. Issuance of Air Force Procurement Circular No. 3, dated 5 February 1959. This circular notifies Air Force procurement personnel that the requirement for a contractor's certification of pricing is not to be considered a substitute for careful review and analysis of contractors' proposals.

With respect to your comments on Contracts AF 30(635)-2583 and 4130, the requirements of Department of Defense Directive No. 4105.7 of December 1955 were not included therein because the contracts were awarded in June 1954 and April 1955 respectively. In accordance with the terms of this Directive, the requirements of the Directive were not later included by amendments to the contracts for the reason that none of the changes made under the contracts after award involved new

or additional procurement. The Air Force has been keenly aware of the need for controls to avoid situations permitting contractors to hold excess tentative payments for undue lengths of time. In this regard, the Air Force was the prime mover in pressing for a revision to ASPR to include therein a requirement making mandatory the inclusion of the "Limitation on Payments" clause in all fixed-price redetermination type contracts. This has been accomplished by a revision to ASPR 7-109 dated 20 April 1959.

I appreciate your calling my attention to these matters and the opportunity afforded me to comment on your report.

Sincerely,

/s/ Clyde Bothmer

CLYDE B. BOTHMER
Assistant Deputy for
Procurement and Production

Mr. C. M. Bailey
Associate Director
Defense Accounting and
Auditing Division
U. S. General Accounting Office
Washington 25, D. C.