REPORT TO THE CONGRESS

Inefficient Management Of F-14 Spare Parts

Department of the Navy

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

PSAD-75-70

MAY 2,1975

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-168664

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on inefficient management of F-14 spare parts by the Department of the Navy.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Defense; and the Secretary of the Navy.

Elmer B. Staats
Comptroller General
of the United States

Contents

ABBREVIATIONS

ASO	Aviation Supply Office
CSSA	central supply support activity
DCAA	Defense Contract Audit Agency
GAO	General Accounting Office
NAVAIR	Naval Air Systems Command
NAVPRO	Navy Plant Representative's Office
SML	Support Material List
TSSA	test site support activities

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

INEFFICIENT MANAGEMENT OF F-14 SPARE PARTS
Department of the Navy

D I G E S T

WHY THE REVIEW WAS MADE

GAO reviewed the management of the Navy-owned F-14 spare parts inventory under the control of Grumman Aerospace Corporation because of the continuing congressional interest in the F-14 program and the magnitude of the projected spare parts procurement. The Navy's current F-14 program cost estimate includes $370 million for initial spares to support 334 aircraft through 1977.

FINDINGS AND CONCLUSIONS

The F-14 aircraft is being developed and produced by Grumman for the Navy. Spare parts were used by Grumman during development and testing of the aircraft before delivery. Parts not consumed during these phases are transferred to the Navy when they are no longer needed. According to reports it had furnished to the Navy, the spare parts for which Grumman was accountable were valued at more than $100 million.

How well the inventory at Grumman is accounted for is important from two aspects. First, proper accounting is needed to insure that the Navy receives the quantities of parts to which it is entitled. Second, the Navy's calculations of additional spares it should procure to support the aircraft after they are deployed must consider quantities to be turned over by Grumman to avoid the risk of overbuying.

GAO found serious weaknesses in the management and control of the Government-owned spare parts purchased for Grumman's use in developing and testing the F-14. As a result, the Government may be unable to determine how many of the spare parts Grumman used and how many are still owed to the Navy.

Grumman's inventory control records were unclear as to the quantities of parts for which it should be held accountable. In its examination of Grumman's inventory records, GAO found that:

--There were discrepancies of about $21 million involving parts included in a sample test of entries in the contractor's principal inventory control report.

--Quantities on hand at test sites frequently differed with quantities shown in Grumman's inventory records.

--Navy suppliers shipped about $5 million of parts to Grumman in excess of amounts

ordered; Grumman's records showed no accountability for these parts.

--The value of the parts Grumman reported to the Navy as the amount it was accountable for was $28 million less than the amount shown in a Grumman internal management report as having been ordered. (See pp. 4 to 8.)

The Navy exercised virtually no control over Grumman's management of spare parts. A basic problem was the failure of any of the several organizations involved with the F-14 program to assume the responsibility for insuring that an accurate accounting was kept of the Government-owned spares. Although the Navy Plant Representative's Office makes annual surveys of Grumman's property control system, the F-14 spares were not among the property elements covered in the latest survey made in 1973 when the Plant Representative's Office concluded that Grumman's property control system was basically satisfactory. (See pp. 4 and 8.)

In many cases the Navy has paid higher prices for some of the parts because of questionable buying practices.

--The Navy missed opportunities to purchase some of the spares at more favorable prices under the F-14 production contract options. GAO estimated a saving of $2.5 million could have been achieved over a 10-month period by combining production and spare parts purchases for over 200 types of identical or similar parts. (See pp. 10 to 12.)

--Current cost data, reflecting lower prices negotiated by Grumman with its suppliers, was not used when the Navy negotiated its spare parts prices with Grumman. In reviewing four spare parts orders priced at $3,148,000, GAO found that the Navy could have realized savings of about $346,000 if negotiations had been based on the most current cost data. All or part of these additional costs may be recovered under the contract's defective-pricing clause. (See pp. 12 and 13.)

The prices of many spare parts orders were not negotiated until months after Grumman had proposed its prices. By that time Grumman had already incurred costs and this information could have been useful in negotiating realistic prices. However, Grumman's accounting system permitted costs incurred on numerous orders to be commingled, making it difficult for Navy negotiators to relate the costs to specific parts orders. Government auditors have

faced a similar problem in auditing the contractor's records. (See pp. 13 and 14.)

The Aviation Supply Office, the inventory manager of aircraft parts for the Navy, began procuring initial spares for the F-14 in fiscal year 1972. Through fiscal year 1974 it had procurred $99 million worth of spares. In computing the quantities needed, the Supply Office frequently did not take into account the spare parts the Navy was to receive from Grumman. As a result, in some instances quantities procured exceeded the Navy's needs. (See pp. 15 to 17.)

GAO believes the deficiencies in the management of the F-14 spare parts procurement are serious enough to warrant the priority attention of the Navy so as to determine why they occurred and whether they are being duplicated in other weapon system programs. Matters of immediate concern include the need for:

--A more effective use of production contract options which provide opportunities for more economical spare parts purchasing.

--Coordination between the Navy and the contractor in determining spare parts requirements in order to prevent overprocurement.

--A clearer delineation of the responsibilities of the Navy organizations concerned with spare parts procurement and a followup to insure that they are carried out.

--Strengthened procedures for reviewing contractors' accounting systems to effectively address protential problems which would adversely affect inventory control, contract pricing, and auditing of contract costs.

RECOMMENDATIONS

GAO recommends that the Secretary of Defense direct the Navy to assemble a team of supply management specialists to review spare parts management--including the matters cited as needing immediate attention--in programs where this function is divided between contractors and the Navy's supply activities.

For the F-14 program, GAO recommends that the Secretary also take action to:

--Initiate a physical inventory of Navy-owned spare parts still in Grumman's control and establish their value as the inventory for which Grumman is to be held accountable.

--Determine the extent to which price adjustments should be sought under the F-14 contract's defective-pricing clause.

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Navy does not share GAO's concern about potential losses which could result from Grumman's erratic inventory record-keeping and its own limited surveillance of spares under Grumman's control. The Navy considers the situation to be well in hand what with contractual provisions which establish Grumman's liability for shortages and the monitoring of Grumman's accounting system by the Defense Contract Audit Agency and the Plant Representative's Office. The Navy told GAO that its Resident Logistic Support Detachment, a group located at Grumman's plant, is exercising very tight control over the spare parts.

GAO believes that such confidence is not justified. The monitoring of Grumman's accounting system by the defense components was done on a selective basis and did not uncover the types of deficiencies GAO found. The detachment on whom the Navy is relying to exercise control over the spare parts consists only of one individual and he disclaimed responsibility for monitoring the disposition of the spares. Although there may be contractual provisions to protect the Government's interests insofar as Grumman's liability for shortages is concerned, GAO believes that, given the state of the records, it would be difficult to identify such shortages.

The Navy said it could not always take advantage of opportunities to buy spare parts at lower prices by combining such purchases with orders for the purchase of production parts. A principal reason was the many configuration changes in the F-14 program and the attendant risk of having to pay later for getting the spares configured to the latest configuration. GAO points out that the same risk (changing configurations) was present in buying parts for production. GAO believes that combined spare parts purchases should be considered on a case-by-case basis in view of the pontential it offers for savings.

No action has been taken by the Navy, nor is any planned, to investigate the need for improving its procedures for controlling Government-owned spares managed by contractors.

Contractor comments

Grumman maintains that GAO examined the wrong records. It cited three records as the ones which properly establish its accountability and questioned the magnitude of the discrepancies. It acknowledged only that some errors were inevitable in so large an inventory maintained at several locations. The

contractor agreed that money could be saved if the Navy combined its spare parts purchases with its production buys.

The records GAO examined summarized the data contained in the three records Grumman identified as establishing its accountability. In effect, therefore, GAO reviewed the same information as is contained in the records which Grumman cited as the proper ones.

Grumman referred to one of the records which GAO examined--the inventory value report--as an "internal" report. This report showed that the value of parts Grumman ordered for the developing and testing program was $28 million higher than the value of parts for which it acknowledged responsibility in reports to the Navy. GAO believes that, no matter what the official status of the report, it should be a cause for concern to the Navy as well as to Grumman when the information in this document differs so widely from the information furnished the Navy.

MATTERS FOR CONSIDERSTION BY THE CONGRESS

This report contains recommendations designed to improve the Navy's management of spare parts. The interested committees of the Congress may wish to pursue this matter in future Navy budget hearings.

CHAPTER 1

INTRODUCTION

The F-14 aircraft is a major weapon system being developed and produced for the Navy by the Grumman Aerospace Corporation, Bethpage, New York.

Along with procuring aircraft, the Navy began purchasing spare parts needed to support the F-14 throughout its life cycle. This support is provided in two phases--an initial phase and a replenishment phase.

The initial phase includes

--parts needed by Grumman for developing and testing the aircraft and its introduction into the fleet and

--parts procured by Navy support activities, such as the Aviation Supply Office (ASO), to support the aircraft's first 18 months of operations.

The replenishment phase involves procuring parts for as long as the aircraft remain in service.

This report is concerned with the management of spares designated for Grumman's use in developing and testing the F-14. Many of the spares are identical or similar to the parts procured by ASO. Some of these will revert to the Navy's custody when Grumman no longer needs them. ASO should consider them when computing its requirements to help prevent procuring too many spares.

The F-14 current program estimate includes $370 million for initial spares to support 334 aircraft through 1977. According to Grumman's records, it was accountable for more than $100 million of this total. These spares, referred to as augmented support spare parts, were either manufactured by Grumman, purchased by Grumman from its suppliers, or furnished to Grumman by the Navy.

The magnitude of the spare parts cost and continuing congressional interest in the F-14 program led us to review the Navy's management of the provisioning of initial spares.

RESPONSIBILITIES OF NAVY AND GRUMMAN IN F-14 SPARE PARTS SUPPORT

The F-14 contract awarded to Grumman directed the contractor to maintain inventory and property control records to account for the support spares, including transferring leftover spares to the Navy.

The Navy Plant Representative's Office (NAVPRO) administers the F-14 contract and is responsible for ordering spares from Grumman and negotiating their prices. NAVPRO is also responsible for controlling and accounting for Government-owned property in accordance with prescribed procedures. In addition, ASO delegated to NAVPRO certain responsibilities regarding transferring spares to the Navy.

As the inventory control point, ASO plays a primary role in the transfer. It developed the plan for the complete recovery of Government-owned material. ASO also procures most of the F-14 spares.

Grumman manages, controls, and accounts for the support spares. It returns parts it no longer uses to Navy inventories and reports to ASO the status of the parts to be transferred.

The contractor maintains a central supply support activity (CSSA), which reports program inventory data, and four test site support activities (TSSAs) located at various Navy test sites.

TRANSFER OF SPARES TO THE NAVY

Grumman provided spare parts support until May 1973. At that time the Navy assumed this responsibility and Grumman began transferring the inventory of spares on hand.

As of April 30, 1974, Grumman reported that spare parts worth $52 million, or a little less than one-half the value of parts to be accounted for, had yet to be turned over to the Navy. The transfers were delayed because some parts

--were out for repairs or modifications,

--were to undergo engineering changes,

--were still on order from Grumman's suppliers, and

--were waiting for the Navy to assign a Federal Stock Number.

In chapter 2 we discuss Grumman's inventory control system as it relates to Government-owned F-14 spare parts and our evaluation of the Navy's efforts to oversee Grumman's management of the parts, including transferring the inventory to the Navy. Chapters 3 and 4 are concerned with prices the Navy paid for spares and with ASO's initial provisioning of the parts. In Chapter 5 we have evaluated comments obtained from the Navy and Grumman on this report. Chapter 6 presents our conclusions and recommendations.

SCOPE OF REVIEW

We reviewed the Navy's procedures for acquiring spare parts for the F-14, negotiating prices of the parts inventories, and managing the parts inventories. We examined Navy, Grumman, and Defense Contract Audit Agency (DCAA) records and held discussions with officials of these organizations. In addition, we made a limited physical inventory of specific spare parts at two test sites: Calverton, New York, and Miramar Naval Air Station, San Diego, California.

We conducted our review principally at the following locations:

--Naval Air Systems Command and F-14/Phoenix Weapon System Project Office, Arlington, Virginia.

--Naval Plant Representative's Office, Bethpage, New York.

--Navy Aviation Supply Office, Philadelphia, Pennsylvania.

--Grumman Aerospace Corporation, Bethpage, New York.

CHAPTER 2

WEAKNESSES IN MANAGEMENT AND CONTROL OF SPARE PARTS

There were serious weaknesses in the management and control of Government-owned spare parts designated for the F-14 development and test program. As a result, the Government may be unable to determine what portion of the inventories should be transferred to the Navy to support the deployment of aircraft.

The Navy gave Grumman a free hand in managing the parts because it preferred to rely on Grumman to maintain an adequate inventory control system. Our examination showed that Grumman's inventory control records give a confusing picture of the quantities of parts for which it should be held accountable.

We found discrepancies in the records involving about half of the parts included in our test to determine the reliability of the inventory control system. The records were out of balance by about $21 million. Further tests revealed other types of discrepancies that distorted the amount for which Grumman was accountable.

A basic problem was the failure of any of the several Navy organizations involved with the F-14 program to assume the responsibility for seeing that an accurate accounting was kept of the F-14 spares under Grumman's control.

The Navy conducts annual surveys to assess Grumman's control over all of the Government-owned property in its custody. The latest survey on which we obtained information, made in 1973, concluded that Grumman's property control system was basically satisfactory. However, the F-14 spares were not among the types of property included in the examination that year.

GRUMMAN'S ACCOUNTING FOR SPARE PARTS

According to reports it was furnishing to the Navy, Grumman was accountable for spares valued at $108 million as of April 1974. Included were $33 million of Government-furnished spares and $75 million of additional spares purchased by the Navy which were either manufactured by Grumman or its suppliers. Our estimate of the composition of the spares shows:

	Number	Percent	Value	Percent
			(millions)	
Reparable items	6,600	28	$ 97.7	90
Consumable items	17,200	72	10.7	10
Total	23,800	100	$108.4	100

QUESTIONABLE RELIABILITY OF GRUMMAN'S INVENTORY CONTROL SYSTEM

Grumman's inventory control system consisted of two basic summary records--a status report and a history report--and inventory record cards. The status report, a monthly computer listing of spare parts inventories, shows, for each part, the quantity ordered and on hand at each site and the condition of the parts; that is, ready for issue, in testing, or in repair. Individual transactions, such as receipts and issues, are recorded in a monthly history report. An inventory value report showing the inventory's monetary value was prepared for internal management purposes.

We selected 25 parts valued at about $4 million to test the extent to which Grumman's status report provided adequate control over parts in its custody. We also wished to determine whether Grumman's inventory control records could serve as a reliable basis for identifying parts to be transferred to the Navy.

Two balances can be determined from the status report for each part shown. One balance, derived principally from receiving reports, should indicate the parts to be accounted for. The second balance, derived from other documents, identifies parts on hand, parts out for repair, or parts transferred to the Navy and represents the quantity that Grumman is actually accounting for. Although each is derived from different documents, the two balances should agree.

Balances for 9 of the 25 parts did not agree. For accountability purposes Grumman was controlling quantities valued at $1.7 million, which were not identifiable from its records as ever having been received.

For example, the status of part 2-2148-5, a brake assembly having a unit value of $15,450, was shown in the status report as:

Total received by Grumman at August 31, 1973		43
Added quantities loaned into inventory control		8
Total to be accounted for		51

Other information in the report for the same part (2-2148-5), however, accounted for a total of 71 brake assemblies:

On hand at:		
Calverton TSSA	3	
Point Mugu TSSA	1	
Total		4
Other status:		
Loaned out to production, etc.	5	
Parts due in from repair	11	
In repair	39	
Transferred to Navy	12	
Total		67
Total accounted for		71

The 20 brake assemblies accounted for, but not listed as received by Grumman, were valued at $309,000.

Appendix I contains a summary of the nine items for which we discovered accounting discrepancies.

We discussed the discrepancies with Grumman's management. Grumman investigated these items and found errors in recording transactions involving four of the nine items but could not reconcile the status report balances for the remaining items. One reason, we were told, was that about 2 weeks of transactions reflected in the status report were not recorded in the history report.

Because of the extensive inaccuracies, we expanded our test to include an additional 75 items, having unit values of $40,000 or more and a total value of about $18 million.

We found that balances shown in the status report for 41 of the 75 parts reviewed did not agree. Grumman was controlling, for accountability purposes, parts valued at about $19 million which were not identifiable from its records as having been received. These major discrepancies make the correct quantities to be transferred to the Navy questionable.

When transferring parts, Grumman counts the quantities on hand as each part is transferred and prepares a document identifying the parts and quantities counted. The Navy representatives then count the quantities, indicate their acceptance on the document, and assume custody. The quantities are accepted as the correct number due the Navy regardless of the amounts shown on Grumman's records. Whether the quantity transferred is correct is not determinable from any records we observed either at Grumman or at NAVPRO.

In another type of test, quantities of certain items on hand at Miramar Naval Air Station, San Diego, California, and at the Grumman test site at Calverton, New York, were compared with quantities shown in Grumman's inventory records.

Of 28 parts examined during this test, the quantities recorded as on hand and the quantities actually on hand at the sites differed in eight cases. In six of these the records showed more on hand than could be physically accounted for. The eight discrepancies represented a difference of $65,800 in the value of the parts.

Grumman's records also showed that it had received a greater quantity of some Government-furnished spare parts than had been ordered from the vendors. We estimated that about $5 million of Government-furnished parts were shipped to Grumman by Navy suppliers in excess of the ordered amounts. The value of accountable parts was understated because Grumman was holding itself responsible only for parts ordered.

A partial listing of parts Grumman received in excess of the total quantities ordered is shown in appendix II.

When we asked to be provided with monetary records associated with Grumman's inventory system we were referred to the inventory value report. The inventory value report identifies spare parts by type, location, and dollar value. Grumman referred to this report as an internal report.

When we examined the report in August 1973 it showed that up to that date Grumman had ordered about $136 million in spares for the test and evaluation program. However, in the transition status report it furnished to the Navy 9 months later, Grumman showed the value of the parts it was accountable for as $108 million--$28 million less.

Further, the $136 million shown in the inventory value report as ordered exceeded the combined value of parts received and parts still to be delivered by $37 million.

According to Grummman, many parts were initially received at Grumman's Calverton facility and were then shipped to a test site; consequently, parts received may have been recorded on both organizations' records.

NAVY'S MONITORING OF GRUMMAN'S SYSTEM

In setting up its system to control spare parts, Grumman outlined for the Navy the type of master inventory records it would use. These records were to comprise the current and historical status reports.

The Naval Air Systems Command (NAVAIR) told us that it did not formally review Grumman's proposed inventory system and that it limited monitoring of the Grumman system to following up on reported major shortages. NAVAIR believed that adequate control was provided because Grumman ultimately would have to account for the total quantities ordered.

Like NAVAIR, NAVPRO did not monitor the contractor's inventory system on a regular basis. Its reviews were limited to acting on questions raised by ASO or other Navy sites.

Grumman's F-14 inventory control system should have been under NAVPRO's purview because NAVPRO was the responsible government-property administrator. Government property under NAVPRO's administrative control at Grumman includes real property, government-furnished aeronautical and test equipment, industrial plant equipment, special support equipment, and spare parts. NAVPRO officials told us that the NAVPRO property branch was understaffed, having only one person to perform its reviews.

NAVPRO reports on its reviews had noted that there was no procedure for finding and reporting items physically on hand but not in the record. However, NAVPRO and Grumman agreed that this potential problem was not worth further consideration because overages would be disclosed and reported during the process of transferring inventory at the close of a program.

NAVPRO was not assuming some important responsibilities delegated to it by ASO, such as insuring that the contractor reported complete inventories of reparable parts to ASO or that the contractor transferred parts to Navy sites in accordance with allocations prepared by ASO.

RESPONSIBILITY FOR THE TRANSFER OF SPARE PARTS

NAVAIR's instructions were that the transfer to Navy inventories be based on policies, procedures, and organizational responsibilities established by ASO. ASO's procedures did not specify which Navy organization should account for spares to be turned over by the contractor, but ASO officials believed that NAVPRO should be responsible.

CHAPTER 3

OPPORTUNITIES FOR BUYING SPARE PARTS AT LOWER PRICES

Inadequacies in its buying and price negotiation practices precluded the Navy from acquiring many spare parts at lower prices.

The Navy failed to take advantage of savings available if spare parts orders had been combined with orders for identical or similar parts used in production. Over a 10-month period a saving of about $2.5 million could have been achieved by combining purchases of over 200 types of spares.

Long delays in negotiating prices of orders also resulted in the Navy's paying higher prices for some spares. Grumman's proposals, submitted months earlier, were no longer current when the parties started to negotiate. More recent cost data would have shown that in several cases Grumman's costs were lower than stated in its proposals and that these costs should have been the basis for negotiating lower prices. All or part of these potential savings might still be obtained under the contract's defective-pricing clause.

SPARES BOUGHT AT HIGHER PRICES

During the 10 months ended in February 1973, Grumman bought over 200 types of F-14 spare parts with unit prices of over $2,000 on a "stand-alone" basis, that is, without the benefit of option prices available under its subcontracts for identical or similar parts purchased for production. The prices of these separately purchased items were about $2,500,000 higher than the prices at which the contractor was obtaining comparable production parts.

An example of the differences which resulted from purchasing spare parts on a "stand-alone" basis rather than with the production item follows.

Indicator, VDIG
(A51A9004-17)

Spares acquired with production item		Spares acquired separately		Increased cost		
Quantity	Unit price	Quantity	Unit price	Quantity	Unit price	Total
9	$48,608	6	$61,571	6	$12,963	$77,778

The contractor acquired some spares under option clauses in its production subcontracts at prices equal to those of the production parts. This occurred when the Navy directed Grumman to procure the spares in time for Grumman to include them under its subcontracts. However, most of the spare parts were not ordered by the Navy in time.

Funds for the purchase of spare parts had not been released to Grumman until after the aircraft orders had been placed. Grumman would not order the parts without assurance that funds would be forthcoming. The chart below shows that the initial funds for the spares were not made available by the Navy until 2 or 3 months after the Navy had funded the aircraft and that the spares were funded incrementally over considerable periods of time.

		Spares funded		
Contract lot	Aircraft funded	FY 1970	FY 1971	FY 1972
Lot II	12-31-69	3-2-70		1-17-72
Lot III	9-30-70		11-16-70	1-21-72
Lot IV	9-30-71			1-5-72 4-12-72

Early in 1973 a limited study by resident DCAA personnel revealed that prices being paid for parts used in production and comparable parts purchased as spares differed greatly. NAVPRO requested Grumman to provide detailed information regarding its spare parts buying practices on four major aircraft programs, including the F-14.

Grumman's ensuing study included all spare parts priced at $2,000 or more and purchased between May 1972 and February 1973. The study showed that about three-fourths of these higher priced parts had been purchased for the F-14 program and that over 70 percent of the F-14 spare parts were acquired at variances ranging from 20 to more than 300 percent above prices paid for parts used in production.

NAVPRO concluded that Grumman's study of the prices it was paying for production and comparable spare parts did not adequately cover the pricing problem. It recommended that this area be included as part of a complete review of Grumman's procurement system.

As a result, a team of Navy and DCAA personnel made an indepth review. The team reported that more of Grumman's purchase orders which had been issued on a "stand-alone"

basis could have been merged with the current production runs of the part manufacturers.

When brought to Grumman's attention, its procurement management directed its buyers to obtain quotations for spares and production parts in the future based on concurrent delivery of both and to justify instances where spare parts were bought at higher than production prices.

DELAYS IN NEGOTIATING PRICES

At the time of our review, NAVPRO required, on the average, about 8 months to negotiate spare parts prices. Our analysis included all purchases in excess of $200,000 negotiated through June 1973--there were 29 in all, negotiated for about $18 million.

The delays were an important factor in increasing the prices the Navy paid because, in many cases, prices had been negotiated on the basis of noncurrent cost data. In the interim, Grumman was often able to obtain more favorable prices from its suppliers, but failed to use this information in the negotiations.

NAVPRO told us that delays in negotiating spare parts orders were due to a manpower problem caused by retirements and extended illnesses of its personnel.

Prices negotiated on basis of noncurrent information

Because of the long period it took to negotiate the prices, much of the data submitted with the price proposals was no longer current. In fact, some orders were substantially completed before price negotiations had begun. NAVPRO's memoranda of negotiations indicated that in 18 cases (of the 29 proposals we examined) over 50 percent of the costs were incurred before negotiations began.

The Truth in Negotiations Act (Public Law 87-653, 10 U.S.C. 2306(f)) requires the contractor to certify to the best of its knowledge that the data submitted were accurate, complete, and current. The Grumman contract contained the usual defective-pricing clause which gave the Government the right to a price adjustment if the data to which Grumman certified was subsequently found defective, i.e., inaccurate, incomplete, or noncurrent.

One proposal we examined, totaling $1,138,000, was submitted to NAVPRO on May 23, 1972. The DCAA evaluation

report was issued August 18, 1972, and questioned only a minor amount ($3,500) of proposed material costs. NAVPRO used the report as its basis for accepting Grumman's proposed material costs.

Negotiations were not completed until April 11, 1973, 8 months after DCAA's evaluation. Grumman certified that the data supporting its proposal of May 1972 was "accurate, complete, and current as of 11 April 1973."

The contractor's proposal included an estimate of $110,700 for four of the parts to be furnished. On October 18, 1972, 6 months before concluding negotiations with NAVPRO, Grumman negotiated with its supplier firm fixed prices for these parts totaling $36,700--$74,000 lower than the prices used in the negotiations.

We brought this and three similar instances of apparent overpricing, totaling $346,000, to NAVPRO's attention. NAVPRO has recovered $83,500 on the basis of defective pricing on one proposal and is awaiting a DCAA evaluation of the three remaining proposals before it takes further action.

When significant periods of time elapse between the submission of the proposal and the completion of negotiations, updated cost or pricing data becomes particularly important. This need should have been especially evident in the case of F-14 spare parts when considerable costs were incurred before negotiations. However, Grumman was rarely asked to update its cost or pricing data.

Grumman assumed that NAVPRO was aware of changes and other information, such as revised labor rate notices, which it formally sent to them. This data affected only a small part of the spares' prices. The major changes were in the prices vendors quoted Grumman and these frequently did not come to the Navy's attention.

We discussed with NAVPRO the type of information which was identified on the certificates. As a result, NAVPRO has reemphasized to its personnel the need to review the contractor's certificates to insure their accuracy and current status. Grumman said it would attempt to improve the quality of its certificates.

INABILITY TO COMPARE PROPOSED COSTS WITH ACTUAL COSTS OF SPARE PARTS ORDERS

Even if the Navy had attempted to make greater use of incurred costs in evaluating the contractor's price proposals it would have encountered difficulties.

In Grumman's accounting records the spare parts costs were accumulated under a single contract line item although they were purchased on several orders placed at different times and at different prices. This procedure would have made it difficult for the Navy's negotiators to relate the actual cost of parts to specific orders. Government auditors have faced a similar problem in their audits of the contractor's records. Under Grumman's system it would be meaningful to compare the total proposed costs with total actual costs only after all of the spare parts orders are completed.

The Cost Accounting Standards Board has required, since July 1, 1972, that a contractor's accumulating and reporting of actual costs on a contract be consistent with its practices for estimating costs in pricing a related proposal. In November 1973 NAVPRO found Grumman to be in violation of this requirement.

On March 19, 1974, Grumman agreed to account separately for costs of parts purchased under different orders. All contracts between Grumman and NAVAIR subsequent to fiscal year 1973 will provide for segregating costs of items purchased under each order in excess of $100,000.

NAVY'S ACTIONS TO ACCELERATE PRICING OF SPARE PARTS ORDERS

During our review, NAVPRO, as part of an overall Navy effort, instituted project "Swamp Drain" to decrease the backlog of unpriced orders. In December 1972 various Navy system commands, including NAVAIR, were directed by the Naval Material Command to reduce the backlog of unpriced orders over 6 months old. NAVAIR had been projecting a backlog of $1.1 billion by June 30, 1973, for all programs--an increase of $150 million since the beginning of the fiscal year.

NAVPRO undertook project Swamp Drain between January and June 1973. The amount of unnegotiated proposals at Grumman was reduced from $426 million in December 1972 to $106 million in June 1973.

A second phase of Swamp Drain began in March 1974 at which time the backlog had risen to about $197 million. NAVPRO told us that by June 1974 it had essentially eliminated the backlog.

CHAPTER 4

INITIAL PROVISIONING OF SPARE PARTS BY AVIATION SUPPLY OFFICE

ASO was responsible for procuring the initial spare parts for the F-14 to support 18 months of operations. Through fiscal year 1974 ASO had procured $99 million worth of spares. In computing the quantities to procure, it frequently did not take into account the spare parts the Navy was to receive from Grumman. According to ASO, Grumman's reports on the spare parts it had on hand were sometimes confusing to its inventory managers. In numerous instances quantities procured, of both reparable and consumable parts, exceeded the Navy's needs.

PROCUREMENT OF REPARABLE PARTS

The procurement of reparable items was split into two buys--one to cover 6 months of operations and another to cover the balance of the 18 months' support. The 6-month buys were made in fiscal year 1972. At this time Grumman was reporting to ASO only the inventory position of Government-furnished spares. Consequently, the unreported parts, which Grumman had purchased or manufactured itself, were not considered by ASO in computing the 6-month requirement.

Grumman was not required under its contract to provide this information. However, through its activities at the contractor's site, the Navy should have been able to determine the status of Grumman's spare parts. ASO's procedures required that reparable assets be included in its computation of the quantities to be provisioned.

Even after Grumman began to report to ASO all spare parts it had on hand, ASO often included in its requirements computations spare parts that differed in amount from what Grumman was reporting as on hand. ASO had difficulty interpreting Grumman's reports.

We reviewed the procurement of 95 reparable airframe and engine parts. Major portions of the 6-month buys were in excess of the 18-month requirement. The following schedule summarizes the findings in our tests.

Type of parts	Number of items reviewed	Value	Instances where spare parts to be transferred were considered			Over-procurements	
			Fully	Partially	Not at all	Number of items	Estimated value
Airframe	71	$2,100,000	12	35	24	59	$1,100,000
Engine	24	1,940,000	22	2	-	2	10,000
Total	95	$4,040,000	34	37	24	61	$1,110,000

The following example illustrates excessive buying resulting from the failure to consider spare parts on hand at Grumman. ASO procured 37 multiple disc brakes on the basis of its October 1971 computation of the 6-month requirement without considering brakes on hand at Grumman. A requirements computation we made in September 1973, using ASO's formula, showed a gross requirement for 86 brakes. Disc brakes in Grumman's inventory at that date, according to Grumman's records, totaled 67. The total available assets, therefore, were 104 brakes--18 more than needed.

PROCUREMENT OF CONSUMABLE PARTS

Grumman's reports to ASO showed the number of consumable spare parts it had procured for the F-14 program. In line with instructions from NAVAIR, ASO made no attempt to determine whether any of these would be in excess of Grumman's needs and ultimately turned over to the Navy. Excesses could have been offset against requirements computed by ASO.

Grumman's predictions of spare parts needs were based on various assumptions including aircraft delivery schedules and flying hours projected by the Navy. These projections proved inaccurate. For planning purposes, the number of aircraft to be delivered is used to calculate the total projected flying hours. Flying hours are, in turn, used to calculate the quantities of spare parts needed to support the program.

Early in its support phase, Grumman, largely on the basis of the Navy's flying hour projection, estimated that

about 6,030 hours would be experienced in 1972. By April 1972, however, the Navy's estimates had decreased by about 2,600 hours. As of May 1973, after about 1-1/2 years of operation, the cumulative flying hours experienced on all F-14s totaled 3,550.

The Navy's first projection was made as of May 15, 1969. It predicted the number of aircraft that would be flying by May 1, 1973--the date Grumman's support was scheduled to end. Subsequent revisions were made in October 1969, January 1971, April 1972, and May 1973. Each revision showed decreases in projected aircraft deliveries.

Our estimate, based on a random sampling of 202 items, was that as many as $10 million in consumable parts could remain after Grumman completed its spare parts support phase.

CHAPTER 5

COMMENTS BY THE DEPARTMENT OF THE NAVY AND BY GRUMMAN AEROSPACE CORPORATION

This report was furnished to the Department of Defense and to Grumman for their comments. The Navy responded on behalf of the Secretary of Defense.

The Navy's comments are contained in appendix III; Grumman's comments appear in appendix IV.

Our evaluation of the principal comments follows.

ACCOUNTABILITY FOR SPARES

The Navy did not agree that there were serious deficiencies in the way the spare parts were being accounted for. It considers the situation to be under control what with the contractual provisions and monitoring of Grumman's accounting systems by NAVPRO and DCAA.

Grumman contended that, to properly establish its accountability for the spare parts and the adequacy of its inventory control system, we should have examined records other than those we reviewed.

According to the Navy, the focal document to be used in determining parts to be transferred by Grumman is the support material list (SML). This contains the total quantities of spares procured under the contract. From these, other documents (not identified by the Navy), and physical inventory counts, the Navy believes it can identify any shortages.

In our opinion, the SML falls short of being a reliable control document.

--It does not show the quantities of parts actually received. In addition to parts ordered under the contract, Grumman received quantities of Government-furnished parts in excess of quantities ordered. (See p. 7.)

--It does not show quantities Grumman used nor does it show quantities Grumman borrowed from its other inventories while awaiting the delivery of spares. Conversely, it does not show quantities borrowed from the spares inventory for production.

In addition to the SML, Grumman also cited the DD-250 ledger and the transition status report as the records establishing the accountability for spares. The contractor said that a comparison of the information in these records would produce the spares inventory position and indicate where accountability lies.

The status report, one of two principal reports we examined, is a monthly report which includes a summary of the information contained in the three records Grumman referred to. Therefore, we reviewed essentially the same information as that contained in the three accountability records Grumman cited.

Under the approved Integrated Logistic Support Plan, used in accordance with the contract to manage F-14 spare parts, Grumman established the status report as its inventory control record. It was from this document that we identified discrepancies of $21 million in the parts Grumman was accounting for (see pp. 5 and 6).

Grumman contended that a second record we reviewed--the inventory value report--is an "internal report." This report showed the value of parts Grumman ordered to be considerably higher than the value of parts for which it acknowledged responsibility in its transition reports to the Navy (see p. 7). Grumman said the inventory value report was neither a part of its inventory control system nor a part of an auditable accounting system and that it was being used as a management tool.

No matter what the official status of the report was, we believe it should be a cause for concern to the Navy as well as to Grumman when the information in this document differs so widely from the data contained in the reports Grumman gave the Navy.

Contractor's liability for shortages

The Navy stated that Grumman would be held contractually liable for items not properly accounted for. Grumman, too, said that a reconciliation would be made before it completed the transfer of spares to the Navy which would account for any inventory discrepancies. However, officials we spoke to at both NAVAIR and ASO were not aware of any formal agreement or procedures which spelled out how discrepancies in the inventory were to be resolved.

The question is not whether Grumman should be held responsible for shortages, but how the shortages can be identified, given the state of the accountability and inventory records.

Responsibilities of Navy organizations

The Navy places direct responsibility for its spare parts programs in the hands of the program manager. In its comments, the Navy identified the Resident Logistic Support Detachment as a special group located at Grumman exercising very tight control over the spare parts on behalf of the program manager.

We interviewed this group and found that it consisted of one man. He described his activities as approving the spare parts quantities to be ordered before NAVPRO placed the orders. He participated in early transition planning conferences, but disclaimed responsibility for controlling the disposition of spares once Grumman acquired them.

Discrepancies in the records

The Navy said that lags in processing the records would partially explain differences between the records and the quantities on hand at support sites.

In our checks we accounted for differences due to paperwork lags. We examined locally maintained copies of inventory transaction documents and reviewed the status report subsequent to our inventory cut-off to pick up any unrecorded transactions in process. Some discrepancies could be reconciled in this manner and we did not include these in our findings.

Grumman questioned the magnitude of the discrepancies we alleged and acknowledged only that some errors were inevitable in so large an inventory maintained at several locations. Nevertheless, when early in our review we asked Grumman to reconcile differences of $1.7 million in the recording of nine types of spare parts, it could not reconcile differences relating to five parts and reconciled the other four only after its investigation uncovered errors in the recording of transactions.

Grumman did not specifically comment on any of the examples of discrepancies included in our report except one concerning the brake assembly. It attributed our allegation that records on this part were not in balance to our unfamiliarity with the complexities resulting from the parts configuration having been changed eight times. Grumman told us that we would probably find the records in balance if we had looked at records on the total of all brake assemblies of every configuration.

The Navy said the SMLs showed that 71 brake assemblies were ordered under three part numbers--a total which would agree with the number of parts Grumman's records showed it to be controlling.

However, Grumman's status report showed that it was also controlling eight brake assemblies borrowed from its production inventory. These would not have appeared on the SML. In addition, two assemblies on order had not been received.

The picture we are left with is this: Grumman's status report showed it received 51 brake assemblies but was controlling 71. The SMLs show that the Navy ordered 71 assemblies for Grumman but these obviously were not the same 71 which Grumman was controlling since Grumman's total included eight borrowed from its production inventory. Two of the 71 ordered by the Navy had not yet reached Grumman. Grumman was accounting for 71 brake assemblies under a single SML item number. The Navy said there were 71 brake assemblies ordered under four SML item numbers which involve three interchangeable part numbers.

In summary, the explanations by the Navy and by Grumman do not clarify the situation.

Grumman believes the inventory of consumable parts to be approximately $2 million rather than the $10 million we estimated. Our estimate was based on a random sampling of 202 items, ranging in value from $7,000 to $14,000, which provided a confidence level of 95 percent. Grumman did not provide any details on its estimate.

PRICE ADJUSTMENTS

The Navy agrees with our recommendation that it determine the extent to which price adjustments should be sought under the F-14 contract's defective pricing clause. NAVPRO has been investigating the apparent overpricing of the four spare parts orders we brought to its attention during our review (see pp. 12 and 13). However, NAVPRO has not been instructed by higher headquarters to make any further examination beyond these four orders.

POTENTIAL SAVINGS THROUGH COMBINING ORDERS

Grumman appeared to substantially agree that money could be saved by combining spare parts purchases with production buys.

The Navy said it could not always take advantage of these opportunities because spare parts funds were not

released pending approval by the Congress of the F-14 program. Since the appropriations by the Congress for the aircraft and for the spares were made at the same time, this statement is not valid.

The Navy also said it deferred buying F-14 spares because of past experiences on other programs where it bought too many spares too soon. It cited the many configuration changes in the F-14 program and the risk of having to pay more for getting the spares configured to the latest configuration if they were purchased earlier.

A certain amount of caution is desirable to avoid overbuying spares, especially those which might require changes. However, the same risk (changing configurations) was present in buying parts for production. We think the combined purchase of F-14 spares and production parts should be considered on a case-by-case basis in view of the potential it offers for savings.

Remaining comments by Grumman dealt primarily with specific language in the report and we revised the text in consideration of both Grumman's comments and our own findings. We made similar revisions in the text on the basis of discussions we held with Defense representatives.

CHAPTER 6

CONCLUSIONS, RECOMMENDATIONS, AND MATTERS FOR CONSIDERATION BY THE CONGRESS

CONCLUSIONS

In evaluating the procurement of spare parts, two questions must be answered:

--Has the service bought what it needed?
--Has it paid a reasonable price?

When procurement is delegated to a contractor, as in the case of the F-14's spare parts, there is the additional question of how well the contractor and the service have carried out their mutual responsibilities.

The record regarding procurement of spare parts of the F-14 shows a sufficient incidence of overbuying and overpricing of parts to warrant an inspection of the Navy's buying practices to see how they can be improved.

The Navy paid little attention to how Grumman was controlling the use of the spares. With Grumman's inventory records now showing major discrepancies, the Navy is unable to determine whether the quantities it is receiving in the transfer of the parts are actually the quantities it should be getting. The Navy's failure to take earlier steps to insure good inventory control could be costly considering that more than $100 million of spare parts were to be accounted for.

Management of the F-14 spare parts procurement has serious weaknesses which should receive priority attention to determine why they have happened and whether they are occurring, or are likely to occur, on other weapons system programs.

Matters of immediate concern include the need for:

--A clearer delineation of the responsibilities of the Navy organizations concerned with spare parts procurements and a followup to insure that they are carried out.

--Strengthened procedures for reviewing contractors' accounting systems to effectively address potential problems that could adversely affect inventory control, contract pricing, and auditing of contract costs.

--A more effective use of production contract options that provide opportunities for more economical spare parts purchasing.

--Coordination between the Navy and the contractor in determining spare parts requirements to prevent over-procurement.

Since the Navy does not share our concern that the management weaknesses we observed could result in losses to the Government, a review of these matters should be considered by the Secretary of Defense.

RECOMMENDATIONS

We recommend that the Secretary of Defense direct the Navy to assemble a team of supply management specialists to review the management of spare parts, including the matters cited as needing immediate attention, in programs where this function is divided between contractors and the Navy's supply activities.

Specifically, for the F-14 program, we recommend that the Secretary also:

--Direct that a physical inventory of Navy-owned spare parts still in Grumman's control be made to establish the inventory for which Grumman is to be held accountable up to the conclusion of the transfer to the Navy.

--Determine the extent to which price adjustments should be sought under the F-14 contract's defective-pricing clause.

MATTERS FOR CONSIDERATION BY THE CONGRESS

This report contains recommendations designed to improve the Navy's management of spare parts. The interested committees of the Congress may wish to pursue this matter in future Navy budget hearings.

DISCREPANCIES IN GRUMMAN'S STATUS REPORT

AS OF AUGUST 31, 1973

Part Item	Part Name	Number of parts to be controlled: Received	Loaned in (note a)	Total	Number of p accounted for: On hand	Not ready for (note b)
BVUCC	Brake assy.	43	8	51	4	67
BWPB	Gear box seq.	6		6	-	7
BXJD	Hose	25		25	12	14
FABE	Starter valve	15		15	6	11
FAAVG	Ind. oil press	35		35	12	28
GAACB	Pump main	10		10	3	8
HDAA	Transceiver	13	2	15	4	24
H369	Oil cooler engine	4	4	8	4	8
HLAA	Transceiver	19	5	24	17	21
Total		170	19	189	62	188

a/ According to Grumman, parts were loaned in to its spare part inventory control branch from other than its normal Navy ordering procedures, i.e., the part may be transferred from Grumman production inventory.

b/ The parts in a not ready-for-issue condition included items in repair, transitioned, and on loan.

c/ Monetary values were not shown in the status report. They were calculated by GAO based on unit prices.

ts as issue Total	Difference	Unit Price	Value of parts to be controlled (note c)	Being controlled	Difference
71	20	$15,450	$ 787,950	$1,096,950	$ 309,000
7	1	27,874	167,244	195,118	27,874
26	1	137	3,425	3,562	137
17	2	325	4,875	5,525	650
40	5	465	16,275	18,600	2,325
11	1	10,987	109,870	120,857	10,987
28	13	19,730	295,950	552,440	256,490
12	4	11,556	92,448	138,672	46,224
38	14	75,890	1,821,360	2,883,820	1,062,460
250	61		$3,299,397	$5,015,544	$1,716,147

APPENDIX III

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20350

7 FEB 1975

Mr. R. W. Gutmann
Director, Procurement and
Systems Acquisition Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Gutmann:

The Secretary of Defense has asked me to reply to your letter of 10 October 1974 concerning the management of the provisioning of spare parts for the F-14 (OSD Case #3927). I am enclosing the Department of the Navy reply.

Thank you for the opportunity to comment on this report.

Sincerely yours,

Jack L. Bowers

Jack L. Bowers
Assistant Secretary of the Navy
(Installations & Logistics)

PARTS RECEIVED BY GRUMMAN IN EXCESS OF QUANTITIES ORDERED

AS OF DECEMBER 27, 1973

Part designation	Quantities			Unit price	Value of parts		
	Ordered	Received	Excess		Ordered	Received	Excess
FAAVG	9	35	26	$ 465	$ 4,185	$ 16,275	$ 12,090
GAAHC	3	6	3	35,555	106,665	213,330	106,665
HLAA	9	19	10	75,890	683,010	1,441,910	758,900
FABHG	2	30	28	135	270	4,050	3,780
GHHHF	6	8	2	48,846	293,076	390,768	97,692
GAHS	428	774	346	26	11,128	20,124	8,996
GEKFB	177	524	347	167	29,559	87,508	57,949
GEKFA	209	264	55	236	49,324	62,304	12,980
HDADA	4	7	3	2,320	9,280	16,240	6,960
HHAA	3	9	6	6,277	18,831	56,493	37,662
HMAAD	2	5	3	100,450	200,900	502,250	301,350
HMAAC	6	14	8	100,450	602,700	1,406,300	803,600
HMABC	3	6	3	7,000	21,000	42,000	21,000
HBHM	1	6	5	2,080	2,080	12,480	10,400
HMAG	4	5	1	4,000	16,000	20,000	4,000
HMAH	1	2	1	3,100	3,100	6,200	3,100
HMAS	4	5	1	1,621	6,484	8,105	1,621
HMAX	4	5	1	2,391	9,564	11,955	2,391
HMBH	4	5	1	3,100	12,400	15,500	3,100
HMBL	5	7	2	7,388	36,940	51,716	14,776
HMBM	4	5	1	3,556	14,224	17,780	3,556
Total	888	1,741	853		$2,130,720	$4,403,288	$2,272,568

APPENDIX II

Department of the Navy Reply

to

GAO Draft Report of October 1974

on

Management of the Provisioning of Spare Parts

for the F-14, GAO Code 951071

(OSD Case #3927)

I. GAO Findings and Recommendations

The continuing Congressional interest in the F-14 program, and the magnitude of the projected spare parts procurement, led the General Accounting Office (GAO) to review the management of the spare parts inventory under the control of Grumman.

GAO found serious weaknesses in the management and control of $108 million of spare parts which the Navy provided to Grumman for use in the F-14 development and test program: additional costs were incurred for some parts because purchases of spare parts were not consolidated with purchases of identical or similar parts, and because cost data was not current when prices of spares were negotiated; the contractor's inventory control records give a confusing picture of the quantities of parts for which Grumman should be held accountable;

[See GAO note 1, p. 33.] and the Navy missed opportunities to purchase some of the spares at more favorable prices available under the F-14 production contract options.

GAO believes that these weaknesses warrant priority attention of the Secretary of the Navy from the standpoint of why they happened and whether they are occurring or likely to occur on other weapons system programs. GAO concludes that among the matters which need immediate attention are: (1) a clearer delineation of the responsibilities of the Navy organizations concerned with spare parts procurements and a follow up to assure that they are carried out; (2) the strengthening of procedures for the review and approval of contractors' accounting systems in order to effectively address potential problems which could adversely affect inventory control, contract pricing and auditing of contract costs; (3) making more effective use of production contract options which provide opportunities for more economical spare parts purchasing; and (4) coordinating the Navy's determination of spare parts requirements for provisioning purposes with the contractor's provisioning to prevent overprocurements.

Accordingly, GAO recommends that the Secretary of the Navy:

Assemble a team of supply management specialists to review the management of spare parts provisioning in programs where this function is divided between contractors and the Navy's supply activities to include the matters it has cited as needing immediate attention;

Direct that a physical inventory of spare parts still in Grumman's control be made, and the value established as the inventory for which Grumman is to be held accountable up to the conclusion of the transfer;

[See GAO note 1, p. 33.]

and Determine the extent to which price adjustments should be sought under the F-14 contract's defective pricing clause.

II. Navy Comments

Recommendation 1. Assemble a team of supply management specialists to review the management of spare parts provisioning in programs where this function is divided between contractors and the Navy's supply activities to include the matters it has cited as needing immediate attention.

Recommendation 2. Direct that a physical inventory of spare parts still in Grumman's control be made, and the value established as the inventory for which Grumman is to be held accountable up to the conclusion of the transfer.

Comment. Concur that the management of spare parts programs requires: (1) a clear delineation of the responsibilities of the Navy organizations concerned, (2) procedures for the review and approval of contractors' accounting systems, (3) effective use of production contract options for economical spare parts purchases, and (4) coordination of the Navy's determination of spare parts requirements with the contractor's provisioning.

In all weapons system programs the management of spare parts programs is the direct responsibility of the Program Manager in conjunction with those functional organizational assignments which are specifically spelled out in the contract, which also specifies the responsibilities of the contractor. Responsibility for the management of both Contractor Furnished Material (CFM) and Government Furnished Material (GFM) which are on the Support Material List (SML) is the contractors' responsibility until transition takes place. The transition process is the effort associated with moving items from contractor inventory control to Government inventory control at a specified period of time. The SML is the Government approved document which contains the total quantities of spares procured in accordance with the contractual agreement which requires the contractor

to account for all approved SML items at the time of transition. At the time of transition, the Government insures that all SML items are properly accounted for by physical count or documents reflecting the Navy's approval for the disposition of certain items. If the items are not properly accounted for, the contractor is liable for the replacement of these items.

The responsibilities of both the Navy and Grumman are spelled out in the F-14 contract; the SML contains the total quantity of spares procured in accordance with AR-30, Addendum 29, Section 3.5. A special group, the Resident Integrated Logistic Support Detachment, was located at Grumman and exercised a very tight control over the acquisition and disposition of spare parts for the F-14 Program Manager. The items discussed in the report are primarily CFM and not GFM; however, Grumman is responsible for the management of both CFM and GFM SML items until transition takes place.

With regard to procedures for review and approval of contractors' accounting systems, both DCAA and the NAVPRO, on behalf of the appropriate Program Manager of a weapons system, insure that the contractor's accounting and inventory systems provide adequate visibility and control of assets.

Accordingly, it is not considered necessary to assemble a team of supply management specialists or to make a physical inventory of spare parts still in Grumman's control. Monitoring of these items will be continued and system deficiencies brought to Grumman's attention for corrective action.

[See GAO note 1, p. 33.]

Recommendation 4. Determine the extent to which price adjustments should be sought under the F-14 contract's defective pricing clause.

Comment. Concur. Action has been initiated by NAVPRO, Bethpage, the Administrative Contract Officer, and DCAA to determine the extent of these price adjustments.

III. Specific Comments

GAO Report, page 2. In order to avoid a misunderstanding, it is suggested that this page be revised.

With regard to the statement that "Grumman's management of spare parts was left virtually uncontrolled by the Navy. A pervasive problem was the failure of the Navy to designate an organization that would be responsible for ensuring that an accurate accounting of the Government-owned assets would be maintained." It is suggested that this statement be deleted in view of the comment on Recommendations 1 and 2 and the fact that the contract for the F-14 did designate the functional organizations responsible. As explained in the comments on Recommendations 1 and 2, the contractor is required to account for Navy approved SML items at the time of transition.

The Navy agrees that it is certainly more economical to procure spares with production quantities, as evidenced by the actions taken by NAVPRO and DCAA, explained on page 24 of the GAO report. However, availability of spares dollars precluded this in many cases. The following release dates of F-14 spares dollars is offered to substantiate this:

FY 72 - Funds not available until October/December 1971.

FY 73 - Funds not available until December 1972.

Funds were not released earlier pending Congressional approval of the F-14 program.

In addition, there are other considerations which tend to work against simultaneously procuring spares and production qualities; i.e.,

a. Advance procurement funding is provided for long leadtime production quantities wherein spares are not normally procured at this time due to the uncertainty of the production program and potential for design change.

b. There are several technical and administrative actions that must take place subsequent to the decision as to the number of aircraft to be produced. Program data for item computations has to be developed and requirements computations made; final contract language has to be negotiated and processed for approval by various government offices; and proposed procurement releases have to be reviewed as a part of our management effort to minimize the procurement of unneeded spares.

c. DOD policy requires that spares procurement be phased based upon lead time of the spares and need dates. This policy has been developed as a result of many lessons learned in the past from buying too much too soon. For example, 746 Engineering Change Proposals (ECPs) have been developed by the contractor against the F-14. Only 98 of these have been disapproved by the Navy, with 146 remaining in process. The rate of ECPs is constant at this time. Another reason for this policy is the high cost of modification spares. In FY 76 and FY 77 24% of all Navy initial spares will be modification spares.

d. The spares funding addressed in the report includes contractor augmented support which requires that the contractor deliver the latest configuration resulting from an ECP. Thus an earlier release of spares dollars would possibly have resulted in higher cost, since there were a substantial number of ECPs processed during this time.

Pages 15 and 16, last paragraph. The statement concerning item BVUCC (part 2-2148-5) is an error in that the SML accounts for 71 brake assemblies under four SML item numbers: BVUCC, BVUCCA, BVUC-2 and BVUC which involve three different part numbers 2-1248-5, 2-1248-6 and 2-1248-7 all interchangeable.

Page 17. Discrepancies sometimes exist in records at support sites pertaining to quantities on hand vs inventory records. This is due in part to the lag in processing the paper work for expedited material transfers in order to enhance aircraft availability. However, this type of error in no way impacts transition of total quantities ordered.

GAO note 1: Portions of this letter have been deleted because they are no longer relevant to the matters discussed in this report.

GAO note: Page number references in this appendix may not correspond to pages of this report.

APPENDIX IV

GRUMMAN AEROSPACE CORPORATION
BETHPAGE NEW YORK 11714

GEORGE M. SKURLA
president

United States General Accounting Office
Procurement and Systems Acquisition Division
Washington, D.C. 20548

Attention: Mr. R. W. Gutmann, Director

Subject: GAO Report (Draft)
"Management of the Provisioning of Spare Parts of the F-14" October 1974, Comments Concerning

Reference: (a) GAO Letter (Mr. R. W. Gutmann) to Mr. G.M. Skurla, dated 9 October 1974 with Enclosure, Subject Report

Gentlemen:

In accordance with your request of 9 October 1974, we have reviewed the subject draft report in considerable detail.

It distresses me to report to you that Grumman does not concur with the GAO Findings and Conclusions contained therein. It appears that the survey team did not attain an adequate understanding of the F-14 contract base, and apparently misinterpreted our property control system/procedure.

Specifically, the report draft reflects five major areas of inconsistency in spares management, paraphrased as follows:

1. Weakness in GAC Property Control System for Accountability of Spares Used in the Aircraft Development Program (RDT&E Phase)
The accountability of spares procured by the Government, whether used in development or for fleet delivery is established by three control reports, namely, the Support Material List (SML), the DD-250 Ledger, and the Transition Status Report.

The SML lists every spare part ordered by the Navy. The DD-250 Ledger (a summary of each DD-250 issued by part number) lists each spare part delivered to the Navy. The Transition Status Report lists each spare part for which inventory control responsibility has been officially transferred to the Government. Further, a comparison of these three listings produces a quantitative position defining what was delivered vs. what was ordered and who has the responsibility for property accountability.

2. GAC Inventory Control System for Spares is Confused

As stated in the draft report, "Grumman's inventory control system generates three basic summary records, namely, a status report, a history report, and an inventory value report". This statement is only partially correct. Our system does have a status report, and a history report. However, the inventory value report is not a part of the inventory control system. It is an internal report which is used to grossly indicate value position against milestones of a support contract. Its intended use is as a management tool and never was established as an auditable accounting system.

The Grumman spares inventory control system does consist of three basic reports, namely, the status report, the history report and the inventory record cards. The status report is generated by the SML and reflects on a monthly basis, the spares status by site location, against the SML requirement. The history report provides a complete history by part number of all the transactions of that particular part, beginning with the SML requirement through transition to Navy inventory responsibility. The history report is likewise maintained (updated) on a monthly basis. The inventory record card(s) maintains the daily part number status and provides the input to the status report and the history report on a daily basis. To accurately audit the spare inventory, one would compare a physical audit to a cross-reference combination of the three reports. Apparently the survey team neglected to recognize the relationship between the daily records and the monthly status, thereby concluding that major discrepancies existed in system.

Needless to say, a system which controls 63,000 line items consisting of more than 1 million pieces at four different geographical locations, will have some error. However, we can neither understand nor substantiate the magnitude of error indicated in the subject report. It should further be recognized that transitioning is completed only when a final reconciliation of all spares ordered is accomplished. Total accountability must be affected before transition is complete, including any errors discovered at that time.

3. Additional Costs Were Incurred for Some Spare Parts Because of a Lack of Consolidation of Spares with Production Procurement

What the GAO states regarding higher prices paid by the Navy for spares as compared to common production items is correct. However, we submit that consideration should be given to the following:

Both Government and industry practice in the past has been to treat and think of spares as different from production items. They are usually procured by different prime contracts. Although in the F-14 prime contract, spares were line items, unpriced and indefinite in quantity, separate from the VARLOT items.

APPENDIX IV

GRUMMAN

They are often procured by a different procuring agency. It is normal practice in industry to procure spares with separate subcontracts. It is common to have different procedural and organizational arrangements for the procurement of spare parts.

The F-14 prime and subcontracts were somewhat uncommon in that they contained variable quantity options for successive lots. This created an atypical situation making it mechanically possible in a few situations to combine the orders for spares and production items. Obviously, in the absence of some such situation, the subcontractor is free to insist upon a different price for spares. Nevertheless, the improbability of a prime contract option requirement so meshing with a prime contract spares requirement in timing, the nature of the spare item, and quantity, as to make their combined purchase under the VARLOT feasible should make our occasional failure to recognize and exploit the situation understandable and acceptable. However, as stated in subject GAO report, Grumman personnel have now been instructed to be alert for the opportunity to procure spares with the prime contract production requirements wherever possible.

4. Delays in Negotiating Spares Prices
Extensive delays were experienced in definitizing prices of support commodities, contributed to by both the Navy (NAVPRO) and Grumman. This is no longer true and was not true at the time the survey was conducted. Action was and continues to be taken to assure a timely negotiation of support items.

5. Prices Negotiated on Basis of Non-Current Information
This again is related to the delay in negotiation of spares prices previously discussed in Item 4. In any event, Grumman will and has investigated all responsible defective pricing allegations by the Government.

One of the four cases cited in the report has been brought to our attention. In this case, we agreed with the Government in principle and reduced the contract price.

The remaining three cases have not been identified to Grumman. The contractor cannot concur with the allegation, nor can the contractor investigate the allegation without the benefit of specific knowledge of the cases referenced in the draft report.

In addition, the GAO should consider the following specifics:

a) Referring to the fourth sentence under Findings and Conclusions on page 4 of GAO Report - at the exit conference held on May 22, 1974, GAO's misconception of comingling orders into individual accounts was corrected by the contractor's statement that order accountability was not in effect prior to FY'74.

b) Referring to the second par. under Transfer of Spares to the Navy - in addition to the reasons given in the GAO Report, GAO should use the words in the referencing draft on page 9, "The Navy had not assigned a Federal Stock Number to all augmented spares. Spares must have a Federal Stock Number before they can be transitioned or recorded on Navy Stock Records".

c) Referring to the third par. under Improvements Needed in Management and Control of Spare Parts on page 13 of GAO Report - the discrepancies referenced as distorting the amount for which Grumman was accountable includes overshipments by the Navy over which the contractor has no control and discrepancies in the Inventory Value Report which we previously indicated was not an auditable document.

d) Referring to the Summary under Grumman's Accounting for Spare Parts on page 14 of GAO Report - the $10.7M amount for Consumable Items is questionable. The contractor's estimate for Consumable Items is approximately $2.0M. This was brought to the attention of the GAO representatives at the Post Exit Conference held on May 24, 1974.

e) Referring to the last par. on page 15 and the top half of page 16 under Questionable Reliability of Contractor's Inventory Control System of GAO Report - the contractor explored thoroughly the alleged discrepancies on pages15 and 16 for Item No.BVUCC-5 Brake Assembly with the GAO representatives at the Post Exit Conference held on May 24, 1974. The configuration of this Brake Assembly had changed 8 times and the GAO representatives were advised that because of the introduction of that many configurations and modifications, someone not familiar with its complexities, could easily conclude that it was out of balance.

f) Referring to the first sentence on page 18, under Questionable Reliability of Contractor's Inventory Control System of GAO Report - the contractor re-affirms that Spare Parts shipped to GAC in excess of ordered quantities does not understate the value of parts to be accounted for.

g) Referring to the second par. on page 27, under Prices Negotiated on Basis of Noncurrent Information of GAO Report - the contractor re-affirms that changes and other information, like revised labor rate notices are formally sent to NAVPRO, not routinely sent as stated in the GAO Report.

h) Referring to the second par. on page 32, under Procurement of Consumable Items of GAO Report - the contractor advised the GAO representatives at the Exit Conference that the word "Over Procurements" is not correct, since the contractor had used hours flown from Navy Weapons System data as a basis for buys and it was not until later that the requirements were lowered.

APPENDIX IV

GRUMMAN

We have endeavored to objectively review the subject report. I trust that our comments will assist GAO in clarifying this evaluation, thereby enhancing the value of this report to the Government.

I sincerely offer our appreciation for the opportunity to comment on this effort.

Respectfully,

GRUMMAN AEROSPACE CORPORATION

G. M. Skurla
President

GAO note: Page number references in this appendix may not correspond to pages of this report.

PRINCIPAL OFFICIALS RESPONSIBLE FOR ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office			
	From		To	
DEPARTMENT OF DEFENSE				
SECRETARY OF DEFENSE:				
James R. Schlesinger	July	1973	Present	
Vacant	May	1973	July	1973
Elliot L. Richardson	Jan.	1973	May	1973
Melvin R. Laird	Jan.	1969	Jan.	1973
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS):				
Vacant	Apr.	1975	Present	
Arthur I. Mendolia	June	1973	Mar.	1975
Hugh McCullough (acting)	Jan.	1973	June	1973
Barry J. Shillito	Jan.	1969	Jan.	1973
DEPARTMENT OF THE NAVY				
SECRETARY OF THE NAVY:				
J. William Middendorf, II	June	1974	Present	
Vacant	Apr.	1974	June	1974
John W. Warner	Apr.	1972	Apr.	1974
ASSISTANT SECRETARY OF THE NAVY (INSTALLATIONS AND LOGISTICS):				
Jack L. Bowers	June	1973	Present	
Charles L. Ill	July	1972	May	1973

AN EQUAL OPPORTUNITY EMPLOYER

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

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE,$300

POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE

THIRD CLASS

Library
Room - 7056