THE IMPACT OF AGENCY AUDITS ON THE BUY OUR SPARES SMART (BOSS) PROGRAM

by

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This study examines the effects of audits on the Navy's Buy Our Spares Smart (BOSS) Program. The BOSS program was established in 1983 in response to the Department of Defense's efforts to resolve the spare parts pricing problem. The study focused on the impact of Government (U.S. General Accounting Office, Department of Defense Inspector General, and Naval Audit Service) auditing on the development and progress of the BOSS program.

This study examined all (20) completed audits as listed in the BOSS annual reports and compared them against changes that have occurred since inception of the BOSS program.

The researcher found no significant impact of Government auditing on the BOSS program. The BOSS program has demonstrated unusual stability from the beginning implying that the program was extremely well thought out and executed. Audit findings and recommendations readily support this supposition.
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on the
Buy Our Spares Smart (BOSS) Program

by

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I. INTRODUCTION

A. BACKGROUND

Early in the nineteen eighties the Department of Defense (DoD) began to react to "bad press" about inflated prices the military was paying for spare parts. The news media and the U.S. Congress pummelled DoD and the Military Services with a constant barrage of accusations of spare parts overpricing and mismanagement. The newspaper headlines of the day ran stories of the Military Services buying "$400 Hammers," "$600 Toilet Seat Covers" and "$7,000 Coffee Makers." These were the days of the so called "Horror stories" of spare parts procurement.

The Congress also found this current situation with DoD and its Military Services a tempting weakness to exploit. Certain members of Congress supported reductions in the defense budget, either to reduce the national deficit or to fund other federal programs, such as socioeconomic programs, a frequent competitor for defense funds. The defense budget is an extremely tempting budget for Congress to review because it is the largest budget funded on a yearly basis. Also, much of the national budget is already locked in and there is no decision as to how much to allocate. For example, the interest payments on the national debt are essentially mandated and the amount is non-negotiable.
One particular senator decorated a Christmas tree with items that had been purchased by DoD and that he believed to be overpriced. Some of these exhibitions were probably just grandstanding on the part of our public officials involved but in most cases it was probably an honest concern by our congressmen that the American taxpayer should be able to get a fair and reasonable price for the goods and services purchased by the Government.

When the spare parts pricing problem came to the attention of the public it was certainly destructive to the image of DoD and the various Military Services. Lack of confidence and lack of support from the general public certainly translates into lack of support in the Congress. Lack of support in the Congress will no doubt turn into lack of support when it comes time to approve appropriations for the DoD budget.

Why did such things as $400 hammers and $600 toilet seat covers cause such an uproar with the American press, the Congress and particularly the American people? The answer may not be entirely clear but certainly lies within the realm of lack of confidence in the military procurement establishment and a lack of understanding of Government procurement. In a masters thesis by LT Stearns [Ref. 1:p. 8], it was explained that the general public's interpretation of the meaning of "spare part" is not the same for the average American as it is for DoD. He further
indicates that a spare part even has negative connotations in the mind of the public by suggesting that the word "spare" suggests something unneeded and extra.

Along with spare parts overpricing problems, the Military Services were also the brunt of accusations of colossal cost overruns on the procurement of major weapon systems. These too made the headlines of the nation's tabloids and to the halls of Congress. Cost overruns of 100 and 200 percent on multi-million dollar programs staggered the imagination of the American public. Again, as in the case of spare parts, the word "overrun," especially when associated with procurement by the Government simply meant inefficiency, mismanagement and waste.

A report issued by the Office of Federal Procurement Policy (OFPP) on spare parts procurement, and referenced in a GAO report, sums up the situation as best any one can. It stated:

Horror stories have created a public perception of a problem far more common and pervasive than is actually the case, they do serve as a warning that additional management attention is needed. [Ref. 2:p. 2]

This situation was further exasperated by audits conducted by the U.S. General Accounting Office (GAO) and The Department of Defense Inspector General (DoDIG). They charged that the U.S. Military establishment was experiencing severe problems in the acquisition of spare parts resulting in overpricing.
On 25 July 1983, then Secretary of Defense Caspar Weinberger issued a ten point memorandum (see Appendix A) on how the military departments should proceed in correcting the spare parts acquisition problem. The first paragraph of Secretary Weinberger's memorandum clearly indicates, in the Secretary's opinion, that DoD has not been doing their job in the acquisition of spare parts and that something needs to be done now. It stated:

Our recent audits and investigations of aircraft spare parts accounts demonstrate conclusively that we must make major changes in the way we order and purchase spare parts. The directives we instituted in March 1981 to increase competitive bidding and hold down prices have not been enforced vigorously enough throughout the Defense Department. [Ref. 3]

Although efforts to reduce the cost of spare parts had been an ongoing concern since the early 1960's, this initial memorandum appears to be the beginning of a whole flurry of activity with regard to attacking the spare parts pricing problem in DoD. In August of 1983 several more edicts were issued including an addendum to the Secretary Weinberger's memorandum that added twenty-five more initiatives to the original ten. Also in August, the Chief of Naval Operations, Admiral James D. Watkins issued a NAVOP message dictating actions to be taken by the Navy to correct the spare parts pricing problem. Earlier in this same month President Reagan issued a policy statement calling for the U.S. Government to increase the use of competition in Federal procurements. Further pressures from a reduced
real terms) budget, yet an expanded mission for the Navy has caused greater calls for more efficient use of the Navy's resources. The underlying message from all of these proclamations was that the U.S. Government wanted a fair and reasonable price for the spare parts it buys. [Ref. 4:pp. 2-5]

B. FOCUS OF RESEARCH

The area of research will focus on the impact of the Government's audit program on the Buy Our Spares Smart Program. Nearly all U.S. Government organizations undergo some type of scrutiny of their actions. In most cases this scrutiny will take the form of an audit, investigation or inspection. The primary purpose of these audits is to ensure that the audited agency is in compliance with laws, directives and regulations. It also is an accounting of that activity's actions to the people of the United States.

The results of these audits and investigations frequently result in modifying the goals and objectives of that activity to conform to the current goals and objectives of the Government or our society. The researcher will focus on the changes in the BOSS project as a result of the audits that have been performed on spare parts management in the Navy.

C. OBJECTIVES OF THE RESEARCH

The primary purpose of this study is to consider the impact of the auditing of various governmental agencies on
the Navy's Buy Our Spares Smart (BOSS) Program. In evaluating the impact of the Government's auditing program on the BOSS project, the researcher will also look at the consistency of the audits in regard to audit findings and recommendations, whether audit agency recommendations have been congruous with the goals and objectives of the Navy and DoD, and whether the audits have inhibited or fostered the progress of the BOSS program.

D. RESEARCH QUESTIONS

The primary research question is:

- What impact have the various governmental audit agencies (U.S. General Accounting Office, Department of Defense Inspector General and Naval Audit Service) had on the development of the Navy's Buy Our Spares Smart Program?

Secondary research questions are:

- How do the audit agencies compare regarding audit findings, discrepancies and recommendations?

- Have the audit agencies recommendations been congruous with the goals and objectives of the Navy and the Department of Defense toward procurement?

- Have the audit agencies recommendations furthered Buy Our Spares Smart Program's progress toward improving spare parts pricing and to what extent?

E. RESEARCH METHODOLOGY

The information contained within this study was acquired from a variety of sources. Initially a review of existing literature was conducted to gain a basic yet thorough understanding of the Navy's BOSS Program. The majority of the background information came from the BOSS Annual
Reports, the Defense Logistics Studies Information Exchange (DLSIE) and other theses and studies on the BOSS program. Supplementary information was also obtained from Navy Instructions, Government directives and articles from various periodicals.

The primary research information was collected from the offices of the Naval Supply Systems Command (NAVSUP), PML 550. PML 550 provided assistance in obtaining copies of selected audits from GAO, DoDIG and the Naval Audit Service and supplementary information related to those audits.

The last source of information was interviews conducted with various NAVSUP personnel familiar with audits of BOSS related programs and personnel connected with upholding and or initiating policy guidance for the BOSS program.

F. SCOPE OF THE STUDY AND LIMITATIONS

The scope of this thesis is concerned with determining the impact of governmental audits on the BOSS program. The study is intended to look at those audits that have affected or had potential to affect the basic goals and objectives of the BOSS program. It is not the intent of this study to review every audit or investigation related to the BOSS program but only those that would or could affect the policies of the BOSS program. It is also not the intent of this study to evaluate the effectiveness of the BOSS program or to provide recommendations as to policy guidance of the BOSS program. In a nut shell, the intent of this thesis is
to evaluate the effect auditing has had on the goals, objectives and policies of the BOSS program.

G. ASSUMPTIONS OF THE STUDY

There are three basic assumptions that this researcher will begin with in order to facilitate the accomplishment of this thesis. It is assumed that the readers of this thesis are familiar with standard terminology used within DoD and the Navy and that the readers of this thesis are familiar with the basic concepts of procurement within DoD.

Secondly, that current instructions and directives including the BOSS Annual reports, accurately reflect the goals, objectives and policies of DoD and the Navy toward the BOSS program and spare parts procurement. The reason for this assumption is to ensure a firm baseline when comparing the activity of goals, objectives and policies through the years BOSS has been in operation.

Thirdly, it is assumed that the original 112 goals and objectives accurately reflect the sentiment of the time when Secretary Weinberger issued his thirty-five initiatives to combat the problem DoD was having with spare parts procurement.

H. ORGANIZATION OF THE THESIS

This thesis is organized into five chapters. Chapter I, of course, is the introductory chapter and provides a brief overview of the spare parts problem experienced by DoD.
Chapter II is a background chapter and is intended to provide a historical perspective of the BOSS Program from its inception in 1983 to the present. Chapter II will also provide a brief overview of the auditing agencies and also the agencies that were audited.

Chapter III presents the information that was gathered from PML 550 and briefly summarizes each of the audits examined. In addition to examining audits, Chapter III will also review each of the initiative categories and briefly describe the activity each has had since the inception of BOSS in 1983. Chapter IV is the analysis of the information presented in Chapter III. Chapter IV will relate goal and objective changes, if any, to the recommendations and findings presented in the selected audits. Finally, Chapter V provides the conclusions and recommendations of this thesis toward the impact of audits on the BOSS program.
II. BACKGROUND

A. INTRODUCTION

With the introduction of Secretary of Defense Weinberger's ten-point plan of 25 July 1983, each Service and the Defense Logistics Agency (DLA) was directed to take action to remedy "the way we (DoD) order and purchase spare parts." Each Service and DLA initiated programs in response to the Secretary's memorandum. The programs had many similarities, such as increased competition and breakout, but there were differences. [Ref. 2:p. 21]

The Army's plan, Spare Parts Review Initiatives, consisted of sixty-four initiatives covering a wide range of spare parts related subjects such as: personnel, pricing, competition and automation. The Army's spare parts improvement initiatives are monitored by the Director of the Procurement and Production Directorate, Army Material Command. [Ref. 2:pp. 21-22]

The Air Force was recognized as a leader in attacking the problems that plagued spare parts acquisition according to a GAO report on DoD's initiatives to improve spare parts acquisition. The Air Force formed an analysis group, drawn from major Air Force Commands, Air Staff, General Counsel, DLA, and the Office of the Secretary of the Air Force, to look at the spare parts pricing problem and presented a
report in October of 1983. The Air Force Management Analysis Group, as the forum was called, presented 178 initiatives to improve the Air Force's procurement of spare parts. The Air Force monitors the progress of these initiatives by a board of general officers that meet each month and reports to the Secretary of the Air Force. [Ref. 2:p. 22]

The Defense Logistics Agency (DLA) implemented its spare parts improvement initiative throughout its organization and is monitored by its Competition Advocacy Program. DLA managers visited contractors serving DLA with the goal of obtaining technical data to increase the number of competitive buys. DLA also implemented a number of changes to help buyers, such as, increasing staffs, implementing breakout programs, and improving data storage and retrieval required to process a buy. [Ref. 2:pp. 23-24]

The Services and DLA were not the only Defense activities tasked to tackle the spare parts procurement problem in DoD. Several DoD officials were assigned specific tasks by the Secretary of Defense.

Secretary Weinberger ordered the DoD Inspector General to:

- notify the secretaries of the departments and the Director, DLA, of unreasonable pricing so refunds are sought in all cases where appropriate;

- audit, with the Defense Contract Audit Agency's assistance, defective pricing at contractor plants where spare parts pricing had been found unreasonable; and;
- work with the secretaries and the Director, DLA, to set implementation dates for the corrective action and to schedule follow-up audits. [Ref. 2:p. 24]

The Deputy Secretary of Defense was instructed to monitor the progress of DoD spare parts acquisition improvement initiatives. The Deputy Secretary of Defense held quarterly meetings with the departments concerned in which the status of the initiatives' implementation was reviewed.

Lastly, the Secretary of Defense named a Deputy Assistant Secretary of Defense for Spare Parts Program Management to:
- organize and improve consistency among initiatives already undertaken,
- define areas to which additional attention should be dedicated, and
- develop a strategy to ensure continuing focus on critical aspects of the spare parts management reform. [Ref. 2:p. 25]

B. THE BUY OUR SPARES SMART PROGRAM

The Navy's response to Secretary Weinberger's Spare Parts Procurement Memorandum was the Buy Our Spares Smart (BOSS) project. On 1 September 1983, the Chief of Naval Material (NAVMAT), Admiral Steven A. White, USN, announced the Navy's program to tackle the problem of spare parts pricing. Project BOSS was specifically created to "monitor and coordinate" actions that would address the problems and system weaknesses in the material acquisition process. The primary objective of the BOSS project was to pay fair and
reasonable prices for spare parts yet maintain the highest possible state of readiness in the fleet. [Ref. 4:pp. 2-5] The theme of the project was to ensure that supply system assets were properly utilized while concurrently reducing the cost of those parts to be purchased. [Ref. 1:p. 27]

The early beginnings of BOSS saw the drafting of some initiatives (Appendix B) designed to improve the acquisition of spare parts used by the Navy. The initiatives primarily focused the efforts of the BOSS program to implement Secretary Weinberger's 10-point plan for improvement of spare parts procurement in DoD. In many cases, the initiatives addressed problems that were identified in recent audits of the Navy's material procurement system. The BOSS initiatives were also consciously written to reflect policy guidance from Congress, the Chief of Naval Operations (CNO) and NAVMAT. It was believed that translation of these policy statements would enhance the ability of the BOSS program to obtain its goals. [Ref. 4:pp. 2-5]

With the establishment of the BOSS program under the direction of the Naval Supply Systems Command (NAVSUP) PML-550 (BOSS project office) began the job of changing the way the Navy acquires spare parts. The BOSS program was founded on three principles, or cornerstones, as referred to by the BOSS annual reports. These cornerstones are: competition, breakout, and fair and reasonable prices. [Ref. 5:p. 1]
1. **Competition**

Competition is the prime element of the BOSS program. Its primary purpose is to promote greater attention on the part of industry, procure goods and services for the Government at fair and reasonable prices, and to cause contracting activities to pursue successful competitive procurements. Successful procurements are those that are of reasonable cost, of high quality and delivered on time. [Ref. 5:p. i]

Competition is something in which every Navy activity can participate. Under the BOSS program all purchasing activities were required to adhere to BOSS guidance. Those activities having procurement authority in excess of $25,000 and or customer activities having annual procurements greater than $1 million were required to establish Competition Advocates. Competition Advocates were senior civilian or military personnel, as the title suggests, charged with seeking out and implementing ways to increase competition. For instance, Competition Advocates reviewed sole source procurements to ensure that the conditions had been met for a non-competitive acquisition. They were also tasked to pursue ways to eliminate barriers to competitive procurements and reduce dependence on sole source acquisitions. The Navy has Competition Advocates at more than 200 procurement activities.
Other actions that BOSS has pursued to increase competition is to provide more and improved information to potential Navy contractors and to ensure more contractors are aware of that information. The Navy also implemented a major program to automate the procurement system called the Automation of Procurement and Data Entry (APADE) System. APADE is a decision support system designed to enable buyers to obtain source and price history information. This system will allow buyers to make repetitive buys with greater ease and help to ensure that the most competitive price is paid. [Ref. 1:pp. 56-59]

2. Breakout

Breakout is one of the tools that the Navy can use to kindle the fires of competition. Breakout is a method used to reduce the cost of spare parts by either acquiring the spares directly from the original equipment manufacturer (OEM) or identifying parts (through value analysis) that can be competed rather than procured from the prime contractor or a sole source provider. The objective is to eliminate the middleman or pass-through costs added to a part. Research has shown that a spare part may experience a cost increase of 250% without any added value when purchased from a prime contractor or sole source supplier. In accordance with the BOSS annual report for 1987 the Navy can expect to reap a cost reduction of 25 to 33 percent on a successful breakout. [Ref. 6:p. 8]
All centrally managed parts in DoD have an Acquisition Management Code (AMC) assigned. The AMC is used to determine how an item should be procured. Technical personnel at Service and DLA activities screen parts and make AMC assignments. AMCs provide the buyer or contracting officer information about the acquisition method and sources from which the part may be acquired. AMCs (1 through 5) are defined as follows:

- AMCs 1 and 2 indicate that a spare part can be competed (2 is used if competed for the first time).

- AMCs 3 and 4 indicate that the spare part can be acquired directly from the actual manufacturer who may be the prime contractor (4 is used if the spare part is designated for the first time).

- AMC 5 indicates the spare part can be acquired only from the prime contractor even if the technical data indicates the part comes from a source other than the prime contractor. [Ref. 7:p. 2]

Breakout is considered to have occurred when a spare part previously coded AMC 5 is screened and then is either purchased through competition (AMCs 1 and 2) or purchased from the original manufacturer (AMC 3 and 4). A purchase action through competition is the preferred method of the two.

The Breakout program involves two basic processes: full screen and limited screen reviews. Full screen reviews can be performed on any replenishment part and is ideally accomplished well in advance of a planned procurement. A full screen review is a very detailed and in-depth data evaluation of replenishment spare parts with a specified
Annual Buy Value (ABV) of $10,000 or more. The Defense Acquisition Regulation Supplement (DARSUP) No. 6 calls for a 65 step process which includes, but not limited to, technical data review, locating missing data, and economic analysis. Full screen reviews are performed on parts that are expected to be purchased within the next twelve months and meet the above criteria. Full reviews are initiated at the Inventory Control Point (ICP) and breakout decisions are either approved at the ICP, the In-service Engineering Activity (ISEA) or the appropriate Hardware Systems Command. [Ref. 8:p. 3]

Limited screen reviews are applied to items already in the procurement cycle. In limited screen reviews only the essential elements of the technical data are evaluated. Limited screen reviews normally involve unsophisticated material that is not complex in nature. Limited screen reviews can be performed by any procurement activity with sufficient resources and the breakout decision is also made at that level. [Ref. 8:p. 3]

Other areas that have contributed to the Breakout process are Value Engineering, challenging proprietary data rights, and Reverse Engineering. Value Engineering is a systematic effort directed at analyzing functional requirements for the purpose of achieving lowest total cost, consistent with needed performance, reliability, quality, and maintainability. The overall objective of Value
Engineering is to identify and reduce unnecessary costs. Value Engineering is required on all spare parts contracts greater than $25,000 [Ref. 9] and is required on all supplies and services contracts greater than $100,000. [Ref. 10]

An important aspect of Breakout is the evaluation of technical data. Missing or inadequate technical data can severely handicap the Breakout process. This situation can be lessened by challenging the contractor's proprietary data, and ensuring that clauses are contained within the contract that provide for the procurement of technical data.

Reverse Engineering, as the name implies, is a method of working backwards by taking a product and producing technical specifications. This method is used when an item is sole source, technical data is not available, and the ABV of the item is high. The technical data is then used in the reprocurement of the item.

3. Fair and Reasonable Prices

The BOSS program recognizes two major approaches to ensure that the Navy pays only fair and reasonable prices for spare parts. The Fiscal Year (FY) 1987 BOSS Annual Report describes these approaches as follows:

The front-end approach uses the PRICE FIGHTER Detachment's capability to perform a SHOULD COST analysis and the BUYER TECH LINE. The back-fit approach is the Navy's Pricing Hotline, which provides an avenue for Navy personnel to report suspected overpriced items. [Ref. 5:p. 19]
Price Fighter is a group of engineers, industrial engineering technicians, and equipment specialists who perform Should Cost analyses on spare parts. The group is located at NSC Norfolk, VA. and performs detailed technical and pricing reviews to determine what a spare part "Should Cost" the Navy. The information provided by the group is used by buyers to acquire better prices from the supplier. Price Fighter also prepares recommendations for changes in specifications to eliminate unnecessary requirements, thus reducing the cost. [Ref. 5:pp. 19-21]

Other programs associated with the Price Fighter effort are the Buyer Tech-Line and "Bad Apple" programs. Both programs were added after the initial implementation of the BOSS project. The Buyer Tech-Line program is operated out of the Price Fighter Detachment in Norfolk and provides technical information to the entire Navy Field Contracting System (NFCS) to support intelligent, cost effective spares purchase. [Ref. 5:p. 19]

The "Bad Apple" program initiated in FY 1987, was designed to identify potentially overpriced items by their association with similar or associated items that had already been identified as being overpriced. For example, similar or associated items are those that are in the same weapon systems or manufactured by the same contractor. A Should Cost analysis is perform on the selected item to determine whether the price is fair and reasonable. [Ref. 5:p. 21]
The second of the two approaches in obtaining fair and reasonable prices is the Navy's Pricing Hotline. The Pricing Hotline is operated out of the Fleet Material Support Office (FMSO) and is the single point of contact for all pricing inquiries in the Navy. The Hotline investigates reports of overpricing it receives from the fleet, shore activities, and other service commands. The Hotline refers these reports to the procuring activity for analysis and the results are reported back to FMSO. The theme of this program is that: "No one is in a better position to know the purpose and the intrinsic value of spare parts and equipment than the technicians who use them." [Ref. 8:p. 5]

C. THE AUDIT AGENCIES AND ACTIVITIES AUDITED

Three agencies performed the selected audits of the BOSS program: the U.S. General Accounting Office (GAO), the Department of Defense Inspector General (DoDIG), and the Naval Audit Service. Each of these agencies have played a major part in the auditing and evaluation of the BOSS program.

The GAO and the Bureau of Budget\(^1\) were created by the Budget and Accounting Act of 1921. GAO's mission was a continuation of a mission given the Treasury Department by

\(^1\)The Bureau of Budget (BoB) was the predecessor of the Office of Management and Budget (OMB) which was established by the Legislative Reorganization Act of 1970. BoB was an executive agency whose principal mission was to support agencies directly responsible to the President of the United States.
the First Congress of the Republic in 1789. That mission was to ensure that the financial transactions of the United States Government were proper, accurate, and legal. GAO was established "primarily" as a congressional agency and was given independent powers for which it only accounts to the "deity." However GAO is dependent upon the Congress for its resources, powers, and responsibilities and upon the Presidency for the appointment of its agency head and first assistant, the Comptroller General and Deputy Comptroller General. [Ref. 11:pp. 1-2]

The scope of GAO's responsibilities has grown tremendously in the years since it was first established as a watchdog of the Government's financial transactions. GAO now has responsibility for the evaluation and investigation all aspects of the Government. The responsibilities extend into both military and civilian sectors and include not only financial transaction but program analysis. GAO has virtual authority to look at any sector of the Government and in some cases even the private sector (e.g., GAO has authority to review contractor's private records incident to negotiated Government contracts).

The DoD Office of the Inspector General (DoDIG) is the principal audit agency of DoD. DoDIG is headed up by a civilian appointed by the President and confirmed by the Senate. DoDIG is staffed by both civilian, and military personnel assigned to joint duty within DoDIG. The mission
of DoDIG is quoted directly from the directive that established the position of Inspector General and the Office of the Inspector General:

As an independent and objective office in the Department of Defense, the Office of the Inspector General shall:

- Conduct, supervise, monitor, and initiate audits and investigations relating to programs and operations of the Department of Defense.

- Provide leadership and coordination and recommend policies for activities designed to promote economy, efficiency, and effectiveness in the administration of, and to prevent and detect fraud and abuse in, such programs and operations.

- Provide a means for keeping the Secretary of Defense and the Congress fully and currently informed about problems and deficiencies relating to the administration of such programs and operations and the necessity for and progress of corrective action. [Ref. 12:p. 1]

The Inspector General for DoD carries out his responsibilities under the general supervision of the Secretary of Defense, but can not be inhibited in any audit or investigation unless the audit or investigation would affect information concerning sensitive operational plans, intelligence matters, on-going criminal investigations within DoD, and matters of national security. DoDIG can initiate audits or investigations independently or at the request of the Secretary. [Ref 12:pp. 2-3]

The Naval Audit Service is the central internal audit organization within the Department of the Navy (DoN). The Office of the Auditor General is responsible to the Under Secretary of the Navy and is charged with developing and
implementing DoN internal audit policies, programs, and procedures. The mission of the Naval Audit Service is to perform internal audits of DoN activities, functions, and programs and to issue reports on these audits describing conditions found, and recommendations for corrective actions. [Ref. 13]

The Naval Audit Service is partitioned into four regional offices and a headquarters office. The Naval Audit Service is an independent staff function and the sole entity or office within DoN designated to conduct the Internal Control function. Audits are performed at the initiation of the Auditor General of the Navy, the Secretary of the Navy, or upon command request.

The Naval activities audited by the agencies described above were all involved with spare parts management. For the purposes of this thesis, these activities have been grouped into seven categories by the researcher. The groupings were as follows:

- The Naval Aviation Supply Office (ASO). ASO is the inventory control point (ICP) for aircraft, missile, and related equipment spare parts.

- The Navy Ships Parts Control Center (SPCC). SPCC is the ICP for Navy ships, ship's weapon systems, and related equipment spare parts.

- Headquarters (HQ) and Systems Commands (SYSCOMS). HQ is the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps (CMC). SYSCOMS are the Naval Air Systems Command (NAVAIR), Naval Sea Systems Command (NAVSEA), and the Naval Supply Systems Commands (NAVSUP).
- Naval Supply Centers (NSC) and Naval Aviation Depots (NADEP). The NSCs are intermediate supply activities serving fleet and shore units of the Navy and to some extent the other Services. The NADEPs, formally the Naval Air Rework Facilities (NARF), are overhaul depots for Navy and Marine Corps aircraft. These activities were combined into one category due to the close relationship they have in the management of aircraft parts.

- Other Navy Activities. This is a catch all category for all other Navy and Marine Corps activities that were involved in selected audits concerning the BOSS program but did not meet the criteria for activities described in items 1 through 4. Examples in this category would be the Fleet Commanders, Naval Air Stations, and Marine Corps Bases.

- Other Military Services and the Defense Logistics Agency (DLA). DLA is wholesale supply activity serving all DoD components and departments.

- Service Plant Representative Offices (SERVPRO) and Defense Contractors. SERVPROs (e.g., NAVPRO and AFPRO) are offices operated by a designated service and located within a contractor's plant for the purpose of administering Government contracts.

Although ASO and SPCC are both ICPs for the Navy they were categorized separately because of their individual impacts and contributions to the BOSS program. Similarly many activities with dissimilar backgrounds were grouped together because of the close relationship that exists between them with regard to spare parts management. Along this same line, some major commands were not mentioned due to their limited impact upon the BOSS program. For example, the Space and Naval Warfare Systems Command (SPAWAR) was not mentioned in the HQ and SYSCOMS category.
D. SUMMARY

In response to the Secretary of Defense's memorandum and congressional pressure each Service and DLA developed an independent program to deal with the spare parts pricing within their respective departments. The programs had many similarities, such as increasing competition and breakout, but there were differences. The Navy's response to this situation was the establishment of the BOSS program in September of 1983. The BOSS program was based upon three principles: competition, breakout, and fair and reasonable prices.

To evaluate the programs and to determine the progress made in resolving the spare parts pricing problem, three activities were tasked to audit and investigate the Services and DLA's spare parts improvement programs. These activities are: GAO, DoDIG, and the Naval Audit Service.

For the purposes of this paper the activities audited were grouped into six categories: ASO, SPCC, HQ and SYSCOMS, NSCs/NSDs and NADEPs, other Navy activities, and other Services and DLA.
III. PRESENTATION OF THE INFORMATION

A. STATUS OF THE BOSS INITIATIVES

When the BOSS program was established in 1983 some 112 initiatives were drafted to improve Navy spare parts acquisition practices. Since that time 15 additional initiatives have been added for a total of 127. Each of the BOSS initiatives can be directly related to one or more of former Secretary of Defense Weinberger's original ten initiatives. Of the 127 initiatives, 108 have been completed, 13 remain open, five have been cancelled, and one is continuing as of 31 March 1988.

The BOSS initiatives have been arranged into ten categories representing the various action elements of the BOSS program. Although there are ten initiative categories they do not directly correspond to initiatives in the Secretary's ten-point plan. The 127 initiatives are broken out as follows: Requirements Determination, Breakout, Competition, Method of Procurement, Pricing, Price Surveillance, Contract Management, Training, Automated Systems, and Resources. Each of the different categories has a number of initiatives assigned to it and each initiative is assigned a specific code, such as RD-1 (i.e., Requirement Determination initiative number 1) and P-5 (Pricing initiative number 5). This was done to facilitate
the tracking and monitoring of the total 127 initiatives. The initiatives and their current status can be reviewed in Appendix B.

1. **Requirements Determination (RD)**

   This category is primarily concerned with policy relating to the use of supply system assets during every phase of the weapon system's life cycle. This is to ensure that adequate direction exists in determining when to use standard material (i.e., supply system material) or contractor furnished material. This category is also concerned with economic order quantities (EOQ) and the provisioning process. Examples of initiatives in this category are: review policy concerning the use of common-use items in contractor maintenance/supply packages, research EOQ rules to determine their effectiveness, and review repair verses buy decisions.

   The Requirements Determination category has nine initiatives of which five have been completed, one cancelled, and three are outstanding. Since implementation of the BOSS program only one additional initiative has been added: RD-9, compete spares buys for initially competed equipment (Aug 86). RD-1, RD-7, and RD-9 are the outstanding initiatives. [Ref. 14] 

2. **Breakout (B)**

   The topic of Breakout was discussed previously in Chapter II, and as subsequently stated, Breakout is
concerned with acquiring spare parts directly from the original equipment manufacturer (OEM) rather than the prime or sole source contractor. This category was primarily concerned with implementing procedures to increase the use of Breakout in spare parts procurement. Examples of Breakout initiatives are: make Breakout a factor in source selection of major systems; have contractors certify whether they manufactured, bought, assembled, or tested an item to be sold to the Government; and develop policy defining requirements for obtaining technical data for level II/III drawings.

The Breakout category contains 34 initiatives, of which 26 have been completed, two have been cancelled, and six are outstanding. B-10, B-11, B-13, B-21, B-23, and B-32 are Breakout initiatives still outstanding. Breakout has resulted in six new initiatives since the BOSS program has been started:

- Develop a supply policy to govern agreements when vendor purchases or borrows parts for design replication (B-29/Jan 85).
- Develop a plan to eliminate unnecessary contract specifications (B-30/Jan 85).
- Implement a Reverse Engineering program (B-31/Apr 85).
- Define policy for application of warranties to secondary items (B-32/Jul 85).
- Expand the ICPs' repair base (B-32/Dec 85).
- Propose a change to MILSTD 129 to include marking packages with manufacturer's FSCM/part number (B-34/Aug 86). [Ref. 14]
3. **Competition**

The primary purpose of this category is to promote increased competition in spare parts procurement. This category probably affects procurement activities more than any other since competition is a major cornerstone in the BOSS program. Examples of Competition initiatives are: establish competition goals for major field procurement activities, appoint Competition Advocates at activities with $25,000 authority and establish a Competition Advocated award, and establish procedures to review acquisition plans and business clearances for an adequate spare parts annex.

This category has 17 initiatives, of which 16 have been completed and one has been cancelled; all Competition initiatives have been executed. Since the implementation of the BOSS program the Competition category has added three new initiatives. These are: C-14, COMNAVSUP to meet with major suppliers to address spare parts pricing (Aug 85); C-15, ICPs are to prepare Competition Advocate pamphlets (Feb 86); and C-16, Define and establish "model business relationships" with major weapon systems manufacturers (Jul 85). The last initiative was later cancelled because it became obsolete before execution (OBE). [Ref. 14]

4. **Method of Procurement (MP)**

The primary purpose of this category is to investigate alternative methods of procurement. Most alternative methods are already available, but have not been
fully implemented to the maximum extent possible. A major goal is to expand the coordination of spare parts procurement with the production of major systems for both Government and foreign military sales (FMS) customers. Examples of Method of Procurement initiatives are: continue actions under the Spares Acquisition Integrated with Production (SAIP) program and expand the use of multi-year contracts.

There are six MP initiatives and all six have been completed. There have not been any additional initiatives in this category since the implementation of the BOSS program. [Ref. 14]

5. Pricing (P)

This category is concerned with pricing techniques and methods to avoid overpricing. The emphasis, as well as one of BOSS's primary goals, is to obtain fair and reasonable prices for spare parts. Examples of Pricing initiatives are: request the Defense Contract Audit Agency (DCAA) to perform audits of contractor's pricing techniques, analyze prices of locally purchased material, and identify and attack instances where Navy is paying interdivisional mark-up on spare parts.

This category contains 14 initiatives of which 13 have been completed and one (P-9) is still being worked. Since the implementation of the BOSS program two new initiatives have been added: P-13, increase the awareness
of the Price Fighter mission (Sep 85); and P-14, conduct a
test of Price Fighter data available to buyers (Sep 85).
[Ref. 14]

6. **Price Surveillance (PS)**

The primary emphasis of the Price Surveillance
initiatives is to detect spare parts overpricing. Pricing
and Price Surveillance initiatives are very similar. The
principal difference lies with Price Surveillance being
involved with detection of overpricing, while Pricing is
centered with the prevention of overpricing. Examples of
Price Surveillance initiatives are: develop NAVSUP's
capability to perform Should Cost analysis, direct field
activities to identify potential overpricing, and develop
criteria for evaluating the Price Fighter program.

There are 20 Price Surveillance initiatives, of
which 19 have been completed and one cancelled; there are no
outstanding initiatives in this category. Since the
implementation of the BOSS program two new initiatives have
been added: PS-19, determine if National Industries for the
Blind/Federal Prison Industries prices should be challenged;
and PS-20, conduct a three month pilot Price Fighter Tech-
Line test. [Ref. 14]

7. **Contract Management (CM)**

This initiative is concerned with in the impact of
contracts and contract management on spare parts pricing.
The type of contract and its provisions have a major effect
on the price the Government pays for spare parts. Examples of contract management initiatives are: utilize Value Engineering incentive clauses to comply with DoD directives, and accept refunds from contractors who have overcharged.

There are seven initiatives in this category, of which six have been completed, with one (CM-7) outstanding. Since the implementation of the BOSS program the Contract Management category has experienced only one addition; CM-7, initiate a change to Cost Accounting Standards (CAS). [Ref. 14]

8. Training (T)

This category recognized the weaknesses of procurement training for buyers and sought to remedy the situation. Much greater emphasis has been placed on ensuring that the procurement work force is well trained and motivated. Examples of training initiatives are: review training/qualification criteria for the 1102 and 1105 series, and review requirements for contracting officer warrants.

There are five initiatives in this category and all five have been completed. There have not been any Training initiatives added since the implementation of the BOSS program. [Ref. 14]


These initiatives recognize the lack of automation in the procurement community. The Automated Systems
initiatives are concerned with increasing the automation of the administrative processes at ICPs, stock points, and Naval Regional Contracting Centers (NRCC). Examples of Automated Systems initiatives are: increase automation of the procurement process, and automate Navy technical data repositories.

There are six initiatives in this category, of which two have been completed and four (AS-1, AS-2, AS-4, AS-5) are outstanding. No new initiatives were added to the Automated Systems category since implementation of BOSS. [Ref. 14]

10. **Resources (R)**

This category is concerned with the allocation of resources for the BOSS program. It was realized early in the program that resources would have to be exclusively dedicated to make it work effectively. Examples of Resources initiatives are: increase resources to enhance competition and pricing at NAVSUP procurement activities, and implement a system to track the costs/savings of the BOSS program.

There are nine initiatives in the resources category and all have been completed. There have not been any additional initiatives added since the beginning of the BOSS program. [Ref. 14]
B. HOW FAR HAS BOSS COME?

Fiscal year 1987 was hailed as a banner year for the BOSS project. This was due to BOSS exceeding its competition and breakout goals, and realizing a total cost avoidance beyond expectation. This perspective is borne out in Rear Admiral Walker's, Commander of the Naval Supply Systems Command, comments on the program in the FY 1987 BOSS Annual Report. The first two paragraphs are quoted as follows:

- Fiscal Year 1987 was another outstanding year for the BOSS project. We have made major progress on all fronts in our efforts to improve the acquisition and management of spare parts. The Navy exceeded both competition and breakout goals set for the fiscal year, and realized a total cost avoidance beyond expectations. The cumulative cost avoidance for BOSS has now reached $1.3 billion\(^2\).

- During Fiscal Year 1987, the Navy awarded $27.3 billion in competitive contracts, which represents achievement of a 55.3 percent competition rate. We achieved our steady state level of 23,000 annual breakout reviews, as projected when Project BOSS began in August 1983. The cost avoidance attributable to the breakout effort totals $189.6 million. The Navy Pricing Hotline received a record high of 10,006 price challenges during the fiscal year. And, last but not least, the Navy's PRICE FIGHTER Detachment racked up $31.6 million in cost avoidance, up from $6.9 million in FY 86, through various uses of their SHOULD COST analyses. [Ref. 5:p. i]

In reality this narrative has been typical for the BOSS Program. BOSS has had tremendous success in meeting its goals since it was started in 1983. It is important to

\(^2\)This figure represents total cost avoidance since the implementation of the BOSS project in 1983.
examine the progress of the BOSS program since its inception. To facilitate this review this thesis will look at the progress of BOSS in terms of each of its three prevailing goals: competition, breakout, and fair and reasonable prices.

The emphasis on competition in Navy procurement has been pursued with intense vigor. This has been particularly true for those procurements involving spare parts purchase. The goal for FY 1987 was to compete 62 percent of NAVSUP's procurement dollars. The actual competition rate (NAVSUP) was 69.4 percent, exceeding the planned goal by 7.2 percentage points. In general the BOSS program has shown a steady increase in competition (measured in dollars). This trend can be easily observed for the Navy Field Contracting System (NFCS) in Figure 1. The same type of growth, although not as impressive in terms competition rate (i.e., 42% vs. 82.8% dollars competed), can also be seen at the Navys' ICPs (Figure 2). [Ref. 5:pp. 3-9]

The Breakout program has been and continues to be the most successful program within the BOSS project for achieving cost savings. FY 1987 saw a cost avoidance of $189.6 million, or 46% of the total cost avoidance realized by the BOSS program. During FY 1987 BOSS also passed its steady state goal of 23,000 annual breakout reviews, completing 23,026. In FY 1986 17,265 breakout reviews were completed which resulted in a cost avoidance of $212.7
Figure 1  Navy Field Contracting System Competitive Dollars (Less Inventory Control Points)  
Source: FY87 BOSS Annual Report

Figure 2  Combined Inventory Control Point Competitive Statistics  
Source: FY87 BOSS Annual Report
million, or 56% of total BOSS savings. In FY 1985 10,711 items were reviewed in which $192.7 million in cost avoidance was achieved, or 58% of BOSS's total savings. FY 1984 saw the screening of 5,189 items in which $154.8 million, or 80% of the total cost saving achieved by BOSS. [Ref. 5: pp. 9-19]

As can be seen from the information presented above, Breakout has been steadily increasing in the number of breakout reviews. However, the relative savings have consistently decreased as a "percent" of the total cost avoidance of BOSS. This seems to be a reasonable trend considering that breakout reviews were originally targeted on high value items, and as the program continues, items eligible for Breakout will decrease. This researcher anticipates that FY 1988 statistics for Breakout will be considerably less than the FY 1987 now that the steady state level of 23,000 annual breakout reviews has been reached. Figure 3 shows the trends in the Breakout program since its beginning.

As described in Chapter II, the Navy uses two major approaches to ensure that only fair and reasonable prices are paid for spare parts--the Price Fighter Detachment and the Buyer Tech-Line. Both programs have been successful for BOSS and both have experienced substantial growth since their inception.
Figure 3  Full Screen Breakout Results  
Source: FY87 BOSS Annual Report
Price Fighter's fundamental tool for ensuring that the Navy pays only fair and reasonable prices for spare parts is Should Cost analysis. In FY 1987 Price Fighter performed Should Cost analysis on 4,441 items for a total of $31.6 million in cost savings attributable to the program. In FY 1986 the program performed Should Cost analysis on 2,923 items for a total cost savings of $8.9 million. In FY 1985 2,527 items were analyzed by Should Cost methods resulting a $2.2 million cost savings. On average the Price Fighter Should Cost analysis determined that 67 percent of the items reviewed had been overpriced. Figure 3 shows a graphical representation of Price Fighter progress. [Ref. 5:p. 19]

The Navy Pricing Hotline, the single point of contact for all pricing inquires in the Navy, has also experienced substantial growth since its implementation. In FY 1987 the Pricing Hotline received over 10,000 inquiries on items suspected of being overpriced. To date, price decreases have been realized on about 22.8 percent of the total inquires received since the Hotline's inception in 1983. The Navy has also received over $1 million in refunds from contractors who had been identified as selling overpriced parts to the Navy. Figure 4 presents a graphical

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3Should Cost analysis is a concept of evaluation employing procurement, contract administration, audit, and engineering representatives to conduct an in-depth cost analysis. The goal is to develop a realistic price objective to enable buyers to negotiate better prices with suppliers. [Ref. 15:p. 60]
Figure 4  "Price Fighter Should Cost" Analyses Results
Source: FY87 BOSS Annual Reports

Figure 5  Navy Pricing Hotline
Source: FY87 BOSS Annual Report
illustration of the Pricing Hotline's growth. [Ref. 5:p. 25]

As with all programs in the Government resources are necessary to do the job. The BOSS program has enjoyed a continued increase in funding since its beginning. This fact is probably attributable to its ever increasing cost avoidance statistics. However, it should be noted that the cost avoidance, although increasing, is increasing at a decreasing rate. Table I shows BOSS's funding profile and the cost savings it has incurred.

C. BUY OUR SPARES SMART AUDITS

When Secretary of Defense Weinberger issued his memorandum in 1983 declaring war on overpriced spare parts, he issued ten specific objectives or initiatives for DoD to implement. The ninth initiative in that memorandum called for continuation of audits and investigations. The following is a quote of the ninth initiative.

*Ninth*, our audits and investigations of spare parts will continue. In addition to the eight audits the Inspector General has already issued, Service auditors have issued some 25 others. The Inspector General has six additional audits in progress, and will begin three others in the next few months. These will focus on the broader ramifications of how we buy our spare parts, what we pay for them, and how they are used and controlled once they enter the inventory. In addition to investigating aircraft engine spare parts, we will now look at cost growth in electronic spares and contract administration activities. [Ref. 3]

All Services and the Defense Logistics Agency (DLA) underwent numerous audits of their programs involved with
the elimination of spare parts overpricing problems. Most of the audits were designed to measure the effectiveness of these programs and their compliance with the Secretary's initiatives. GAO and DoDIG were generally tasked with auditing DoD as a whole and the various Service auditing

| TABLE I |
| BOSS FUNDING |
| (In Millions of Dollars) |

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| SUMMARY OF BOSS COST AVOIDANCE |
| (In millions of dollars) |

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<td>212.7</td>
<td>189.6 749.8</td>
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<td>31.6 40.5</td>
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<td>271.1 986.3</td>
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Source: FY 1987 BOSS Annual Report
agencies (e.g., Naval Audit Service) concerned themselves with Service specific audits. The Naval Audit Service is the Navy's auditing agency responsible for the conduct of audits and investigations of the Navy, and the Marine Corps. It was common practice for the various Service auditing agencies to assist in audits conducted under the supervision of DoDIG.

Since the implementation of the BOSS project, annual reports have listed 16 audits that have been completed. The FY 1987 BOSS annual report also lists nine other audits in progress at the end that year. Four of these audits had been completed and draft reports are available. It was these 20 completed audits that were selected for examination in determining the impact of agency audits on the BOSS program. [Refs. 5, 16, 17, 18]

Although there have been several other audits of the BOSS program they were not examined\(^4\). An interview with Commander Frank Keller, SC, USN, BOSS Project Director, stated that the audits listed in the BOSS annual reports were the most important since they were/are actively followed by the BOSS project office, and of highest interest to the upper echelons of NAVSUP. [Ref. 19] Appendix C is an index of the selected audits that were examined in this thesis.

\(^4\)Most of these audits would have been of field activities like local purchasing offices to ensure their compliance with directives and regulations. The results of these audits would not have a significant affect on BOSS policy.
D. GOVERNMENT AUDITS AND THE BOSS PROGRAM

A fundamental premise of the U.S. Government is the accountability of its actions to the people it serves. One of the methods the Government uses to evaluate its performance are audits. Forty-five years ago Government auditors concentrated on the financial accuracy of Government bookkeeping. In recent years the auditing agencies in the Government have expanded the scope to include reviews of the efficiency and effectiveness of Government operations.

In 1972 the Comptroller General of the United States (GAO) issued Standards for Audit of Government Organizations, Programs, Activities and Functions (also known as the "yellow book"), a publication designed to standardize audit procedures for Government entities. These standards have gained wide acceptance by all governmental agencies and Federal legislation requires that all Inspector Generals follow them. [Ref. 20:p. i]

All audits examined under this thesis were performed in accordance with generally accepted Government auditing standards. Generally accepted Government auditing standards and auditing procedures are outlined within the yellow book which specifies three types or categories of audits for Government activities. For the purposes of this thesis the reader should have a basic understanding of the types of audits that are specified. The following is an excerpt from the yellow book describing the three audit types.
- Financial and compliance--determines (a) whether the financial statements of an audited entity present fairly the financial position and the results of financial operations in accordance with generally accepted accounting principles and (b) whether the entity has complied with laws and regulations that may have a material effect upon the financial statements.

- Economy and efficiency--determines (a) whether the entity is managing and utilizing its resources (such as personnel, property, space) economically and efficiently, (b) the causes of inefficiencies or uneconomical practices, and (c) whether the entity has complied with laws and regulation concerning matters of economy and efficiency.

- Program results--determines (a) whether the desired results or benefits established by the legislature or other authorizing body are being achieved and (b) whether the agency has considered alternatives that might yield desired results at a lower cost. [Ref. 20:p. 3]

An audit conducted on Government agencies can include one, two or all three of these audits. In most cases a single audit will contain one or at most two of the audit types. Audits conducted on the BOSS program were restrained to Economy and Efficiency, and/or Program Results. All selected audits were classified in the Economy and Efficiency category, one third of the audits (7 of 20) were to evaluate Program Results, and none were conducted for the purpose of Financial and Compliance evaluation.

It is important to note that the "Economy and Efficiency" audits not only evaluate the efficiency and effectiveness of a program but also the activity's compliance with program objectives. This point is emphasized since "Financial and Compliance" audits are only concerned with compliance with laws and regulations that may have a material effect upon the "financial statements." The
name may tend to imply Financial and Compliance audits are concerned with all aspects of compliance rather than those that are just financial. This explains the lack of Financial and Compliance audits among the 20 selected audits.

As mentioned in Chapter II the activities audited were grouped into seven categories to facilitate the presentation of this thesis. As a reminder the categories were: ASO, SPCC, HQ/SYSCOM, NSC/NADEP, other Navy, SERVPROs and contractors, and other Services and DLA. Table II shows the selected audits, activities audited, the agency performing the audit, the type of audit, and the agency requesting the audit. This information will be used in the analysis of the impact of BOSS audits in the next chapter.

All audits presented at least one finding and in the majority of cases, several findings were presented. The following is an excerpt from the Standards for Audit of Governmental Organizations, Program, Activities, and Functions on the definition of audit finding.

Finding/results - The result of information development; a logical pulling together of information and arriving at conclusions on the basis of the sum of the information about an organization, program, activity, function, condition, or other matter which was analyzed or evaluated and considered to be of interest, concern, or use to the entity. It need not be critical or be concerned only with deficiencies or weaknesses. Purely informational findings need not include conclusions. A finding could be the basis for action by the entity, but a recommendation is not part of a finding. [Ref. 20:p. 66]
<table>
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<th>AUDIT AGENCIES, AGENCY REQUESTING AUDIT, AUDIT TYPE, AND ACTIVITIES AUDITED</th>
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1. REVIEW OF THE MANAGEMENT OF THE J-52 AIRCRAFT ENGINE NAV Y T 30113
2. DOD MAKING PROGRESS ON IDENTIFYING AND MARKETING OBSOLETE REPAIR PARTS GAO/NSIAD 85-47
3. AIRCRAFT ENGINE SPARE PARTS PRICING, COSTING, NEGOTIATIONS, AND DOD REVIEW FUNCTIONS DOD-85-081
4. ACTIONS TAKEN BY DOD ON GAO RECOMMENDATIONS TO IMPROVE SPARE PARTS REQUIREMENTS DETERMINATIONS GAO/NSIAD 85-61
5. COMBINED PROCUREMENT PROCEDURE NEEDS PROVISIONS FOR AUDIT VERIFICATION GAO/NSIAD 85-112
6. CONTRACTING OFFICERS' EXPLANATION FOR PRICE INCREASES ON 125 SPARE PARTS GAO/NSIAD 85-119
7. MULTILOCATION DOD-WIDE FOLLOW-UP AUDIT OF SPARE PARTS PROCUREMENT NAVY T 48185

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<td>DODIG</td>
<td>SECARMY</td>
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TOTAL: 0 19 7 10 7 8 1 1 6 11
In reviewing the findings in the selected audits it became apparent that they would have to be classified and categorized to effectively evaluate them. This researcher classified the audit findings into nine categories based on the findings of these audits. That is to say that audit categories, although general in nature, are not generic to all Government audits. These categories have been specifically tailored to meet the requirements of evaluating these 20 Audits. The findings were arranged into the following nine categories:

- Program or procedures are inefficient, uneconomical, and/or ineffective.

- Program or procedure is efficient, economical, and/or effective.

- Program or procedure is not in compliance with laws, regulations, and/or instructions.

- Program or procedure is in compliance with laws, regulations, and/or instructions.

- Program or procedure has deficiencies, lack of guidance, or insufficient instruction or regulation.

- Progress is being made in program or activity.

- Excess prices were paid by the Government.

- Fair and reasonable prices were paid by the Government.

- Other findings (not in any category above).

One other important note about the findings concerns their extraction from the audit data. Some audits' findings were rigidly formatted and specifically listed as audit findings. These findings were easily recognized and extracted from the reports. Other audits' results were of letter form and did not specifically list their findings.
(i.e., numbered each finding), but rather generalized them in the body of the letter. These were of greater difficulty to extract from the audit reports, and are subject to some discretion on the part of this researcher. For example, this researcher may have identified a statement as a single audit finding while another may have segregated it into two audit findings. However, it is doubtful that this fact will present any material problems that would sway the final results of this study.

An area that is closely related to audit findings are the audit objectives. Prior to beginning an audit the Standards of Governmental Organizations, Programs, Activities, and Functions requires the auditing activity to develop an audit program. An audit program lists detailed steps and procedures that are to be followed during the course of an audit. The audit program contains such information as the scope of the audit\(^5\), background information, and the audit objectives. The audit objectives were not classified and compared as done with the audit findings. This would have simply duplicated the information contained within the findings. The audit objectives were also considered to have a negligible impact on the BOSS program. The audit objectives are merely the plan of action

\(^5\)Scope of an audit is defined as a section in the audit report that indicates the type of audit performed; the extent of the audit; and the specific organizations, programs, activities, and functions covered. [Ref. 20:p. 71]
for the audit, not the resulting findings and conclusions. Table III is a presentation of the results of the findings.

The last category of information this researcher reviewed was the audit recommendations. Recommendations are not always required and some audits are only informational in design. The goal of this audit is to present the condition in a logical manner rather than determine what is right or wrong. The following is a definition of audit recommendations from the Standards for Audit of Governmental Organizations, Programs, Activities, and Functions.

Audit recommendations--The auditor's recommendations in the audit report are for actions to improve problem areas noted in the audit and to improve operations. [Ref. 20:p. 71]

This researcher found the same problem with recommendations as with findings. The recommendations had to be classified and categorized to facilitate evaluation. Again, as in the case of the findings, some audit recommendations were easily extracted from the audits since they were readily identified (i.e., numbered recommendations). Still others were dispersed throughout the audit report letter and had to be compiled. Again, as with the findings, recommendations in these cases were subject to the discretion of the researcher. As with the audit findings, there will be no significant impact on the final conclusions of this thesis.

The recommendations were classified into eight categories and, as in the case of the findings, were
<table>
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<th>TABLE III</th>
<th>AUDITS AND RECOMMENDATIONS CLASSIFICATION</th>
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<tr>
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<td>REVIEW OF THE MANAGEMENT OF THE J-52 AIRCRAFT ENGINE NAVY T 30113</td>
<td>PROGRAM OR PROCEDURES ARE INEFFECTIVE, UNECONOMICAL OR ILL CONCEIVED</td>
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<tr>
<td>3</td>
<td>DOD MAKING PROGRESS ON IDENTIFYING AND MARKETING OBSOLETE REPAIR PARTS GAO/NSIAD 85-47</td>
<td>PROGRAM OR PROCEDURE IS ECONOMICAL, EFFECTIVE</td>
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<td>4</td>
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<tr>
<td>5</td>
<td>AIRCRAFT ENGINE SPARE PARTS PRICING, COSTING, NEGOTIATIONS, AND DOD REVIEW FUNCTIONS DOD-85-081</td>
<td>PROGRAM IS IN COMPLIANCE WITH LAWS, REGULATIONS, DIRECTIVES</td>
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<td>6</td>
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<td>7</td>
<td>ACTIONS TAKEN BY DOD ON GAO RECOMMENDATIONS TO IMPROVE SPARE PARTS REQUIREMENTS DETERMINATIONS GAO/NSIAD 85-61</td>
<td>PROGRAM HAS DEFICIENCY, LACK OF GUIDANCE, OR INSUFFICIENT INSTRUCTION OR REGULATION</td>
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<tr>
<td>9</td>
<td>COMBINED PROCUREMENT PROCEDURE NEEDS PROVISIONS FOR AUDIT VERIFICATION GAO/NSIAD 85-112</td>
<td>PROCESSING MADE IN PROGRAM OR ACTIVITY</td>
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<td>11</td>
<td>CONTRACTING OFFICERS' EXPLANATION FOR PRICE INCREASES ON 125 SPARE PARTS GAO/NSIAD 85-119</td>
<td>EXCESS PRICES PAID FAIR AND REASONABLE PRICES WERE PAID</td>
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<td>12. FOLLOW-UP AUDIT: PROCUREMENT OF SPARE PARTS NAVY T28165</td>
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### TABLE III (PAGE 3 OF 3)

**AUDITS AND RECOMMENDATIONS CLASSIFICATION**

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<tr>
<th>Program or Procedures</th>
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<td>Inefficient, Uneconomical or Ineffective</td>
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<td>Program has Deficiency, Lack of Guidance, or Insufficient Instruction</td>
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| TOTAL | 3 | 4 | 14 | 6 | 9 | 17 | 2 | 3 | 3 |

55
categorized specifically for the purpose of evaluating information contained within selected audits. These recommendation categories are not generic to all audits; they were specifically designed for the 20 audits reviewed. The recommendations were broken down into the following eight categories:

- Provide funding, resources (i.e., material, personnel), and/or authority to program or agency/department.
- Comply with existing instruction(s), regulation(s), or law(s).
- Develop/Implement a program, procedure, guideline, or instruction.
- Assess or conduct further study on condition, program, or review or monitor a situation.
- Discontinue program, procedure, or action.
- Seek refund of support refund policy.
- Standardize/Consolidate program, procedure, or instruction.
- Take other specific action (not specified above).

Table IV, on the next page, presents the recommendation information in tabular form.

E. SUMMARY

When the BOSS program was implemented in 1983 its three basic principles were; competition, breakout, and fair and reasonable prices. To support those principles, 112 initiatives were drafted as a means of accomplishing those principles. Those 112 initiatives were also classified into ten different categories: Requirements Determination (RD), Breakout (B), Competition (C), Method of Procurement (MP),
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<th>Comply with Existing or New Legislation, Regulation, or Law</th>
<th>Develop/Implement a Program, Procedure, or Instruction</th>
<th>Assess or Conduct Further Program Review or Monitor Situation</th>
<th>Discontinue Program, Procedure, or Action</th>
<th>Seek Refund or Support refunded Policy</th>
<th>Standardize/Consolidate Program, Procedure, or Instruction</th>
<th>Take Other Specified Action</th>
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<td>3.</td>
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<td>5.</td>
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<td>6.</td>
<td>Contracting Officers' Explanation for Price Increases on 125 Spare Parts GAO/NSIAD 85-119</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<td>None</td>
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TABLE IV (PAGE 1 OF 3) AUDITS AND RECOMMENDATIONS CLASSIFICATION
### TABLE IV (PAGE 2 OF 3)

AUDITS AND RECOMMENDATIONS CLASSIFICATION

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| Total | 2 8 10 6 4 3 2 2 |
Pricing (P), Price Surveillance (PS), Contract Management (CM), Training (T), Automated Systems (AS), and Resources (R).

Since the beginning of BOSS an additional 15 initiatives were added to the original 112. The Breakout category received six additional initiatives, Competition received three, Pricing and Price Surveillance received two each, and Contract Management and Requirements Determination each received one additional initiative.

Each year BOSS has reported tremendous strides in the accomplishment of its yearly goals. To date, the BOSS program has generated $1.3 billion in cumulative cost avoidance. As of the conclusion of FY 1987, the Navy was now competing 55.3 percent of its procurement dollars. The Breakout program has now reached its steady state level of 23,000 annual full screen breakout reviews and the Pricing Hotline now receives more than 10,000 price challenges a year.

Secretary Weinberger's ninth initiative (from the original 10 initiatives) called for continued audits and investigations of spare parts pricing. GAO, DoDIG, and the Naval Audit Service were tasked to carry out these audits and present findings and recommendations. The activities that were audited were arranged into seven categories: ASO, SPCC, HQ/SYSCOM, NSC/NAD, other Navy, SERVPRO/contractors, and other Services and DLA. The audits that were selected for review in this thesis were all audits that had been
completed and listed in the BOSS annual reports and any audit listed as on-going in the FY 87 annual report and had been completed (in draft form) as of 31 January 1988. There were 20 audits in all that were reviewed.

The auditing agencies are all subject to the procedures provided by the Standards for Audit of Governmental Organizations, Programs, Activities, and Functions. These standards provide for three types of audits; Financial and Compliance, Economy and Efficiency, and Program Results. All of the 20 audits had Economy and Efficiency audit requirements, seven of 20 audits evaluated Program Results, and none were of the Financial and Compliance type. It should be noted that more than one "type of audit" can be combined into an audit or investigation of an activity.

The audit findings were broken down into nine classifications to facilitate the evaluation of the audit findings. The recommendations were broken down into eight categories for the same reason. It is emphasized that these findings and recommendations categories were developed specifically for this thesis and are not generic to all audit findings and recommendations.
A. BOSS GOALS AND INITIATIVES

As previously discussed in Chapter II, the three interdependent goals of the BOSS program are: breakout, competition, and obtaining fair and reasonable prices. These goals have not changed since the inception of the program. Chapter II also listed the BOSS goals and supporting initiatives. These initiatives can be thought of as objectives to meet these goals. After all, it would be extremely difficult to actively pursue a project as complex as BOSS with only conceptual goals, and no tangible objectives to obtain. The outcome of the program would also be difficult to measure without objectives relating to program goals.

The initiatives, unlike goals, did experience change as the BOSS program matured. The ten basic categories of topics (RD, B, C, etc.) discussed in Chapter III remained unchanged (i.e., whole categories were neither added to or deleted from). However, six categories did experience additions or deletions to their respective initiatives. The BOSS program added 15 initiatives and cancelled five.

In reviewing the initiatives that were later added to the program, two distinct areas emerged. These were the Price Fighter program, and improving the relationships with
contractors. Each of these areas were supported with three additional initiatives. The Price Fighter program had two initiatives in the Pricing category: increase the awareness of the Price Fighter Mission (P-13), and conduct a test of Price Fighter data available to buyers (P-14). The Price Fighter program also had a related initiative in the Price Surveillance category: conduct a three month pilot test of the Pricing Hotline providing real time "Should Cost" estimates within a responsible time frame for live buys at NSC Norfolk, NAS Norfolk, and NAS Oceana, and assess the value of Price Fighter interface with buying activities and provide recommendations for permanent a program (PS-20).

The second area, improving relationships with contractors, added three initiatives to the Competition category. The initiatives were:

- COMNAVSUP meet with major Navy suppliers to address spare parts pricing and cost issues (C-14),

- ICPs prepare a command Competition Advocates pamphlet that includes a section on availability of projected buy requirements. The pamphlet is to be included with local publications on how to do business with the ICP, (C-15), and

- define and establish "Model Business Relationships" with major weapon systems manufacturers which we are dependent on for non-standard and standard repair parts (C-16).

The other nine initiatives added to the BOSS program were of the cats and dogs variety and did not appear to relate to more than one initiative in any one area. Some of these initiatives were generic to the Navy, such as;
expanding the use of ship repair contracts by the ICPs (B-33), and some of the initiatives would have impacts outside of the Navy, such as; initiate a change to the existing Cost Accounting Standards (CAS) which allows contractors to allocate overhead and general and administrative (G&A) burdens to spares orders, which in many instances, are substantially disproportionate to the value added by the contractor (CM-7).

B. BOSS PROJECT RESULTS

Although, it was stated in Chapter I that this thesis did not intend to evaluate the BOSS program, it is important to look at where it has been and where it appears to be heading. The BOSS program has been active for four years and now appears to be leveling out. The productivity of the program has demonstrated a decreasing trend when measured in terms of return on investment (ROI)\(^6\). In FY 1984 the BOSS program experienced a 5.5 to 1 ROI steadily declining with each passing fiscal year. In FY 1985 the ROI was 5 to 1, in FY 1986 ROI was 4.3 to 1, and in FY 1987 the ROI was 3.1 to 1. Although, ROI for each fiscal year has been substantial, even though declining, it appears that BOSS is rapidly approaching a plateau.

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\(^6\)ROI is calculated by taking the total cost avoidance for each fiscal year and dividing it by the total investment. These figures are available in Table I.
Another indication of the BOSS program's maturity is the steady decline of BOSS's most lucrative program; Breakout. In FY 1984 the Breakout program accounted for more than 80 percent of the cost avoidance achieved by BOSS. In FY 1985 this ratio declined to 59 percent, then to 56 percent in FY 1986, and finally to 47 percent in FY 1987. It is important to note that, although Breakout experienced a declining share of the total cost avoidance, its monetary savings increased each successive year with the exception of FY 1987 (see Table I).

The Competition and Price Fighter programs on the other hand both provided an increased share of BOSS's cost avoidance as the program matured. In FY 1984 Competition accounted for 11 percent of the BOSS total cost avoidance, which steadily increased to 39 percent in FY 1987. The Price Fighter program increased from less than one percent of total cost avoidance in FY 1984 to eight percent in FY 1987. Though these programs had significant increases, they were insufficient to offset the decreases in the Breakout program and still maintain the 5.5 to 1 ROI experienced at the beginning of the program. Other programs in the BOSS project accounted for less than 10 percent of the total cost avoidance and maintained a relatively constant percentage of the total cost avoidance. (see Table I)

The last area that tends to indicate that the BOSS program has reached maturity, is the attainment of 23,000
full screen breakout reviews as a steady state level. Each previous fiscal year BOSS had been increasing the number of breakout reviews, but with the attainment of the steady state, Breakout's share of the total cost avoidance should decline even further, and no doubt augmented with a decline in the monetary savings in FY 1988.

It should also be noted that the BOSS program did not remain stagnant during the past four years. As can be seen in Table I, funding for the BOSS project has increased with each successive year. Most the growth appears to be expansion of existing BOSS programs, however, there were several programs that were implemented after the initiation of the BOSS project. The Price Fighter project was started in December of 1983 and experienced rapid expansion from primarily ICP use to all Navy Field Contacting Activities through the Buyer-Tech Line program.

Reverse Engineering, although not a new idea, began with a pilot project in FY 1985 with 20 candidate items for analysis. It tripled its program size in FY 1986 with 59 candidate items for analysis. New programs for FY 1987 were the "Bad Apple" program and the Replenishment Part Purchase or Borrow (RPPOB) program. The RPPOB program was initiated in response to congressional direction under Public Law 98-525.
C. BOSS AUDITS

Activities performing audits on BOSS programs were GAO, DoDIG, and the Naval Audit Service. As presented earlier in this thesis, GAO and DoDIG generally concentrated on performing DoD-wide audits, while the Service audit agencies concentrated on Service-related audits. Of the 20 audits selected for review in this thesis, GAO performed nine (45%), DoDIG performed seven (35%), and the Naval Audit Service conducted four (20%) (see Table II).

Each audit required some type of initiation or request to perform the audit. The requests came from one of four general organizations: Congress, the Office of the Secretary of Defense (OSD), the Department of the Navy (DON), or the individual command (i.e., MCLB Albany). A congressional request came from either an individual congressman or a committee (e.g., House Armed Services Committee). A request from OSD could either be the Secretary, Deputy Secretary, or Assistant Secretaries. Requests from DON could be initiated by the Secretary of the Navy, Under Secretary, or Assistant Secretary. Individual commands can request an internal command audit from their respective audit agencies (e.g., Naval Audit Service for Navy and Marine Corps commands and DoDIG for DLA). Of the selected audits: OSD requested eight audits, Congress requested six audits, DON requested four of the audits, and individual commands requested two of the audits.
Activities audited were segregated into seven categories to facilitate the accomplishment of this thesis: ASO, SPCC, HQ/SYSCOMS, NSC/NADEP, other Navy, SERVPROs/contractors, and other Services and DLA. The ICPs, HQ/SYSCOMS, SERVPROs/contractors, and other Services and DLA were the most heavily involved in the selected audits. ASO was involved in ten (50%) audits, SPCC in seven (35%) audits, HQ/SYSCOMS in eight (40%) audits, NSCs/NADEPs in one (5%) audit, other Navy in one (5%) audit, SERVPROs/contractors in six (30%) audits, and other Services and DLA in 11 (55%) audits.

Of the three types of audits described in the Standards For Audit Of Governmental Organizations, Programs, Activities, and Functions (generally accepted Government auditing standards) only two audits types were conducted on the BOSS program, Economy and Efficiency and Program Results. There were 20 (100%) Economy and Efficiency audits, seven (35%) Program Results audits, and no Financial and Compliance audits conducted. It should be noted that all audits had Economy and Efficiency requirements, while seven had additional requirements for the evaluation of Program Results (see Table II).

The audit findings were grouped into nine categories as discussed in Chapter III. Each finding in an audit was then categorized and summarized in Table III. The results of that summary were: 17 findings of "progress being made in
program or procedure," 14 findings of "program/procedure was not in compliance with laws, regulations, or directives," nine findings of "program has deficiency, lack of guidance, or insufficient instruction or regulation," six findings of "program is in compliance with laws, regulations, or instructions," four findings of "program or procedure is inefficient, uneconomical, ineffective," three findings of "program is efficient, economical, effective," three findings of "fair and reasonable prices were paid," three findings of "other findings," and two findings of "excess prices paid for spare parts." Notice that there are 61 findings among the 20 audits. Each audit had one to seven findings and in some cases had mixed findings (i.e., positive and negative). For example, GAO audit, *Procurement: Defense Logistics Agency Implementation of Spare Parts Initiatives (GAO/NSIAD 87-149)* had one finding of "program is in compliance with laws, regulations, instructions," two findings of "program has deficiency, lack of guidance, or insufficient instruction or regulation," three findings of "progress being made," and one finding of "other findings." See Table III for detailed breakout of finding. In general the findings tended to be split evenly between positive and negative findings. There were 29 positive findings and 32 negative findings.

The audit recommendations were also categorized to facilitate the accomplishment of this thesis. The
recommendations were grouped into eight categories as presented in Table IV. The selected audits produced ten recommendations to "develop/implement a program procedure, guideline, or instruction": eight recommendations to "comply with existing instructions, regulation, or law"; six recommendations to "assess or conduct further study on circumstance or condition"; four recommendations to "discontinue program, procedure, or action"; three recommendations to "seek refunds or support refund policy"; two recommendations to "provide funding, resources, and/or authority; two recommendations to "standardize program, procedure, or instruction"; and two recommendations "to take other specified actions."

The recommendations, as with findings, in many circumstances were directed at DoD in general, and may or may not be specifically applicable to the Navy. In all cases the recommendations were fashioned to improve the efficiency of the program or procedure or to comply with regulations or instructions.

A comparison was also accomplished between the audit findings and recommendations, and their resulting changes to the initiatives. This was somewhat of a subjective process since most audit findings and recommendations were written to address specific problems during a specific period. The initiatives on the other hand, tend to be more general in nature and are directed at correcting conditions within the
Navy's procurement activities. Another problem encountered in this analysis was the fashion in which a recommendation, finding, and/or initiative was written. It was not always readily apparent that a recommendation or finding was related to a specific initiative.

The last area of concern, when comparing the initiatives with the findings and recommendations, is the timing of the introduction of the initiative and the publication of the audit report. Many of the audit findings and recommendations already had initiatives assigned to address the discrepancy. This implies that the BOSS program already had the problem identified, and steps were being taken to correct the discrepancy. However, it would be important to look at the dates initiatives were introduced, and compare them to audit report dates.

There are actually three dates to consider when reviewing any audit. The publication or completion date, the period covered by the audit field work, and the announcement of the audit.

The publication/completion date is very important because it signifies when the audit report has been sanctioned in its final format; the official report. The official report may take months to compile and draft. By the time its in the hands of the decision maker its contents may be obsolete, especially if the audit is on a very dynamic situation or condition.
A second important date is the period covered by the audit field work. Field work can take months or even years to complete, depending on the scope of work and the accessibility of data. In accordance with generally accepted Government auditing standards, auditors are encouraged to provide interim reports, especially for significant matters. Interim reports allow management to start correcting a condition before the official audit report is issued.

The last audit date to consider is the date the audit is announced. It is common practice to program or schedule audits to efficiently utilize the auditing staff, or to allow the activity being audited time to prepare for the auditors. When an agency or department knows a audit is impending, it will frequently develop a plan of action (POA) to deal with the audit. In many cases the department/agency being audited will uncover many of the discrepancies eventually surfaced (by the auditors) by doing a review and attempt to make corrections before the audit starts.

In comparing the audit findings and recommendations with the appended BOSS initiatives, only a handful of the audits appeared to have a direct impact. The audit that seemed to have the most significant impact was; Contracting Officer's

To efficiently use its audit staff the auditing agency may request that the audited agency prepare special reports or gather specific data. This is to ensure that the auditor's time is used effectively in auditing rather than spending a lot of time looking for information.
Explanation for Price Increases on 125 Spare Parts (GAO/NSIAD 85-119). This audit brought out two major findings, although there were several minor findings, that induced a response by the BOSS program.

The first major finding was that Government buyers were reluctant to spend time on price analysis because of management's emphasis on awarding greater numbers of contracts. Although the BOSS program already had initiatives to improve the work force through training and incentives, three additional initiatives were added in September of 1985. They were: increase the awareness of the Price Fighter mission (P-13), conduct a test of Price Fighter data available to buyers (P-14), and conduct a test of Hotline's ability to provide "Should Cost" estimates within a responsible time frame for live buys at NSC Norfolk, NAS Norfolk, and NAS Oceana. All three of the initiatives were designed to ensure that buyers have access to and use of information available through Price Fighter to make quality buys.

The second finding involved the way overhead and G&A burdens were allocated. According to the finding, CAS 418 (Allocation of Direct and Indirect Costs) allowed burden rates to be disproportionate. In some instances these

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8 GAO/NSIAD 85-119 audit did not provide any recommendations and only presented the findings from the interview of contracting officers and buyers.
disproportionate rates were distributed to spare parts orders. BOSS initiative CM-7 called for a change to the CAS standard since it allowed substantially disproportionate burdens to be added by the contractor.

Another significant audit finding spawning a new initiative involved; Follow-up Audit: Procurement of Spare Parts (Naval Audit Service T28165). That finding stated: of 258 sample buys, 50 (19%) were unreasonably priced due to insufficient information about sources of supply (e.g., items were purchased from the prime contractor vice the original equipment manufacturer since no other source of supply was listed). The initiative was a proposal to change MILSTD 129 to include marking of unit packages with actual manufacturer's FSCM and part number (B-34).

As noted earlier, several of the appended initiatives appeared several months prior to audit findings and recommendations, and it is impossible to tell whether they were initiated independent of the audit. For example, the September 1987 Audit of Vendor Technical Qualifications for Aircraft Engine Spare Parts Procured by the Navy ASO (DoD 6AP-810, an interim report), found that vendors did not have adequate guidance from ASO. The BOSS program had initiated (FY 1986) an initiative to have ICPs prepare a Competition Advocate pamphlet that included a section on availability of projected buy requirements. The pamphlet is to be included with local publications on how to do business with the ICP.
V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The audits did not appear to have a significant effect on the development (direction) of the BOSS program. The definition of significant effect is open to interpretation. There is no doubt that the selected audits had some effect on the BOSS program. For the purposes of this study an effect would be considered significant if one or more of the following events occurred:

- a change in the principal goals occurred by either an addition, deletion, or major alteration of an existing goals,

- a change in the initiative categories occurred by either an addition or deletion of an initiative category, or a major adjustment to initiatives within a category, or

- an addition or deletion of a major program element within the BOSS project.

As this study indicated there were no changes to the BOSS program goals. Although 15 initiatives were added and 5 were cancelled, there was not a significant change to the initiative categories, despite some initiative changes within initiative categories. In the area of programs within the BOSS project, nothing new has been added with the exception of the Price Fighter program. However, the Price Fighter program was implemented in December of 1983, less than four months after the inception of BOSS, so it is considered to have been part of the original BOSS program.
The audits have in fact helped to support and reinforce the BOSS program. Although audits are generally considered to be a distraction, especially by those being audited, it appears that the BOSS program has generally benefitted from the audits. The most numerous finding, when all audits are considered, was that "progress was being made." No doubt that positive findings such as these help to ensure continued growth and expansion of the program. They also tend to lessen congressional involvement.

The BOSS program has demonstrated definitive stability since its implementation in FY 1983 through FY 1987. The BOSS program has demonstrated amazing stability throughout its life. This can be seen by continuous funding increases and program growth (see Table I), and the lack of significant changes in its goals and programs.

The BOSS program was solidly established hence it has been an unusually stable program. By the virtue of its continued stability, the BOSS program had to have been extremely well organized. The primary endorsement for this conclusion, is again its stability and growth since 1983. Only recently has this changed. FY 1988 funding reductions have already occurred and further cuts are projected for FY 1989.

Only two of the 20 selected audits directly added to program growth. These were the only audits to be traced directly to the introduction of new initiatives; Contracting
Officer's Explanations for Price Increases on 125 Spare Parts (GAO/NSIAD 85-119) and Follow-up Audit: Procurement of Spare Parts (Naval Audit Service T28165). This is not to say that other initiatives did not have their roots in other audits. As previously explained, due to the manner in which findings and recommendations were written, and the timing of the introduction of audits and initiatives, it is highly possible that some of the initiatives, were in fact, derived from other audits. Along this same line, there is no doubt that the BOSS program recognizes some of its own weaknesses and initiated actions before audits had surfaced them formally.

Current audit trends are aimed specifically at compliance with regulations governing spare parts procurement. Recent trends indicate that BOSS related audits are inclined more and more toward compliance with regulations and accepted methods of managing spare parts. For example, the last three audits reviewed, (see Appendix D) were the direct result of Hotline inquiries and were concerned with regulation compliance.

The BOSS program is rapidly reaching a plateau or its point of equilibrium. The BOSS program has been experiencing a steady decline in its productivity when measured in terms of ROI. BOSS's ROI has declined from 5.5 to one in FY 1984 to 3.1 to one in FY 1987. This decline, coupled with the increasing emphasis on institutionalizing
the program within the fabric of procurement, unequivocally illustrates BOSS's ultimate termination as a program.

The U.S. Congress no longer appears to have a direct interest in spare parts pricing issues. Although this is a rather conspicuous conclusion, it does support the fact that there has been a tremendous improvement in the way the Military procures its spare parts.

B. RECOMMENDATIONS

Incorporate any further audits into the regular Procurement Management Reviews (PMR). Only one recommendation appears to be relevant to BOSS and that is to incorporate some aspect of future audits into the PMRs. Specifically, anything to do with procurement processing should be audited by PMR teams and auditors. BOSS is a mature program with established goals, objectives, and methods. Therefore, compliance with present rules, regulations and processes would lend itself well to the PMR process. The primary reason for this recommendation is that recent audits have tended to move away from evaluating if a "new" program is achieving results, to whether it is following established procedures. Since PMRs are primarily concerned with program compliance issues, it seems to fall within their domain.
C. ANSWERS TO THE RESEARCH QUESTIONS

1. Primary Research Question
   a. What impact have the various audit agencies (GAO, DoDIG, and Naval Audit Service) had on the development of BOSS program?

   Agency audits have had an effect on the program, but are considered to be insignificant in directing changes for improving the program. The primary reason for this conclusion is that BOSS was well defined, organized and executed. The vast majority of audit findings were already being acted on by the BOSS program office before they were formally documented in an audit (i.e., had initiatives assigned).

2. Secondary Questions
   a. How do the audit agencies compare regarding audit findings, discrepancies, and recommendations?

   In general the auditing agencies appear to be consistent in their findings and recommendations. As stated earlier, the findings tended to be evenly split between positive and negative findings. All audit agencies recognized that progress had been made in the area of spare parts procurement, and of course, all audit agencies recognized common deficiencies. Most of the findings and recommendations were concurred with by the agencies being audited. The findings and recommendations that were the not concurred with, tended to be centered around whether
"enough" was being done to correct a situation, rather than if a deficient condition existed.

There did not appear to be a significant amount of duplication of effort in the 20 audits examined. However, none of the audits followed a formal schedule or plan (with the possible exception of Follow-up audits) and were directed at areas thought to contain inefficiencies by the organizations requesting the audit (i.e., Congress, SECDEF, SECNAV). This thesis did not have sufficient visibility of every audit conducted on the BOSS program (e.g., field purchasing activities) to make a determination if excessive audit duplication occurred.

b. Have the audit agencies recommendations been congruous with the goals and objectives of the Navy and DoD toward procurement?

In general the auditing agencies recommendations have supported the objectives and goals of the BOSS program. As noted in the conclusion section of this thesis, the most significant finding in most of the audits was that, "progress was being made" in the procurement of spare parts. Audits did not appear to hamper the BOSS program by introducing recommendations that were contrary to initiatives already underway. The goals and objectives of the auditing agencies and those agencies audited did not conflict.
c. Have the audit agencies recommendations furthered Buy Our Spares Smart’s progress toward improving spare parts pricing and to what extent?

The same basic answer from the previous research question (No. 2) holds true for this question. The audits have tended to support the goals and objectives of the BOSS program, and of the DoD initiatives in general.

D. AREAS FOR FURTHER RESEARCH

No areas of further research are recommended in the area of audits on the BOSS program.
APPENDIX A

SECDEF INITIATIVES

SECRETARY OF DEFENSE INITIATIVES

TEN POINTS (FROM MEMO OF 25 JUL 83)

1. SECDEF Initiative: Offer incentives to increase competitive bidding and reward employees who vigorously pursue cost savings.

2. SECDEF Initiative: Take stern disciplinary action against those employees who are negligent in implementing our procedures.

3. SECDEF Initiative: Alert defense contractors to the seriousness of the problem and our firm intention to keep prices under control.

4. SECDEF Initiative: Ensure that competition advocates challenge orders that are not made competitively or appear to be excessively priced.

5. SECDEF Initiative: Refuse to pay unjustified price increases.

6. SECDEF Initiative: Accelerate reform of basic contract procedures.

7. SECDEF Initiative: Take steps to obtain refunds in instances where we have been overcharged.

8. SECDEF Initiative: Cease doing business with those contractors who are guilty of unjustified and excessive pricing and who refuse to refund any improper overcharges.

9. SECDEF Initiative: Continue audits and investigations.

10. SECDEF Initiative: Eliminate excessive pricing, recover unjustified payments and take corrective action against those contractors and employees who are either negligent in performing their duties or are engaging in excessive pricing practices.
ADDITIONAL INITIATIVES (FROM MEMO OF 29 AUG 83)

11. SECDEF Initiative: Provide resources to induce desirable breakout, effective competitive procurement and improved pricing in the acquisition of spare parts.

12. SECDEF Initiative: Apply the DOD Parts Program to enhance competition.

13. SECDEF Initiative: Accelerate plans for acquisition of computer hardware and software to assist parts control personnel.

14. SECDEF Initiative: Institute action to identify disparities in spare parts prices within and among various procuring activities.

15. SECDEF Initiative: Employ value engineering to investigate parts where cost or price exceeds intrinsic value.

16. SECDEF Initiative: Assign more engineering resources to review new procurement data packages for accuracy.

17. SECDEF Initiative: Develop and test a procedure to make breakout of parts a factor in source selection for new major systems. Develop new incentive arrangements to reward contractors for cost savings generated by their efforts.

18. SECDEF Initiative: Negotiate contract data provisions which, as appropriate, reduce contractors' proprietary rights in data.


20. SECDEF Initiative: Revise performance evaluation factors for acquisition and logistics managers. Include emphasis on spare parts pricing, breakout, competition and value engineering accomplishments.


22. SECDEF Initiative: Consider in all contracts, as appropriate the government's right and ability to breakout and procure competitively spare parts.
23. SECDEF Initiative: Discourage use of government specifications and contractor proposed engineering designs that inhibit subsequent competitive procurement of spare parts.

24. SECDEF Initiative: Continue action on SECDEF Ten Point Program to ensure that prices paid for all spare parts are fair and reasonable.

25. SECDEF Initiative: Pursue appropriate refunds or other recoupments vigorously following any audit or other disclosure of incorrect pricing or overcharge.

26. SECDEF Initiative: Review existing contracts to fully address any and all opportunities for improved pricing of spare parts, including breakout and competition.

27. SECDEF Initiative: Instruct acquisition personnel to challenge any procurement action for spare parts where the estimated or negotiated price appears unrelated to intrinsic value.

28. SECDEF Initiative: Reexamine existing policy on patent and data rights arising under government funded IR&D.

29. SECDEF Initiative: Expand training curricula to ensure emphasis, understanding and technical skill level for all personnel engaged in the acquisition of spare parts.

30. SECDEF Initiative: Assign special task forces to review existing reprocurement data packages for spare parts with high annual buy values.

31. SECDEF Initiative: Evaluate and make recommendations for changes to existing authorization, appropriation, apportionment, budgeting and financial management practices and regulations pertaining to acquisition of spares.

32. SECDEF Initiative: Pursue with appropriate congressional committees and their staffs the merit of two-year authorization of replenishment spare parts and consumables.

33. SECDEF Initiative: Insist on contract terms and conditions in all future acquisitions that afford more equitable treatment and provide for greater assurance of fair and reasonable prices.
34. SECDEF Initiative: Automate data repositories to improved the acquisition, storage, update and retrieval of reprocurement technical data.

35. SECDEF Initiative: Evaluate and assess accomplishments under near and mid-term actions for additional policy direction, as appropriate.
APPENDIX B

BOSS INITIATIVES

SUMMARY OF BOSS INITIATIVES

RD - Requirements Determination  PS - Price Surveillance
B - Breakout  CM - Contract Management
C - Competition  T - Training
MP - Method of Procurement  AS - Automated Systems
P - Pricing  R - Resources

REQUIREMENTS DETERMINATION (RD)

INITIATIVE NO.: RD-001/Outstanding  SECDEF 10 PTS: #6

ACTION: Review procurement and provisioning policies to ensure that common use items are not automatically included in contractor interim and life cycle maintenance/supply support packages.

GOAL: Provide field activities with a summary of applicable existing references or, if no references exist, approval by COMNAVSUP of new policy guidance for issuance to field.

INITIATIVE NO.: RD-002/Completed  SECDEF 10 PTS: #6

ACTION: Prepare point paper describing what happened at NTEC and what changes should be made in provisioning policy for training devices.

GOAL: To promulgate new guidance, if required, regarding policy for provisioning training devices.

INITIATIVE NO.: RD-003/Completed  SECDEF 10 PTS: #6

ACTION: Research the EOQ issue decision rules to ascertain how they may be applied to decrease the overall cost of spare parts.

GOAL: Provide direction for use of EOQ/annual buys in order to decrease the overall cost of spare parts.

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INITIATIVE NO.: RD-004/Cancelled  SECDEF 10 PTS: #6

ACTION: Definitize policy on when supply system stock must be used to fill requirements identified by NSN, to include new construction, commercial DOP's, interim life cycle maintenance/supply support, and Navy supply system support.

GOAL: Provide a summary of applicable existing references or, if no references exist, promulgate new policy guidance to field activities.

INITIATIVE NO.: RD-005/Completed  SECDEF 10 PTS: #6

ACTION: Work with GSA/DLA to reduce the number of AAC "L" items bought in the field.

GOAL: Reduce the number of AAC "L" items to the lowest practical level.

INITIATIVE NO.: RD-006/Completed  SECDEF 10 PTS: #10

ACTION: Require mandatory application of the DOD Parts Control Program as defined by DODI 4120.19 in all weapon system contracts.

GOAL: Issue guidance requiring the inclusion of the DOD Parts Control Program in all acquisition POA&Ms.

INITIATIVE NO.: RD-007/Outstanding  SECDEF 10 PTS: #10

ACTION: Review existing policies and procedures for making repair versus buy decision on repairable items and issue appropriate guidance to field activities who make such decisions.

GOAL: Ensure that decisions to buy or repair spare parts are economically sound.

INITIATIVE NO.: RD-008/Completed  SECDEF 10 PTS: #10

ACTION: Pursue the concept of consistent fill rates/Average Days Delay (ADD) among services as a basis for balanced weapon system support funding.

GOAL: To evaluate whether budgeted requirements are achieving required support for spares, and to determine what additional resources are needed to achieve increased levels.
INITIATIVE NO.: RD-009/Outstanding SECDEF 10 PTS: #6

ACTION: Determine the feasibility of competing spares buys for initially competed equipment.

GOAL: To allow ICPs to make competitive buys rather than sole source PIOs/direct procurements for spares buys.

BREAKOUT (B)

INITIATIVE NO.: B-001/Completed SECDEF 10 PTS: #6

ACTION: Implement DAR Supplement 6 and establish Breakout Program at Inventory Control Points and Hardware Systems Commands.

GOAL: To ensure that the Navy implements a viable Breakout Program in order to obtain maximum competition in the acquisition of spare parts.

INITIATIVE NO.: B-002/Completed SECDEF 10 PTS: #6

ACTION: Designate SES as full-time technical advocate for breakout.

GOAL: To provide, within NAVSUP, a high-level position to ensure the successful implementation of a visible Breakout Program.

INITIATIVE NO.: B-003/Completed SECDEF 10 PTS: #6

ACTION: Establish a formal program to challenge proprietary data restrictions on parts for existing systems.

GOAL: To challenge invalid proprietary data claims by contractors. Where necessary, legal action will be pursued to obtain data.

INITIATIVE NO.: B-004/Completed SECDEF 10 PTS: #4

ACTION: Prioritize and fund acquisition of reprocurement technical data in ILS planning process.

GOAL: To ensure that all data required to allow maximum competition during the reprocurement of spares is acquired during the Integrated Logistics Support process.
INITIATIVE NO.: B-005/Completed  SECDEF 10 PTS: #3

ACTION: Establish liaison with upper level corporate managers to sell Navy's competitive/breakout strategy.

GOAL: To involve industry-executives in supporting the Department of Defense increased competition program.

INITIATIVE NO.: B-006/Completed  SECDEF 10 PTS: #4

ACTION: Develop a course on spare parts breakout which is aimed at engineers.

GOAL: To provide engineers with the knowledge necessary to ensure the successful implementation of Navy's Breakout Program.

INITIATIVE NO.: B-007/Completed  SECDEF 10 PTS: #4

ACTION: Develop a policy as to when rights in data can be limited.

GOAL: To ensure that reprocurement data is provided to the government to the maximum extent under the law.

INITIATIVE NO.: B-008/Completed  SECDEF 10 PTS: #4

ACTION: Develop a certification to be included in all solicitations for spare parts requiring contractors to indicate whether they (1) manufacture, (2) buy, (3) assemble, or (4) test the item being sold to the government.

GOAL: Field activities will utilize certification to ensure that the maximum level of competition is attained in the procurement of spare parts.

INITIATIVE NO.: B-009/Completed  SECDEF 10 PTS: #4

ACTION: Develop procedures for ICPs to utilize the information obtained as certifications in B-008 to promote both procurement from OEMs and competition.

GOAL: To make available during the reprocurement process, data relative to known sources of the material.
INITIATIVE NO.: B-010/Outstanding  SECDEF 10 PTS: #4

ACTION: Expand the warranty clause of weapon systems procurement packages to permit the government to charge the contractor the costs incurred for correcting any defective data package.

GOAL: To minimize the cost to the government of having incomplete and inaccurate data.

INITIATIVE NO.: B-011/Outstanding  SECDEF 10 PTS: #4

ACTION: Develop a clause for weapon systems contracts that gives the government the right to forward data packages to an independent (non-government) data review contractor to determine validity of proprietary data restrictions.

GOAL: To ensure that the government obtains rights to all data to which it is entitled.

INITIATIVE NO.: B-012/Completed  SECDEF 10 PTS: #4

ACTION: Ensure acquisition Method Code (AMC) conferences are held to the maximum extent possible and as early as practicable. Breakout benefits in terms of numbers reviewed, codes assigned, estimated annual dollar demand and other pertinent data are to be reported on a monthly basis.

GOAL: To achieve the maximum extent of competition in future reprocurement actions.

INITIATIVE NO.: B-013/Outstanding  SECDEF 10 PTS: #4

ACTION: Propose a change to MIL-D-1000B to restore Category F drawings as a requirement under the MILSPEC.

GOAL: To obtain the maximum amount of technical data during the acquisition process.

INITIATIVE NO.: B-014/Completed  SECDEF 10 PTS: #6

ACTION: Develop a clause for weapon systems contracts whereby contractors are required to identify the cost for the government to acquire unlimited rights to reprocurement technical data, and are required to identify the extent to which they are using standard commercial products.
GOAL: To ensure that the government has the maximum amount of technical data and other information in order to increase the level of competition during the reprocurement of spare parts.

INITIATIVE NO.: B-015/Completed SECDEF 10 PTS: 6

ACTION: Develop a clause for weapon systems contracts requiring contractors to identify the OEM and the OEM part numbers of purchase parts.

GOAL: To increase to the maximum extent, competition in the procurement of spare parts.

INITIATIVE NO.: B-016/Completed SECDEF 10 PTS: 6

ACTION: Provide three technical data packages that are noncompetitive due to proprietary legends--packages to be forwarded to ASN (S&L).

GOAL: To provide ASN (S&L) with examples of the problems encountered in obtaining data rights.

INITIATIVE NO.: B-017/CANCELLED SECDEF 10 PTS: 6

ACTION: Develop and test a procedure to make breakout of spare parts a factor in source selection for major systems. Develop incentive arrangements to reward contractors for cost savings generated by their efforts.

GOAL: To obtain the lowest possible price for spare parts.

INITIATIVE NO.: B-018/Completed SECDEF 10 PTS: 4

ACTION: Develop contract data provisions which, as appropriate, reduce contractors' proprietary rights in data.

GOAL: To increase the amount of technical data available to the government.

INITIATIVE NO.: B-019/Completed SECDEF 10 PTS: 6

ACTION: Establish a management information system to track the success of the conversion from contractor recommended procurement codes to fully competitive procurement status so that the benefits of the program are established versus the cost to administer it.

GOAL: To quantify the benefits of the Breakout Program.
INITIATIVE NO.: B-020/Completed  SECDEF 10 PTS:  #4

**ACTION:** Research contractor licensing arrangement (such as that between Sikorsky and Agusta) of top 20 contractors.

**GOAL:** To identify licensing arrangements which can be utilized for direct procurement from the OEM.

INITIATIVE NO.: B-021/Outstanding  SECDEF 10 PTS:  #6

**ACTION:** Develop a contractual provision permitting deferred ordering of engineering data that required contractor maintenance of engineering data through post production.

**GOAL:** To ensure that current technical data is available from the contractor for reprocurement.

INITIATIVE NO.: B-022/Completed  SECDEF 10 PTS:  #6

**ACTION:** Ensure an increase in, and monitor the number of items that are AMC coded.

**GOAL:** To promote competition.

INITIATIVE NO.: B-023/Outstanding  SECDEF 10 PTS:  #6

**ACTION:** Develop policy document for ICPs/HSCs defining requirement for obtaining technical data and Level II/III drawings for new weapon system acquisitions.

**GOAL:** To provide definitive guidance to ICPs and HSCs relative to obtaining technical data and Level II/III drawings.

INITIATIVE NO.: B-024/Completed  SECDEF 10 PTS:  #6

**ACTION:** Include the acquisition of reprocurement data as part of modification management.

**GOAL:** To ensure that data is acquired on spares for systems requiring modification.

INITIATIVE NO.: B-025/Completed  SECDEF 10 PTS:  #10

**ACTION:** Ensure that all data files related to technical support and procurement of spares contain accurate and up-to-date information.
GOAL: To facilitate competition in the reprocurement of spares.

INITIATIVE NO.: B-026/Completed  SECDEF 10 PTS: #4

ACTION: Establish procedures to request ACOs to provide lists of Navy managed items that contractors purchase complete from subcontractors and to screen these items for purchase breakout to the subcontractor.

GOAL: To expand the possible sources of spare parts.

INITIATIVE NO.: B-027/Completed  SECDEF 10 PTS: #4

ACTION: Periodically request lists of purchase-completed items and maintain records of breakout reviews of these items.

GOAL: To expand competition.

INITIATIVE NO.: B-028/Completed  SECDEF 10 PTS: #4

ACTION: Instruct personnel responsible for technical reviews of item purchases in the need for effective examination of drawings or other data in limited-screening purchase breakout efforts.

GOAL: To ensure that adequate review of technical data is performed.

INITIATIVE NO.: B-029/Completed  SECDEF 10 PTS: #4

ACTION: Develop a supply bailment policy to govern agreements whereby commercial activities can borrow parts of components from the ICPs inventories for the purpose of design replication, development of reprocurement data packages and subsequent offer to supply same.

GOAL: To define NAVSUP bailment policy and issue guidance.

INITIATIVE NO.: B-030/Completed  SECDEF 10 PTS: #4

ACTION: Develop and implement a management plan to evaluate and reduce unnecessary contract specifications and acquisition requirements.
GOAL: To eliminate unnecessary contract specifications and acquisition requirements.

INITIATIVE NO.: B-031/Completed  SECDEF 10 PTS: #10

ACTION: Implement a reverse engineering program to obtain reprocurement technical data packages suitable for competition.

GOAL: To use reverse engineering, when feasible, to develop technical data packages suitable for competition when otherwise sole source procurement is necessary.

INITIATIVE NO.: B-032/Outstanding  SECDEF 10 PTS: #6

ACTION: Define the policy for application of warranties to secondary items, and issue NAVSUPINST on warranty policy.

GOAL: To define NAVSUP warranty and issue guidance.

INITIATIVE NO.: B-033/Completed  SECDEF 10 PTS: #10

ACTION: In the area of repairables, pursue the possibility of expanding ICP use of ship repair contractors who are working for SUPSHIPS and Type Commanders into the ICP repair base.

GOAL: To increase the competitive base and assure fair and reasonable costs are incurred in repair contracts.

INITIATIVE NO.: B-034/Completed  SECDEF 10 PTS: #10

ACTION: Propose changes to MIL-STD 129 to include marking of unit packages with actual manufacturers FSCM and Part Number.

GOAL: To aid in breakout to OEM by requiring identification when a spare part is procured from a manufacturer other than the design activity.

COMPETITION (C)

INITIATIVE NO.: C-001/Completed  SECDEF 10 PTS: #4

ACTION: Establish FY84 competition goals for major field procurement activities.
GOAL: To increase the number of procurements made on a competitive basis.

INITIATIVE NO.: C-002/Completed SECDEF 10 PTS: #1&3

ACTION: Issue FLASH from COMNAVSUP on competition.

GOAL: To make field activities aware of the importance of, and level of attention being given to, efforts to increase competition.

INITIATIVE NO.: C-003/Completed SECDEF 10 PTS: #6

ACTION: Review competitive procurement for Interim Support Item List (ISILs).

GOAL: To provide an explanation of the ISIL concept and explore the pros/cons of competitive procurement for ISILs.

INITIATIVE NO.: C-004/Completed SECDEF 10 PTS: #4

ACTION: Strengthen the process for inspection and acceptance of technical data by cognizant engineers/technicians. Require engineers/technicians to validate with recognizable annotation that they were reviewed for adequacy and completeness.

GOAL: To ensure that the advantages of competition are fully exploited by having adequate technical information available.

INITIATIVE NO.: C-005/Completed SECDEF 10 PTS: #4

ACTION: Publish a system listing of sole source items broken out to competition for use by all field contracting activities.

GOAL: To provide field contracting activities with the information to increase the level of competitive procurements.

INITIATIVE NO.: C-006/Completed SECDEF 10 PTS: #1

ACTION: Provide guidance to field activities on incorporation of competition/pricing goals into Merit Pay System (MPS) objectives and the Basic Performance Appraisal Program (BPAP).
GOAL: To bring the importance of the competition/spares pricing to the individual employee level.

INITIATIVE NO.: C-007/Completed SECDEF 10 PTS: #4

ACTION: Appoint Competition Advocates at all activities with $25,000 authority and establish a "Competition Advocate of the Quarter" award program.

GOAL: To establish a focal point for all efforts related to increasing competition and improving spares pricing, and to officially recognize those individuals who have made a significant contribution to those efforts.

INITIATIVE NO.: C-008/Completed SECDEF 10 PTS: #4

ACTION: Conduct test of adding applicable MILSPEC/MILSTD numbers and method of fabrication information to Commerce Business Daily announcements.

GOAL: To increase to number of potential sources for procuring spare parts.

INITIATIVE NO.: C-009/Completed SECDEF 10 PTS:

ACTION: Develop in-house operating procedures whereby the Competition Advocate is informed of all unsolicited proposals for sole source items so that identified source of supply is considered on future procurement.

GOAL: To expand the possible sources from which to procure spare parts.

INITIATIVE NO.: C-010/Completed SECDEF 10 PTS: #1

ACTION: Revise position descriptions and establish new critical elements and performance standards to motivate employees to reduce costs and increase competition.

GOAL: To bring the importance of competition/spares to the individual employee level.

INITIATIVE NO.: C-011/Completed SECDEF 10 PTS: #8

ACTION: Develop and promulgate uniform guidance for approval of alternate manufacturing sources for items with restrictive acquisition method codes.

GOAL: To identify additional manufacturing sources.
INITIATIVE NO.: C-012/Completed SECDEF 10 PTS: #4

ACTION: Initiate action to improve the response time in which Navy Engineering support Activities (ESAs) respond to requests for technical data from DLA Inventory Control Points.

GOAL: To ensure that the ICP managing the item has sufficient information to promote competition and to procure the correct item.

INITIATIVE NO.: C-013/Completed SECDEF 10 PTS: #3

ACTION: Develop and implement procedures to review Acquisition Plans (AOS) and business clearances for an adequate "Spare Parts Annex" section.

GOAL: To assess the adequacy of provisions for acquiring technical documentation for spares competition/breakout.

INITIATIVE NO.: C-014/Completed SECDEF 10 PTS: #8

ACTION: COMNAVSUP meet with major Navy suppliers to address spares pricing and cost issues.

GOAL: To interface with industry in the area of increasing competition and fair pricing.

INITIATIVE NO.: C-015/Completed SECDEF 10 PTS: #3&6

ACTION: ICPs prepare a Command Competition Advocate Pamphlet that includes a section on availability of projected buy requirements listing. Pamphlet to be included with local publications on how to do business with the ICP, "Selling to the Military", and for pick-up.

GOAL: Advertise availability of projected buy listings to support generating second sources and competition.

INITIATIVE NO.: C-016/Cancelled SECDEF 10 PTS: #8

ACTION: Define and establish "Model Business Relationships" with major weapons systems manufacturing which we are dependent on for nonstandard/standard repair parts.

GOAL: To establish better relationships with companies such as Grumman.
INITIATIVE NO.: C-017/Completed  SECDEF 10 PTS: #8

ACTION: To develop a publication and distribute a competition hit list similar to what DLA has.

GOAL: Catalog of pictured items with only one supplier.

METHOD OF PROCUREMENT (MP)

INITIATIVE NO.: MP-001/Completed  SECDEF 10 PTS: #6

ACTION: Continue action under the Spare Acquisition Integrated with Production (SAIP) and Timely Spares Provisioning (TSP) programs.

GOAL: To reduce the overall cost of procuring spare parts.

INITIATIVE NO.: MP-002/Completed  SECDEF 10 PTS: #6

ACTION: Exploit combined purchased for Navy/Foreign Military Sales (FMS) customers.

GOAL: To reduce the cost of producing spare parts.

INITIATIVE NO.: MP-003/Completed  SECDEF 10 PTS: #6

ACTION: Centralize procurement of fleet unit non-standard CASREP requisitions at SPCC.

GOAL: To reduce the overall cost of procuring these spare parts and to provide more responsive service to fleet customers.

INITIATIVE NO.: MP-004/Completed  SECDEF 10 PTS: #6

ACTION: Review the use of unpriced orders with the goal of reducing the total number issued; assure that 98 percent of unpriced orders are definitized within six months of issue and 100 percent definitized within 12 months.

GOAL: To reduce the ultimate cost of spare parts.
INITIATIVE NO.: MP-005/Completed  SECDEF 10 PTS: #6

ACTION: Expand use of multi-year contracts for spares.

GOAL: To reduce the overall cost of spare parts.

INITIATIVE NO.: MP-006/Completed  SECDEF 10 PTS: #6

ACTION: Develop and establish automated bidders mailing lists at procurement activities.

GOAL: To facilitate increased competition for spare parts.

PRICING(P)

INITIATIVE NO.: P-001/Completed  SECDEF 10 PTS: #6

ACTION: Send message to DLA requesting review of pricing techniques.

GOAL: To ensure that the lowest possible prices are being paid for spare parts.

INITIATIVE NO.: P-002/Completed  SECDEF 10 PTS: #9

ACTION: Send message to DCAA requesting operational audit of Gould and determination if other contractors have pricing techniques similar to Gould's.

GOAL: To ensure that the government is paying the lowest reasonable price for an item.

INITIATIVE NO.: P-003/Completed  SECDEF 10 PTS: #6

ACTION: Phase out redeterminable Basic Ordering Agreements.

GOAL: To ensure that the Navy obtains the best possible price for an item at the time it is ordered.

INITIATIVE NO.: P-004/Completed  SECDEF 10 PTS: #4

ACTION: Assign personnel to do value engineering review of spare parts purchased.

GOAL: To increase the level of value engineering performed at Navy contracting activities.
INITIATIVE NO.: P-005/Completed  SECDEF 10 PTS: $6

ACTION: Review Navy policy on reliance on DCAS to negotiate prices and prepare a point paper summarizing results of review and recommending policy changes as required.

GOAL: To assess the need for policy change.

INITIATIVE NO.: P-006/Completed  SECDEF 10 PTS: $6

ACTION: Publish Field Contracting Alert concerning allocation of overhead to spare parts.

GOAL: To advise field contracting activities to monitor contractors' method of overhead allocation to spare parts.

INITIATIVE NO.: P-007/Completed  SECDEF 10 PTS: $10

ACTION: Request the Naval Postgraduate School, Monterey to prepare an analysis of Navy cost to procure material.

GOAL: To ascertain the cost to procure material, including cost for stock point to receive and issue. Cost computed will be available for use in other analyses concerning overall spares acquisition process.

INITIATIVE NO.: P-008/Completed  SECDEF 10 PTS: $4

ACTION: Analyze prices of NSN material bought locally by a stock point and develop lessons learned.

GOAL: To assess the impact relative to spare parts prices of locally procured spares.

INITIATIVE NO.: P-009/Continuing  SECDEF 10 PTS: $6

ACTION: Establish more realistic initial estimated prices for spare parts and consolidate initial buy quantities of provisioned items.

GOAL: To minimize the impact of inaccurate prices on the material budgeting process and to ensure economies are realized during the initial buy process.
INITIATIVE NO.:  P-010/Completed  SECDEF 10 PTS:  #10

**ACTION:** Provide buyers with visibility of all interchangeable part numbers within a given family group.

**GOAL:** To identify possible substitute items and to identify less costly items.

INITIATIVE NO.:  P-011/Completed  SECDEF 10 PTS:  #4

**ACTION:** Identify and attack instances where Navy is paying interdivisional mark-up on spares.

**GOAL:** To reduce the cost of spare parts.

INITIATIVE NO.:  P-012/Completed  SECDEF 10 PTS:  #6

**ACTION:** Provide policy guidance to NFCS activities to ensure that the government is charged nor more than a vendor would charge its best customer.

**GOAL:** To achieve the best possible fair price.

INITIATIVE NO.:  P-013/Completed  SECDEF 10 PTS:  #10

**ACTION:** Increase awareness of Price Fighter mission.

**GOAL:** To have all contracting personnel, as well as end users, aware of the Navy Price Fighters mission, and informed of cost cutting tips learned by the Price Fighter Group.

INITIATIVE NO.:  P-014/Completed  SECDEF 10 PTS:  #6

**ACTION:** Conduct test of Price Fighter data available to buyers on 6-10 cases selected by the ICPs.

**GOAL:** Determine how Price Fighter data can benefit buyers.

**PRICE SURVEILLANCE (PS)**

INITIATIVE NO.:  PS-001/Completed  SECDEF 10 PTS:  #1-10

**ACTION:** Prepare ALNAV covering pricing/competition.

**GOAL:** To establish CNO policy in support of SECDEF's TEN POINT PLAN.
INITIATIVE NO.: PS-002/Completed  SECDEF 10 PTS:  5
ACTION:  In conjunction with the implementation of the stock funding of Aviation Depot Level Repairables (AVDLRs), sensitize Navy users regarding the reasonableness of spare parts prices.
GOAL:  To avoid paying exorbitant prices for Navy requirements.

INITIATIVE NO.: PS-003/Completed  SECDEF 10 PTS:  3
ACTION:  Mount proactive media coverage of positive actions taken on pricing/competition front.
GOAL:  To keep the public informed of actions taken to improve spare parts pricing.

INITIATIVE NO.: PS-004/Completed  SECDEF 10 PTS:  1
ACTION:  Recognize military and civilian employees who achieve significant price reductions.
GOAL:  Through recognition of these employees, the importance of improved spares pricing will be brought to the attention of all personnel.

INITIATIVE NO.: PS-005/Completed  SECDEF 10 PTS:  6
ACTION:  Develop NAVSUP capability to do value analysis (should cost analysis) of material. "PRICE FIGHTER"
GOAL:  To identify items which are overpriced.

INITIATIVE NO.: PS-006/Completed  SECDEF 10 PTS:  5
ACTION:  Establish a formal program to conduct in-depth reviews of "out of tolerance" prices.
GOAL:  To identify unwarranted increase in spare parts prices.

INITIATIVE NO.: PS-007/Completed  SECDEF 10 PTS:  5
ACTION:  Establish new Price Analysis filters in the UICP program GO2.
GOAL:  To ascertain the best parameter(s) for the program.
INITIATIVE NO.: PS-008/Completed  SECDEF 10 PTS: #5

ACTION: Direct field activities to identify cases to cognizant engineering activities where intrinsic value is not consistent with established price.

GOAL: To provide a mechanism whereby personnel in the field can identify questionable spare parts prices which should be investigated.

INITIATIVE NO.: PS-009/Completed  SECDEF 10 PTS: #6

ACTION: Establish system to monitor Contract Administer Office (CAO) pricing of BOA orders originating by the ICPs.

GOAL: To identify pricing and response time difficulties created by CAOs.

INITIATIVE NO.: PS-010/CANCELLED  SECDEF 10 PTS: #10

ACTION: Issue quarterly report cards to Administrative Contracting Offices (CAOs) DCAS and DLA HQ on timeliness of pricing actions.

GOAL: To advise DCAS and DLA HQ of their performance so that action may be taken to improve performance where warranted.

INITIATIVE NO.: PS-011/Completed  SECDEF 10 PTS: #6

ACTION: Perform price comparison test of items priced prospectively versus after award and report results.

GOAL: To ascertain impact of pricing techniques on final price of item.

INITIATIVE NO.: PS-012/Completed  SECDEF 10 PTS: #10

ACTION: Conduct random sample of 125 items to determine if prices paid increased or decreased.

GOAL: To ascertain recent trends in the prices of spare parts.
INITIATIVE NO.: PS-013/Completed  SECDEF 10 PTS: $10

ACTION: Conduct an analysis of 30 items on draft audit report 3AP-021 for which prices increased by 100 percent or more.

GOAL: To assess validity of prices.

INITIATIVE NO.: PS-014/Completed  SECDEF 10 PTS: $4

ACTION: Develop a program which will compare and display the prices paid for locally purchased stock numbered (AAC "L") items reported by NFCS activities.

GOAL: To provide item managers and field contracting personnel with a tool for determining the lowest price available.

INITIATIVE NO.: PS-015/Completed  SECDEF 10 PTS: $4

ACTION: Receive, review and reply to reports of excessive pricing received from Navy customers.

GOAL: To challenge DLA and/or other Services' excessive price increases.

INITIATIVE NO.: PS-016/Completed  SECDEF 10 PTS: $1

ACTION: Review, and refine if necessary, NACSUP's employee recognition program.

GOAL: In view of emphasis being placed on spare parts procurement and in support of initiative PS-004, the NACSUP employee recognition program must be adequately implemented.

INITIATIVE NO.: PS-017/Completed  SECDEF 10 PTS: $6

ACTION: Develop criteria for evaluating the PRICE FIGHTER program to include appropriate cost benefit analyses and alternatives for expanding capabilities.

GOAL: To objectively evaluate the results of the pilot PRICE FIGHTER team.
INITIATIVE NO.: PS-018/Completed  SECDEF 10 PTS:  $5

ACTION: Develop and promulgate to the NFCS a checklist of the minimum requirements for documentation of price reasonableness.

GOAL: To provide guidance to the field to assist them in pricing.

INITIATIVE NO.: PS-019/Completed  SECDEF 10 PTS:  $10

ACTION: Determine if FPI/NIB prices should be challenged through formal procedures when the item can be bought from a commercial source at a lower price.

GOAL: To assure fair and reasonable prices are paid for all items.

INITIATIVE NO.: PS-020/Completed  SECDEF 10 PTS:  $10

ACTION: Conduct three month pilot test hotline providing real time "should cost" estimates within a responsible timeframe for live buys at the following activities: NSC Norfolk, NAS Norfolk, NAS Oceana. Assess the value of Price Fighter interface with buying activities and provide recommendations for permanent program.

GOAL: To provide buyers with should cost analyses to assist in negotiating fair and reasonable prices.

CONTRACT MANAGEMENT (CM)

INITIATIVE NO.: CM-001/Completed  SECDEF 10 PTS:  $7

ACTION: Perform in-depth review of Naval Training and Equipment Center (NTEC) contracts.

GOAL: To recommend corrective action to NTEC contracting procedures.

INITIATIVE NO.: CM-002/Completed  SECDEF 10 PTS:  $9

ACTION: Reduce NTEC contracting authority; provide detailed guidance to NTEC/NSC Charleston on transfer of contracting authority.
**GOAL:** To suspend the awarding of contracts over $500K pending resolution of NTEC contract procedure problems.

**INITIATIVE NO.: CM-003/Completed**  
SECDEF 10 PTS: #9

**ACTION:** Elevate pricing and competition to special interest items on Contract Management Reviews. (CMRs).

**GOAL:** To ensure that pricing and competition areas are given particular attention during CMRs.

**INITIATIVE NO.: CM-004/Completed**  
SECDEF 10 PTS: #7&8

**ACTION:** Accept refunds from contractors who have overcharged. Recommend suspension/debarment of vendors defrauding the government.

**GOAL:** To solicit refunds where deemed appropriate, and to penalize vendors when such action is considered necessary.

**INITIATIVE NO.: CM-005/Completed**  
SECDEF 10 PTS: #6

**ACTION:** All contracts for spare parts and repair kits of $25,000 or more for other than standard commercial parts will contain a value engineering incentive clause.

**GOAL:** To comply with DOD Directive 5010.8.

**INITIATIVE NO.: CM-006/Completed**  
SECDEF 10 PTS: #2

**ACTION:** Ensure all Naval Reserve Officers assigned to Navy field Contracting System activities are briefed on standards of conduct, particularly in regard to conflict of interest.

**GOAL:** To preclude any impropriety or the appearance of impropriety which may result from Reservists performing functions within the contracting organization.

**INITIATIVE NO.: CM-007/Outstanding**  
SECDEF 10 PTS: #6

**ACTION:** Initiate change to the existing Cost Accounting Standards (CAS) which allow contractors to allocate overhead/G&A burdens to spares orders which in many instances are substantially disproportionate to the value which the contractor has added.

**GOAL:** To assure fair and reasonable prices are paid for all items.
TRAINING (T)

INITIATIVE NO.: T-001/Completed       SECDEF 10 PTS: #9

ACTION: Arrange for the Naval Investigative Service (NIS) to train CMR teams, including ICP internal review teams, in fraud detection techniques.

GOAL: To ensure that contracting personnel are aware of ways in which to detect contractor fraudulent practices.

INITIATIVE NO.: T-002/Completed       SECDEF 10 PTS: #10

ACTION: Review training/qualification criteria for promotion in 1102/1105 series and develop new criteria as required.

GOAL: The emphasis being placed on improving competition and spares pricing dictates that all procurement personnel be fully qualified before assuming more responsible positions.

INITIATIVE NO.: T-003/Completed       SECDEF 10 PTS: #10

ACTION: Mandate semi-annual cost/price analysis courses to be held on-site at ICPs.

GOAL: To ensure that contracting personnel are aware of most recent cost/price analysis techniques.

INITIATIVE NO.: T-004/Completed       SECDEF 10 PTS: #10

ACTION: Require 1102 personnel to take refresher cost/price analysis course every three years.

GOAL: To keep the personnel in the 1102 series current with cost/price techniques.

INITIATIVE NO.: T-005/Completed       SECDEF 10 PTS: #10

ACTION: Review requirements for issuing warrants to Contracting Officers.

GOAL: To ensure that only those fully qualified individuals be issued warrants.
AUTOMATED SYSTEMS (AS)

INITIATIVE NO.: AS-001/Outstanding  SECDEF 10 PTS: #6

ACTION: Increase automation of procurement process.

GOAL: To increase the ability of the NAVSUP field contracting activities to manage the procurement process through automation.

INITIATIVE NO.: AS-002/Outstanding  SECDEF 10 PTS: #6

ACTION: Conduct a review of technical data access procedures utilized by the ICPs.

GOAL: Develop recommendation for improving the processes.

INITIATIVE NO.: AS-003/Completed  SECDEF 10 PTS: #6

ACTION: Develop an automated system which will provide buyer with on-line access to information such as MILSPECs, price history and pictorial presentations to assist in the declericalization of procurement.

GOAL: To reduce the clerical approach involved in procurement and to provide buyers with required information.

INITIATIVE NO.: AS-004/Outstanding  SECDEF 10 PTS: #6

ACTION: Implement Navy Print On Demand System (NPODS) at the Naval Publications and Forms Center (NPFC).

GOAL: NPODS will enable NPFC to provide potential contractors with applicable specifications and standards more responsively and at less cost than at present.

INITIATIVE NO.: AS-005/Outstanding  SECDEF 10 PTS: #6

ACTION: Convert data repository technical files supporting ICP reprocurement to an electronic form.

GOAL: To provide buyers and item managers with technical data in a more timely manner.
INITIATIVE NO.: AS-006/Completed  SECDEF 10 PTS:  $6

ACTION: Implement Military Standard Contract Administration Procedures (MILSCAP) at Navy activities.

GOAL: To enhance the Navy's efforts to improve the spare parts acquisition process and to facilitate the transmission and use of data between and among DOD components.

RESOURCES (R)

INITIATIVE NO.: R-001/Completed  SECDEF 10 PTS:  $10

ACTION: Increase resources (funds/end strength) to enhance competition and pricing at NAVSUP procurement activities.

GOAL: To enable NAVSUP activities to buy spares more effectively.

INITIATIVE NO.: R-002/Completed  SECDEF 10 PTS:  $10

ACTION: Provide additional resources to ASO/SPCC and Hardware Systems Commands to increase breakout efforts.

GOAL: To enable the ICPs to achieve high levels of competition in spares procurement.

INITIATIVE NO.: R-003/Completed  SECDEF 10 PTS:  $10

ACTION: Increase FY84/85 funding to accelerate the implementation of the Automated Procurement and Data Entry System (APADE) at NSCs and NRCCs.

GOAL: To declericalize the procurement process at field activities.

INITIATIVE NO.: R-004/Completed  SECDEF 10 PTS:  $10

ACTION: Obtain FY84/85 R&D funds to automate data repositories at NAVSUP activities; i.e., NPODS at NPFC.

GOAL: To reduce the manual workload associated with data retrieval.
INITIATIVE NO.: R-005/Completed  SECDEF 10 PTS:  $10

**ACTION:** Provide funds and end strength to staff a "PRICE FIGHTER" value analysis team.

**GOAL:** To develop an intrinsic value analysis capability.

INITIATIVE NO.: R-006/Completed  SECDEF 10 PTS:  $10

**ACTION:** Provide resources to increase Value Engineering efforts.

**GOAL:** To improve Value Engineering programs at Navy ICPs.

INITIATIVE NO.: R-007/Completed  SECDEF 10 PTS:  $10

**ACTION:** Provide funds for increased training of procurement personnel.

**GOAL:** To upgrade the expertise in spares acquisitions.

INITIATIVE NO.: R-008/Completed  SECDEF 10 PTS:  $10

**ACTION:** Review staffing of procurement functions at non-NAVSUP field contracting activities.

**GOAL:** Identify shortfalls where they exist and pursue additional resources where required.

INITIATIVE NO.: R-009/Completed  SECDEF 10 PTS:  $10

**ACTION:** Develop and implement a system to identify and track the cost of, and savings attributed to the major Project BOSS programs such as Breakout, challenges to proprietary legends, etc.

**GOAL:** To be able to document actual costs and savings of Project BOSS.
APPENDIX C

SELECTED AUDITS

The following is a list of the audits reviewed:

   Date completed: 30 January 1985
   Audit agency/number: Naval Audit Service T30113

2. DOD Making Progress In Identifying and Marketing Obsolete Repair Parts.
   Date completed: 21 February 1985
   Audit agency/number: GAO/NSIAD 85-47

   Date completed: 21 March 1985
   Audit agency/number: DOD 85-081

4. Actions taken by DOD on GAO recommendations to Improve Spare Parts Requirement Determinations.
   Date completed: 30 April 1985
   Audit agency/number: GAO/NSIAD 85-61

   Date completed: 8 July 1985
   Audit agency/number: GAO/NSIAD 85-112

6. Contracting Officers' Explanation for Price Increases on 125 Spare Parts.
   Date completed: 29 July 1985
   Audit agency/number: GAO/NSIAD 85-119
7. Multilocation DOD-wide Follow-up Audit of Spare Parts Procurement.
   Date completed: 19 November 1985
   Audit agency/number: Naval Audit Service T48185

   Date completed: 26 December 1985
   Audit agency/number: DOD 86-050

9. Spare Parts Pricing Inappropriate Use of Rate Agreements.
   Date completed: 13 January 1986
   Audit agency/number: GAO/NSIAD 86-18

10. Procurement: Department of Defense Initiatives to Improve the Acquisition of Spare Parts.
    Date completed: 11 March 1986
    Audit agency/number: GAO/NSIAD

    Date completed: 2 June 1986
    Audit agency/number: DOD 86-098

12. Follow-up Audit: Procurement of Spare Parts.
    Date completed: 5 June 1986
    Audit agency/number: Naval Audit Service T28165

13. Procurement: Limited Data on DOD's Parts Breakout Program.
    Date completed: 10 October 1986
    Audit agency/number: GAO/NSIAD 78-16BR

Date completed: 1 June 1987
Audit agency/number: GAO/NSIAD 87-143


Dated completed: 1 June 1987
Audit agency/number: GAO/NSIAD 87-149


Date completed: 20 August 1987
Audit agency: DOD 87-225

17. Audit of Minimum Economic Order Quantities.

Date completed: 6 March 1987
Audit agency/number: DOD 6SL-023

18. Audit of Vendor Technical Qualifications for Aircraft Engine Spare Parts Procured by the Navy ASO.

Date completed: 10 August 1987
Audit agency/number: 7AP-802

19. Audit of the Procurement of Crashworthy Crewseats for Helicopters.

Date completed: 21 September 1987
Audit agency/number: DOD 6AP-810

20. Audit of Honeywell Catalog Pricing.

Date completed: 15 October 1987
Audit agency/number: 5CA-510
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<td>Dr. Paul M. Carrick, Code 54Ca</td>
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10. LT Ronald D. Christian, SC, USNR
Supply Office, Code 60
Selfridge ANG
Mt. Clemens, Michigan 48045-5008