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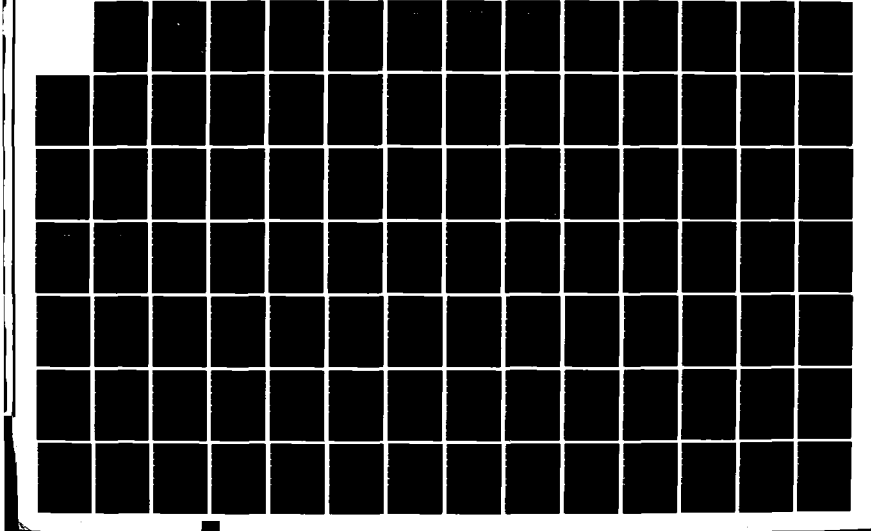

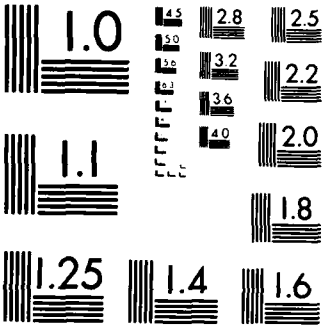

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STUDENT REPORT

STATUS REPORTING ON
WEAPON SYSTEM ACQUISITION PROGRAMS

MAJOR SHERRY D. SIMS 85-2440

"insights into tomorrow"

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REPORT NUMBER 85-2440

TITLE STATUS REPORTING ON WEAPON SYSTEM ACQUISITION PROGRAMS

AUTHOR(S) MAJOR SHERRY D. SIMS, USAF

FACULTY ADVISOR LT COL MICHAEL E. THORN, HQ AFSC/ACX

SPONSOR COLONEL CHARLES ACKERMAN, HQ USAF/RDX

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This paper examines the impact of recent changes to status reporting on weapon system acquisition programs. The changes include increasing the number of programs required to submit Selected Acquisition Reports and implementing unit cost reporting and the Defense Acquisition Executive Summary. It concludes that the changes corrected the perceived deficiencies which prompted the changes in the first place, but that, in so doing, they increased the volume and complexity of the information required. The paper then identifies some ways to improve the process.

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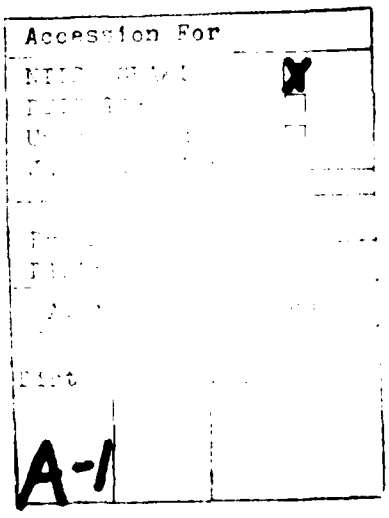
PREFACE

This report presents the results of a study undertaken to examine status reporting on weapon system acquisition programs. My purpose for writing the report, however, goes beyond presenting the results of a study. One of the things which makes this area so interesting is the diversity of the players. Their functional backgrounds span both the acquisition and resource allocation communities; their levels of responsibility run from Congress down to the company grade officers (frequently lieutenants) who prepare the reports. This diversity, while interesting, contributes to much of the confusion surrounding the status reporting process. My broader purpose is to reduce this confusion by presenting the total process from a spectrum of perspectives. I know of no other document which does this.

I am indebted to a number of people for their assistance in this project. Lt Col Mike Thorn and his staff provided timely information on changes to the process--no easy task given the speed with which revisions are being made. More importantly, Lt Col Thorn's review and advice have added considerable value to the report. Likewise, the report has benefited greatly from the extensive experience of Capt Bob Magee. Finally, I am deeply grateful to Lt Col Jim Macey of the Air Command and Staff College staff for his guidance, extensive reviews, and encouragement. He went well beyond what is expected of an administrative advisor. I believe that the report is worthwhile because of its recommendations and its educational value. I know that this would not be true were it not for the invaluable contributions made by these people.



ABOUT THE AUTHOR

Major (Lt Col Selectee) Sherry D. Sims graduated from Carson-Newman College in 1967 with a Bachelor of Science degree in mathematics and physics. She spent the next four years working in industry--first as a mathematician and then as a computer analyst. The highlight of this period was her work on the Apollo program at the Manned Spacecraft Center in Houston TX. Major Sims received her commission in 1971 through Officer Training School and was assigned to the Foreign Technology Division as a computer analyst. After completing Squadron Officer School in 1973, she went to the Directorate of Data Automation at Headquarters, Air Force Systems Command (HQ AFSC). She spent her last two years at HQ AFSC working as a cost analyst. From there, Major Sims went to work as a budget analyst in the Directorate of Budget at the Air Staff in 1977. After three years on the Air Staff, she went to the Rand Corporation as a research fellow and then to the Ballistic Missile Office where she ran the Programs Division in the Directorate of Program Control.

Major Sims is one of the few people in the Air Force who has experience in so many different aspects of status reporting on weapon system acquisition programs. While at HQ AFSC, she participated in the Selected Acquisition Report review process; at the Air Staff, she was a user. The Programs Division at the Ballistic Missile Office prepared all of the status reports for the Peacekeeper missile--including the new ones implemented since 1982. She has discussed status reporting with members of the Congressional Budget Office and Office of the Secretary of Defense (Comptroller) staffs. Major Sims not only has "hands on" experience in almost every phase of the status reporting process, she has worked in all of the functional disciplines which participate.

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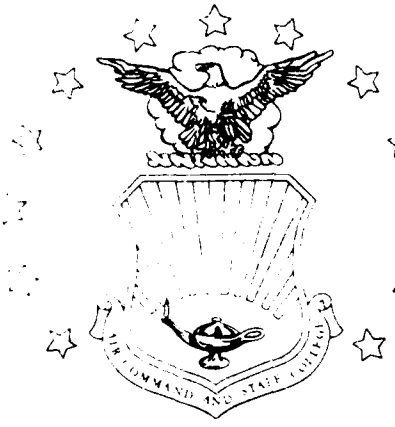

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REPORT NUMBER 85-2440

AUTHOR(S) MAJOR SHERRY D. SIMS, USAF

TITLE STATUS REPORTING ON WEAPON SYSTEM ACQUISITION PROGRAMS

I. Background: Status reporting on weapon system acquisition programs has changed extensively since 1982. Prior to that time, the Selected Acquisition Report was the only formal reporting mechanism to Congress on how well these programs were progressing. Since then, Congress has legislated unit cost reporting, and OSD has instituted the Defense Acquisition Executive Summary. Both initiatives were taken to redress perceived deficiencies in the existing status reporting process--but at a price.

II. Problem: All of the changes were additive. Collectively, they increased both the volume and the complexity of the information which is now reported.

III. Objective: The study examined today's status reporting process in terms of the "demand" function (What questions should the information answer? What were the changes supposed to do?) and the "supply" function (How efficiently is the information provided?). Its purpose was to identify opportunities for improving the process.

IV. Conclusions: The changes made to the process since 1982 corrected the deficiencies which were identified at that time. They did nothing, however, to improve the efficiency. The report proposes changes to the process designed to improve the quality of the information as well as the efficiency with which it is provided.

Chapter 1

INTRODUCTION

Reporting on the status of major weapon system acquisition programs is not new nor is status reporting a phenomenon of the Federal Government. Theorists (and practitioners, for that matter) consider management control systems to be essential to effective management in any organization. These systems are typically designed to measure how closely the actual outcome of decisions match the intended outcome, influence the behavior of organizational entities (including individuals), and provide information to a continuing planning process. (1:2) Initial status reporting in the acquisition arena was intended to serve these purposes. The general consensus by the end of the 1970s, however, was that status reporting on weapon system acquisition programs was ineffective and, further, that this was a contributing factor to cost growth in these programs. (8:6) This assessment, not surprisingly, led to fundamental changes in the status reporting process.

The process which emerged (or, more precisely, is emerging) included changes along three dimensions and reflected initiatives by two sets of players--Congress and the Office of the Secretary of Defense (OSD). First, both Congress and OSD expanded the amount of information which must be reported on each major weapon system acquisition program. The basic status report prior to the changes was the Selected Acquisition Report (SAR) to Congress. Additionally, OSD received a report on contractor performance, the Supplemental Contractor Cost Report, for selected major programs. The Nunn/McCurdy Amendment to the 1983 Defense Authorization Act (Public Law 97-252) established the requirement for unit cost reporting in addition to the Selected Acquisition Report. OSD, meanwhile, implemented a new report designed to provide the information they perceived to be missing from the status reporting process. The second dimension which changed was the number of programs required to report. Because of the new criteria included in Public Law 97-252, the number of programs required to submit Selected Acquisition Reports increased from 47 (1981) to 96 (1983). (5:1; 6:2) An estimated 135 weapon system acquisition programs met the reporting criteria at the end of 1984. (6:2) Finally, Congress changed the status reporting process itself. Unit cost reporting on major programs is, by law, specifically intended for the Service Secretaries. (9:559) Unit Cost Exception Reports (UCERs) are submitted to Congress only if cost growth exceeds a specified threshold. Attempts to fix the weapon system acquisition status reporting process, then, have almost tripled the number of programs which are required to participate. Additionally, they have dramatically increased the amount of information provided on each program and introduced the notion of exception reporting. The questions which remain are have they worked, at what price, and are further changes in order.

The balance of this report addresses these questions. A useful answer to the first question is possible if it is limited to assessing how well the information which is now required fills the voids identified during the deliberations leading up to making the changes. A comprehensive answer, however, is beyond the scope of this report and probably will not be available for several years for two reasons. First, given that one of the purposes of the changes was to help control cost growth (8:16), just over one year's experience does not provide enough data to measure how well that objective is being met. Second, it is doubtful that anyone can isolate the impact of this initiative from the impact of numerous other initiatives undertaken to do the same thing over the past three years. The second question, that of "price," is also complicated. At the most superficial level, the changes--all additive--increased the workload at all organizational levels. This justified looking for ways to make the process more *efficient*. There are, however, other, more subtle, issues in the "price" question. One such issue is the potential for "micro-management" at higher organizational levels which results from more detailed information being provided. The underlying concern here is with the impact of micro-management on effective program management. Yet another issue is the impact of the revisions on overall complexity. Status reporting was already complex; the changes made it more so. This has important implications for the quality of the information which flows through the process. Issues such as these prompted looking for ways to make the process more *effective*. The final question, that of determining what changes should be made to the process, is, in fact, the reason this study was undertaken.

The basic approach to identifying opportunities for improving the process was to examine it from two perspectives--that of the users and that of the providers. In the case of the users, the emphasis was on assessing how well the information included in the reports answers the questions which prompted the reports in the first place. The providers' side of the assessment concentrated on the process itself with particular attention on efficiency. The ensuing discussion presents the results of the study beginning with a description of the process designed to provide the necessary background information and delineate the specific issues. The report then presents a theoretical framework for assessing management and control systems in general and concludes with proposed changes to the status reporting process as it exists today.

Chapter 2

MAJOR WEAPON SYSTEM ACQUISITION PROGRAM STATUS REPORTING PART I

The status reporting process which exists today began in 1967 when the Selected Acquisition Report first appeared as an internal Department of Defense management report. Two years later the Selected Acquisition Report became the primary means of providing Congress with information on how well program managers execute their assigned programs. (7:989) Since then, the Selected Acquisition Report "has been a continuing source of controversy and confusion. It was recently described on the Senate floor as 'a report, much of which is classified, almost all of which is unintelligible.'" (7:979) This 1982 statement by a member of the OSD Comptroller's staff reflected the assessment of status reporting that lead to passage of the Nunn-McCurdy Amendment. Interestingly, the Nunn-McCurdy Amendment did not replace Selected Acquisition Reports, but rather, increased the number of programs now required to submit them. In the final analysis, Congress defined the problem to be something other than the content and structure of a single report. This chapter focuses on the Selected Acquisition Report because it *was* the status reporting system prior to passage of the Nunn-McCurdy Amendment. The discussion first describes the report itself and then presents the process by which it reaches Congress. It concludes by identifying the major weaknesses in status reporting the Amendment was intended to redress. Chapter 3 examines the status reports which have been added since 1982. Changes made to the Selected Acquisition Report since then are reflected in this chapter's descriptions.

THE REPORT

> Thayer, appearing before the Senate Governmental Affairs Committee Wednesday [March 1983], met criticism from Senators who said the Selected Acquisition Reports were "impossible to read," "confusing," required a degree in accounting to understand, and were "inadvertently misleading." (3:150)

Just what is a Selected Acquisition Report? The answer is "it depends." If you are a researcher, it is one of the few standardized sources of information on weapon system acquisition programs which spans a period of time long enough to be useful. (7:1080) If you are a Congressman who considers your role to be that of a corporate board member making overall decisions, it is a source of information on the impact of those decisions as well as potential management problems which might be the subject of future decisions. (7:1080) If you work in the Pentagon hierarchy, it is a way to show the programmatic

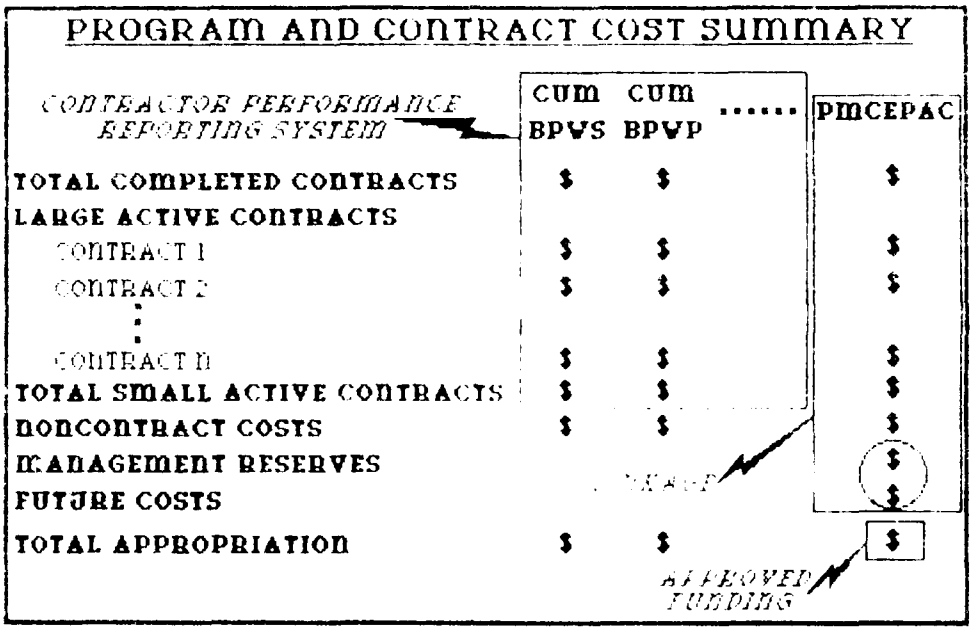

Figure 3.5

only the six largest contracts are reported in the Selected Acquisition and Unit Cost Reports. All active contracts whose target prices are greater than $20 million are reported separately in the Defense Acquisition Executive Summary. The total for all categories must equal the appropriation total in the Selected Acquisition Report which, in turn, must equal the program's latest approved funding. Thus, the Defense Acquisition Executive Summary, with this format, establishes the link from contractor performance information through the program manager's estimates of what each contract will cost when completed to the program's most recently approved funding level. It turns out that the information in this format is also directly related to the contract cost baselines in unit cost reporting (Figure 3.6).

In reality, Figure 3.6 is a "model" of how the Ballistic Missile Office (BMO) linked the Peacekeeper status reports. The Peacekeeper Defense Acquisition Executive Summary represents a "worst case" situation because of the BMO's approach to acquiring weapon systems. Most programs use a prime contractor to integrate the work done by numerous subcontractors. The BMO integrates the work of 17 associate contractors and thus has significantly more contracts in the "large active" category than most program offices would. The BMO's acquisition approach is reflected in the organization's internal management systems. For example, an automated system was already in place which tracked projects from future effort through authorized (not negotiated) to "on contract" status for all active Peacekeeper contracts. Establishing and monitoring contract cost baselines was thus a matter of capturing existing information. Specific procedures may vary among other program offices because of differences in internal management systems; however, the

Selected Acquisition Report, coupled with unit cost reporting, could have provided the same information as the Defense Acquisition Executive Summary with two notable exceptions. The first is the Supplemental Contract Cost Information (Format 3) in the Defense Acquisition Executive Summary. This display, however, replaced a quarterly report which already existed. The second exception is the one innovative feature of the Defense Acquisition Executive Summary--the Program and Contract Summary.

DEFENSE ACQUISITION EXECUTIVE SUMMARY

INDEX

FORMAT	SUBJECT
1	COVER SHEET
2	PROGRAM AND CONTRACT COST INFORMATION SUMMARY
3	SUPPLEMENTAL CONTRACT COST INFORMATION
4	PROGRAM SCHEDULE MILESTONES
5	PROGRAM FUNDING SUMMARY
6	PROGRAM ASSESSMENT, COST ESTIMATE, AND DELIVERY STATUS
7	PROGRAM VARIANCE ANALYSIS

Figure 3.4

The Program and Contract Cost Summary seeks to link two separate, but related, reporting systems. One is the status reporting system which is the subject of this study. The other is the contractor performance measurement system used by program offices to manage contracts. The contract information in Selected Acquisition Reports, Unit Cost Reports, and Format 3 of the Defense Acquisition Executive Summary is from the latter system. The problem which prompted the OSD Defense Acquisition Executive Summary initiative was the inability to relate that information to "bottom line" program requirements. (7:993) Figure 3.5 highlights how the Program and Contract Cost Summary provides the missing link.

The contractor performance information and program manager's estimated price at completion for individual contracts are the same in the Selected Acquisition Report, Unit Cost Report, and Defense Acquisition Executive Summary for those contracts which appear in all three reports. Recall that

Unit Cost Exception Reports

The information in Unit Cost Exception Reports is very similar to that contained in Unit Cost Reports. The significance of a Unit Cost Exception Report lies not so much in its contents as in the fact that it was generated in the first place. It alerts the entire "establishment" that some combination of management and/or congressional decisions has caused a cost increase. It does not identify which management nor does it necessarily mean that a program has serious problems. It does not even mean that the decisions were wrong--only that the impact was higher costs. It does, however, prompt an investigation into the causes. The underlying assumption is, of course, that such investigations will lead to better management overall.

One other feature of unit cost reporting is worth noting at this point. When a Unit Cost Exception Report is submitted, the baseline for the cost element in question is "reset." (That is, the unit cost baselines shown in the Selected Acquisition Report "shall agree with the revised procurement [unit costs] for the budget year shown in the last [Unit Cost Exception Report] submitted to Congress.") (11:3-6) This precludes a continuous flow of Unit Cost Exception Reports which describe the same problem. After a program has been rebaselined, however, Unit Cost Exception Reports are required for increases of five percent or more vice the 15 percent in effect before the first breach.

DEFENSE ACQUISITION EXECUTIVE SUMMARY

The Defense Acquisition Executive Summary was controversial when it was unveiled in 1982; it remains so today. A major concern was the detrimental impact of releasing the program manager's estimated price at completion *as it is computed for unit cost reporting* to anyone outside the program office. The danger was that contractors might obtain the information, undermining the program manager's negotiating position in future contracting actions. OSD accepted this argument and changed the report accordingly (Figure 3.3). The services also objected to the level of detail required in the Defense Acquisition Executive Summary as well as the degree of duplication between it and other status reports. OSD was not receptive to these objections and, after two years of debate, published the implementing directive. With this history, it was not surprising that many of the "technical" questions about how to prepare the report were unanswered when the first set was submitted in June 1984.

There is a high degree of redundancy between the Defense Acquisition Executive Summary and other reports. Appendix C is an extract from the Defense Acquisition Executive Summary instruction which explains purpose of each exhibit (10:Enclosure 3); two recent reports are in Appendix D. Figure 3.4 contains the Defense Acquisition Executive Summary index. Many of the subjects in the index should look familiar since the Selected Acquisition Report index displayed in Chapter 2 is very similar. In fact, the information differs to some degree in the formats with similar (or identical) titles. In some cases, such as schedule, contractor costs, and variance analysis, for example, one report has more detail than the other. A slightly expanded

completion is "baselined." That is, the program manager's estimate of how much will be spent over the life of the contract is established and changes to that estimate are monitored. This estimate does not represent the same thing as the estimated price at completion shown in the Selected Acquisition Report. Figure 3.3 shows how the program manager's current estimated price at completion (PMCEPAC) is defined in the Selected Acquisition Report, for unit cost reporting, and in the Defense Acquisition Executive Summary (discussed later). The estimate which is baselined differs from the Selected Acquisition Report in that it allows for work which the program manager knows must be done but which cannot be defined well enough to put on contract yet. It also allows the program manager to allocate some portion of his or her management reserve for "unknown unknowns." The baselined estimate differs from the Defense Acquisition Executive Summary in that these additional costs are identified for each contract included in the program's contract cost baselines. (NOTE: The anticipated effort is referred to as future work in the Defense Acquisition Executive Summary and, like the management reserve, is given as a single sum.) This is possible because the contract cost baselines do not leave the program office. They must, however, be available for review by outside agencies. Once a contract is included in the contract cost baselines, it remains until it is 90 percent complete. Only the top six contracts are subject to breaching the 15 percent threshold at any point in time. Breaching a contract cost baseline results in a report to the Secretary of the Air Force. If a procurement unit cost increases by more that 15 percent, however, a Unit Cost Exception Report is submitted to Congress.

CONTRACT INFORMATION COMPARISONS

	SAR	UNIT COST REPORTING	DAES
COVERAGE	TOP SIX CONTRACTS	TOP SIX CONTRACTS	ALL LARGE (>$20M)
PROGRAM MGR'S ESTIMATED PRICE AT COMPLETION	ON CONTRACT + AUTHORIZED	ON CONTRACT + AUTHORIZED + ANTICIPATED + MGT RESERVE *FOR EACH CONTRACT*	ON CONTRACT + AUTHORIZED + ANTICIPATED + MGT RESERVE *TOTAL FOR ALL*

Figure 3.3

the requirement for a unit cost exception report if any one of three costs grows by more than 15 percent. It also made the service secretaries responsible for the reporting system and directed that they be provided a quarterly report on each program to help them carry out this responsibility. OSD then wrote the implementing directives, i.e., OSD specified *how* the responsibility would be implemented. (12:--)

Unit Cost Reports.

Two of the three costs which are controlled in unit cost reporting are the program acquisition unit cost and the current fiscal year procurement unit cost (Figure 3.2). These particular costs are in the Selected Acquisitior Report. In fact, the Selected Acquisition Report is the basis for breach of the unit cost baselines. Unit Cost Reports (Appendix B) provide the service secretaries a quarterly update of the unit cost information in the baseline Selected Acquisition Report. They also update Selected Acquisition Report contractor performance information. However, the Selected Acquisition Report is *not* the basis for breach of contract baselines (the third controlled cost). Contract cost baselines serve this function.

UNIT COST REPORTING
DEFINITIONS

PROGRAM ACQUISITION UNIT COSTS	=	TOTAL PROGRAM COSTS / TOTAL QUANTITY
CURRENT FY XX PROCUREMENT UNIT COSTS	=	FY XX PROCUREMENT COSTS / FY XX QUANTITY
PROGRAM MANAGER'S ESTIMATED PRICE AT COMPLETION	=	ON-CONTRACT EFFORT + AUTHORIZED EFFORT + ANTICIPATED EFFORT + MANAGEMENT RESERVE

Figure 3.2

Contract Cost Baselines

Contract cost baselines is the name given to what is, in effect, an internal program office tracking mechanism. When a contract becomes one of the six largest active contracts on a particular program, its estimated price at

requirement within 60 days of the breach determination. The prohibition on the obligation of funds does not apply if the increase was caused by terminating or cancelling acquisition programs. (6:15)

This summary of the provisions in the Nunn-McCurdy Amendment is a standard passage in the Congressional Budget Office annual Selected Acquisition Report review. It represents a Congressional perspective on how the revised process is supposed to work. Four items are noteworthy. First, the key parameters (according to the Congressional Budget Office, at least) are the program acquisition unit cost and the procurement unit cost. These parameters are not only in the Selected Acquisition Report, but the Selected Acquisition Report values are the baseline for unit cost reporting. Second, the increases are measured in current rather than constant dollars, a significant departure from the tradition of excluding the impact of inflation when evaluating management performance. Third, the law has "teeth." No one ignores the possibility of losing obligation authority. Finally, the Congressional Budget Office summary omits one of the Amendment's most salient features. Exception reporting is also required if any of a program's top six contracts (in dollar value) exceed their baselines by more than 15 percent. The Selected Acquisition Report does *not* establish the baseline for exception reporting in this case.

The fundamental purpose of unit cost reporting is to provide Congress prospective vice retrospective information on weapon system acquisition programs. Congress recognized the DoD concern about the danger of too much micro-management if prospective information were provided on a recurring basis. To reduce the possibility of this occurring, they made unit cost reporting an exception reporting system. In effect, they legislated one report and a set of procedures (Figure 3.1). Specifically, the legislation established

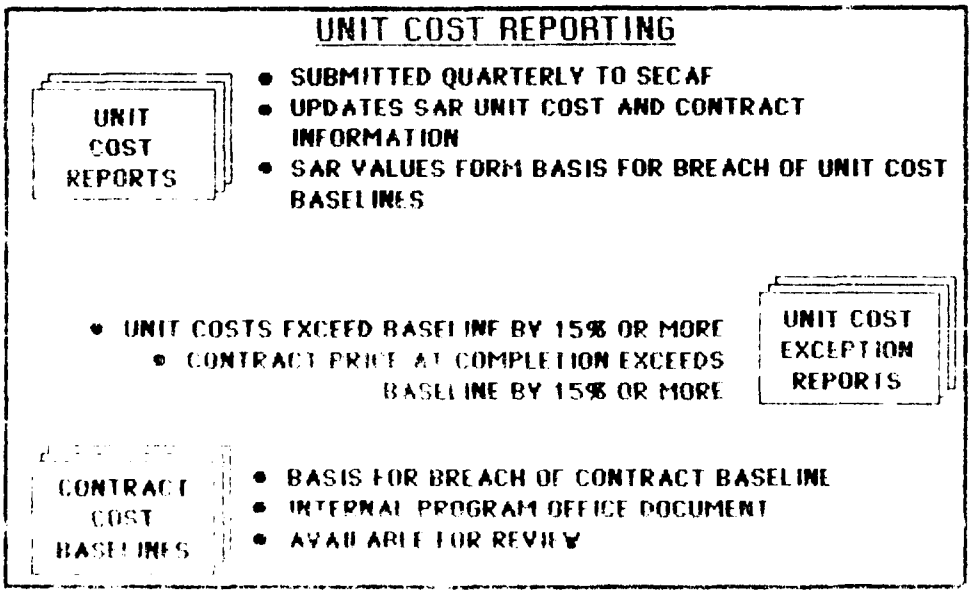

Figure 3.1

Chapter 3

MAJOR WEAPON SYSTEM ACQUISITION PROGRAM STATUS REPORTING PART II

Status reporting on major weapon system acquisition programs today continues to include the Selected Acquisition Report described previously. It now also includes unit cost reporting and the Defense Acquisition Executive Summary (DAES). The process by which these reports are generated and reviewed includes the same players performing essentially the same functions with two exceptions. First, unit cost reports do not go beyond the service secretaries unless certain thresholds are breached. Second, the Defense Acquisition Executive Summary goes no further than OSD under any circumstances. Unit cost reporting clearly flows from the Congressional concerns described in the previous chapter. The Defense Acquisition Executive Summary, while implemented in conjunction with unit cost reporting, is an OSD initiative. This chapter completes the description of the status reporting system by describing unit cost reporting and the Defense Acquisition Executive Summary. It then revisits the weaknesses identified in Chapter 2 and assesses how well the changes implemented over the past two years redress those weaknesses.

UNIT COST REPORTING

The 1983 Defense Authorization Act (Public Law 97-252) established a three-tiered reporting requirement to identify programs that have significant cost growth. The purpose is to provide a means by which the *Congress* [emphasis added] can become aware of cost growth early enough to take remedial action. The so-called Nunn-McCurdy Amendment requires that the secretaries of the Army, Navy, and Air Force notify the Congress of programs in which: (1) the program acquisition unit cost is more that 15 percent above the baseline or (2) the procurement unit cost for [the current fiscal year] is more than 15 percent above the baseline. If unit-cost growth exceeds the baseline by 25 percent or more, the Secretary of Defense must certify in writing that the system is required.

The baseline used for these reports is the cost estimate in the first SAR submitted to the Congress on the program, or the estimate in the December SAR for the fiscal year immediately before the current fiscal year, whichever is later. Thus the baseline is updated annually. All costs are measured in current rather than constant dollars. Authority to obligate funds for a program is automatically terminated if the service secretary does not submit a report within 30 days or if the Secretary of Defense fails to certify the system

system were in place, it would be possible to simplify the Selected Acquisition Report. (7:124-134)

Program Office

From the program office perspective, the Selected Acquisition Report's complexity was a major problem. Almost every organizational element was involved in preparing and staffing one. In 1982, there was no automated system to help with the computations or to ensure consistency. It was a very labor-intensive effort which continued through most of the review process. Further, its utility to the program office was questionable. It had ceased to be a means of surfacing and resolving problems when it became a DoD report to Congress. As a "report card" on the program manager's performance, it was seriously flawed. Most users assumed that the information in the Selected Acquisition Report reflected the program manager's best estimate of the program descriptors (technical, schedule, cost). (5:1) It did so only to the extent that his or her estimates were incorporated into the most recent budget submitted to Congress. The total cost to complete the program as well as any other program parameters which were included in the budget submission had to match that submission. The variance analysis was, thus, a reconciliation between the program manager's best estimates and the results of the resource allocation process. Any "disconnects" between the resources which were available and the program which could be executed within the available resources were picked up in subsequent Selected Acquisition Reports as changes or estimating errors of some sort. Meanwhile, the program manager was on record to Congress as saying that the available resources were adequate to do the job. The most common ramification of this was the appearance of cost growth due to estimating error or mismanagement.

SUMMARY

The description of status reporting prior to passage of the Nunn-McCurdy Amendment was a description of the Selected Acquisition Report and its processing. The foregoing discussion has highlighted those aspects of the process which contributed to the dissatisfaction expressed in 1982. Complexity was on everyone's list. Beyond that, the dissatisfaction of any particular group arose from that group's view of the "demand function"--the program manager's report card versus OSD's documentation of decisions versus Congress's source of prospective information. The Nunn-McCurdy Amendment attempted to rectify the weaknesses which caused the dissatisfaction. The next chapter examines the results in terms of what the status reporting system is today and how well today's system redresses the weaknesses identified above.

> Under the new DOD acquisition procedure, SARs may not be initiated until after major programs have completed the Advanced Development and System Demonstration/Validation phases of the acquisition process and are well into full-scale development. These phases typically require an average of 9 years. Therefore, generally 9 years may have elapsed before a major program is first reported in a SAR; . . . and
>
> Although the SAR system provides quarterly updates on major weapon systems, many substantive changes are reported only once a year and are reflected in the December 31 SARs. The December 31 SARs coincide with the President's budget submission and reflect program changes resulting from budget decisions for the next fiscal year. Therefore, the SAR system does not provide the Congress with continuous visibility of programs with potentially high cost growth. (8:11-12)

From a Congressional perspective, then, the status reporting system, as it existed in 1982, did not provide insight into potential cost growth problems or the impact of management decisions. Further, it did not cover enough programs nor did it begin coverage early enough in the life cycle. Finally, Congress recognized that the Selected Acquisition Report documented budget decisions and the impact that factor had (and has) on the timing and nature of the information they received. Repeatedly, the discussions during the hearings came back to the issue of prospective versus retrospective information. In every case, the witnesses agreed that the Selected Acquisition Report provided retrospective information only. (7:33, 125, 981, 1081, 1093) If one assumes that what a program will cost in the future is a relevant consideration when deciding how to allocate resources, then the Congressional concerns were valid. However, the kind of information which would alleviate these concerns would also provide them the opportunity to "micro-manage." (7:1023)

OSD

From the OSD perspective, the panel's findings on the Selected Acquisition Report were accurate. In fact, Congress should not have been surprised by the Selected Acquisition Report's attributes given the fact that it was a DoD status report to Congress. As a program manager's report to the Secretary of Defense, it had been a useful document for surfacing potential problems as they became known (prospective in nature). To provide prospective information to Congress on a recurring basis, however, would have preempted the ongoing decision-making process at lower levels. As the annual event which forced the culmination of that process, submission of the President's budget was the logical time to surface changes to Congress. The Selected Acquisition Report, then, had ceased to be a decision document when it became a status report to Congress; at that point, it became a means of communicating decisions made during the year. The primary problem with the Selected Acquisition Report itself was that, in an attempt to use it to respond to diverse requests for information, OSD had made it too complex. The criticism that it contained no prospective information was not valid in that it would have been unreasonable to expect any recurring report to Congress to include that sort of information. The only reasonable way to obtain credible prospective information would to be to establish an exception reporting system. In fact, if an exception reporting

The Selected Acquisition Report coordination and approval cycles at each level in the organizational hierarchy are not atypical of such processes. Functional staff elements identify changes (if any) required for their endorsement. The changes are incorporated, and a product emerges which represents the corporate position. The AFSC Commander, Chief of Staff of the Air Force, Secretary of the Air Force, and Secretary of Defense then approve (or further modify and approve) the product before it goes to the next level. The review and approval process is such that the product which goes to Congress may be something quite different from the product prepared by the program office; what began as a program office status report is transformed into a DoD position on the status of a major program. This transformation, more than any other factor, caused the dissatisfaction which led to changes in the weapon system acquisition program status reporting process.

THE WEAKNESSES

A striking feature of the "common wisdom" about status reporting prior to implementation of the changes was the degree of consistency in the criticisms. What varied were opinions on the implications of the perceived flaws, and these variations reflected differing opinions on what needs status reporting should serve. To illustrate, this section will summarize the weaknesses from three perspectives--Congress, OSD, and the program office--beginning with the Congressional perspective.

Congress

In 1982, Congressman McCurdy chaired a special panel which conducted hearings on cost growth in weapon system acquisition programs. During the hearings, he focused on inadequate status reporting as one of the contributing factors to cost growth. The panel's recommendations on status reporting became the provisions of the Nunn-McCurdy Amendment. Its findings on status reporting summarize the Congressional perception of weaknesses.

> The panel finds that the present [SAR] system does not consistently provide the Congress with timely and complete information and that the SAR system is largely an historical reporting system. Therefore, SARs do not provide the forward looking cost information necessary for detecting potential cost growth problems.
>
> Specifically, the panel finds that:
>
> The absence of more timely and complete information hinders the efforts of the Congress in exercising its oversight responsibilities;
>
> The present SAR system is a retrospective reporting system and does not routinely provide information when exceptional events occur which may result in significant cost growth. Hence, it does not provide information on program and contract costs that would assist in the early detection of potential cost growth problems;
>
> The intent of Public Law 96-107 [the existing SAR legislation] was to provide dollar thresholds for systems to be reported in the SAR system, but the DOD practice is such that, unless systems are designated by the Secretary of Defense as "major systems," they may not be reported in the SAR system, regardless of cost;

cause a quarterly Selected Acquisition Report to be required. For example, if an event does not occur as scheduled, the program office prepares a quarterly Selected Acquisition Report identifying the change, its impact, and the reasons for the change. On the other hand, if an event *will not* occur next year, the program office documents the changes in the next annual Selected Acquisition Report. As the Principal Assistant Deputy Secretary of Defense (Comptroller) told Congress, "Until we decide what the solution to the problems will be, [you won't] see them...." (7:126) All Selected Acquisition Reports, annual and quarterly, go through the same review process.

The Selected Acquisition Report review process begins with working level review meetings at HQ AFSC and culminates with the OSD submission to Congress after formal coordination/approval cycles at HQ AFSC, HQ USAF, and OSD (Figure 2.3). (HQ AFLC and HQ AFCC, not shown, also conduct reviews.) The initial step is a joint review by HQ AFSC and HQ USAF. This consists of a series of meetings with members of each program office which submitted a Selected Acquisition Report. The headquarters staff representation varies according to the program being reviewed but always includes people with both financial and programmatic expertise. The meeting itself is a line-by-line review of the document, and the discussions range from how to treat substantive issues to whether or not a comma is appropriate. Minor issues are resolved at the meeting; major ones are resolved within a few days. Changes resulting from the meeting are incorporated into the Selected Acquisition Reports prior to the formal coordination/approval cycles, normally by program office personnel.

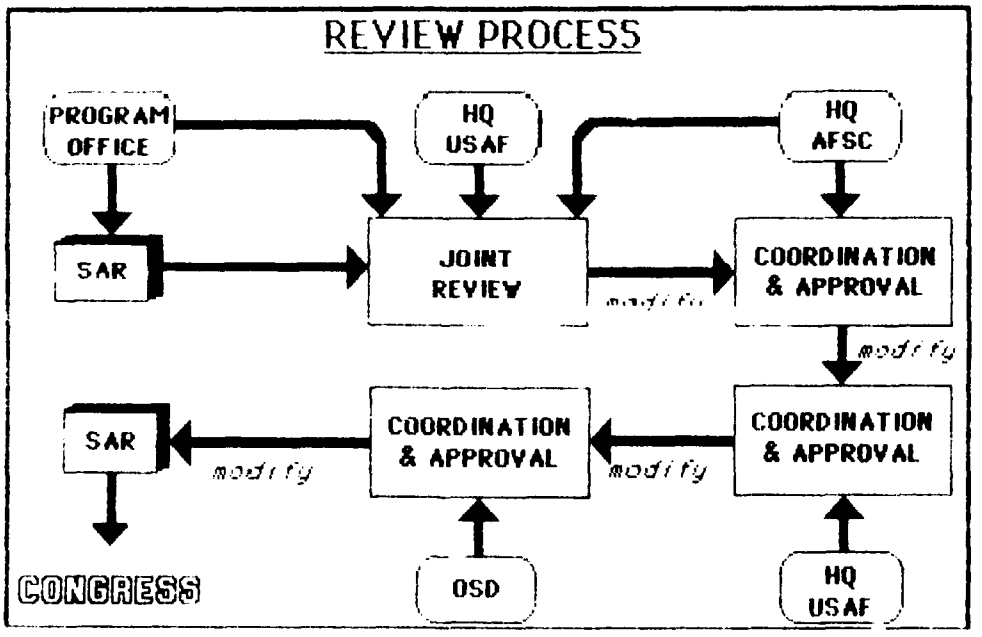

Figure 2.3

variance analysis section). The missing funds were restored during the subsequent budget formulation phase. Since the production rates (quantities) did not change this time, the unit cost increased, and the only available explanation for the change was "estimating error." Congress, meanwhile, was surprised by the new budget request and frustrated by the official explanation which followed in the Selected Acquisition Report. While this is a hypothetical example, this author has seen variants of the scenario occur often enough to consider it typical. It not only illustrates that Selected Acquisition Reports are inherently complex because of internal linkages, but introduces the notion that the complexity is compounded by external linkages.

The Selected Acquisition Report *is* a complex document. It is also rigid with both the formats and computations being prescribed. The rigidity, however, has resulted in a high degree of standardization among reports. A pattern, common to all Selected Acquisition Reports, quickly emerges when one is examined: original estimate, current estimate, and explanation of changes within the prescribed categories of information. That is, *it describes what has happened to a program relative to what was intended to happen.* Because of the internal and external linkages, complexity, and the importance of these reports, an elaborate review process has evolved.

THE PROCESS

Program office personnel prepare and submit Selected Acquisition Reports at least once each year. They use data captured during program execution to update the status information and explain the changes. Program execution, broadly speaking, involves planning the program in terms of what, how many, when, and how much; actually doing the tasks; measuring the results (in the same terms used to plan the program); and modifying the plan as necessary. This information, inherent in the program execution process, is sufficient to answer the internal questions (i.e., what has happened relative to what was intended to happen and what caused the variances) posed by the Selected Acquisition Report. For example, program offices receive contractor performance reports which indicate how much work has been accomplished versus how much was planned when the contract was awarded, how much the work accomplished cost versus how much was planned, detailed explanations of why the differences occurred, and projected impacts of past changes on future work. The information is used to manage the contract and to prepare a Selected Acquisition Report. The same is true for every category of information *except* the program funding summary. HQ USAF provides the funding (and quantity) information two weeks before the Selected Acquisition Report is due to Headquarters, Air Force Systems Command (HQ AFSC). Recall that this information, via internal linkages, directly influences the changes which must be explained in the Selected Acquisition Report.

The annual Selected Acquisition Report is due to Congress 60 days after the President's budget proposal is released. If a program's total cost increases by at least five percent or a scheduled event "slips" by at least three months during the year, the program office prepares a quarterly report. (11:3) Since the basic program content must coincide with the latest President's budget submission, only the activities which are occurring during the current year can

display must be the same as the funding in the latest President's Budget request to Congress. Equally important, the quantities must be the same as those in the President's Budget in both annual and quarterly reports. Note that this is an *external* linkage, i.e., the report is linked to the resource allocation process. (11:3-7) The second important linkage is between the Program Acquisition Cost display and the Cost Variance Analysis. Again, the totals must be equal. Finally, there are seven potential explanations for cost variances, each of which is computed in a specific sequence and according to stringent rules. (11:3-7 - 3-8) This represents the third important linkage--the linkage among the potential explanations of cost variance. The following hypothetical, but not unrealistic, example illustrates the significance of these linkages.

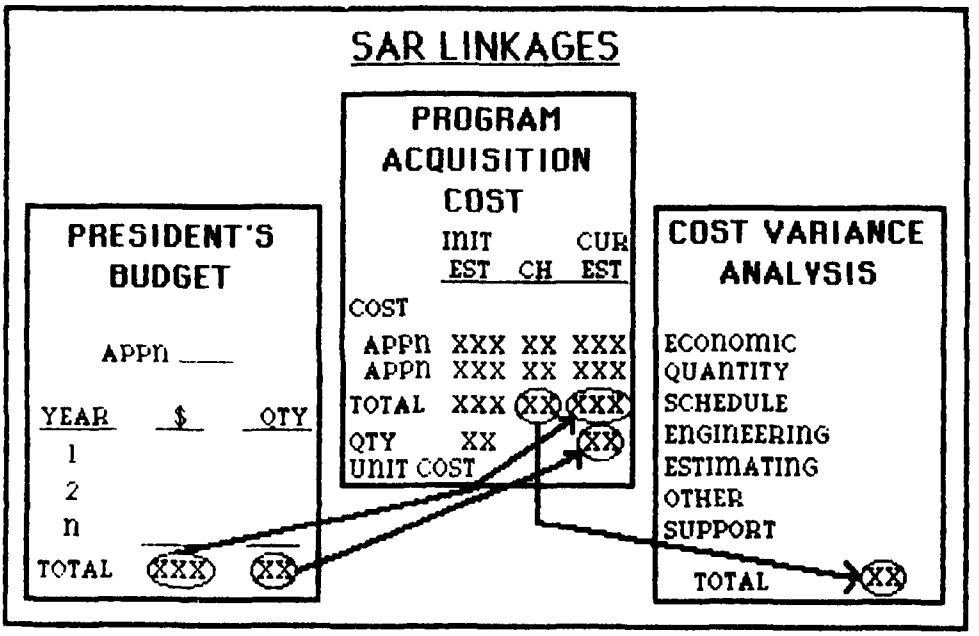

Figure 2.2

Suppose a program manager was committed to delivering a specified number of systems in a specified timeframe for a specified cost. His or her estimate of the costs to complete the program was predicated upon a specified procurement rate. Further, suppose that this commitment was documented in the initial Selected Acquisition Report to Congress. During the next budget formulation phase, the procurement rate was reduced in the budget year because of more pressing requirements for funds. The quantity taken out in the budget year was added back later in the program along with the funds. Unfortunately, insufficient funds were added back. Since this was a last-minute change, the program manager was unable to get the mistake corrected in the President's Budget request. Thus, the error was included in the annual Selected Acquisition Report (complete with an explanation in the

impact of resource allocation decisions made between budget submissions. (7:126) If you are a program manager, it is your report card to Congress. If you are the action officer who prepares a Selected Acquisition Report, it is confusing. Much of the testimony before Congress indicates that, of all the perceptions on the subject, only the action officer is right. No matter how many perceptions exist about the Selected Acquisition Report, however, it only does two things. First, it describes what has happened to a program relative to what was originally intended to happen. Second, the Selected Acquisition Report reconciles a program's past with the most recent decisions on its future. To do this, a highly stylized document has emerged.

The Selected Acquisition Report is a rigidly structured report which contains two basic types of information: program content and a complete track of all changes to the program since the initial Selected Acquisition Report. Figure 2.1 is the prescribed index for all annual Selected Acquisition Reports and shows the categories of descriptive data. The example of a Selected Acquisition Report provided by OSD in the recently revised instruction (11:3-1-1 - 3-1-9) is in Appendix A. The pattern of current status, previous changes, and changes since last report within each descriptive category shows up clearly in the report. Less clear are the linkages which contribute to the overall complexity.

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INDEX

Figure 2.1

The linkages of particular importance are illustrated in Figure 2.2. The first is between the Program Acquisition Cost display and the President's Budget. For the annual report, the costs shown in the Program Acquisition Cost

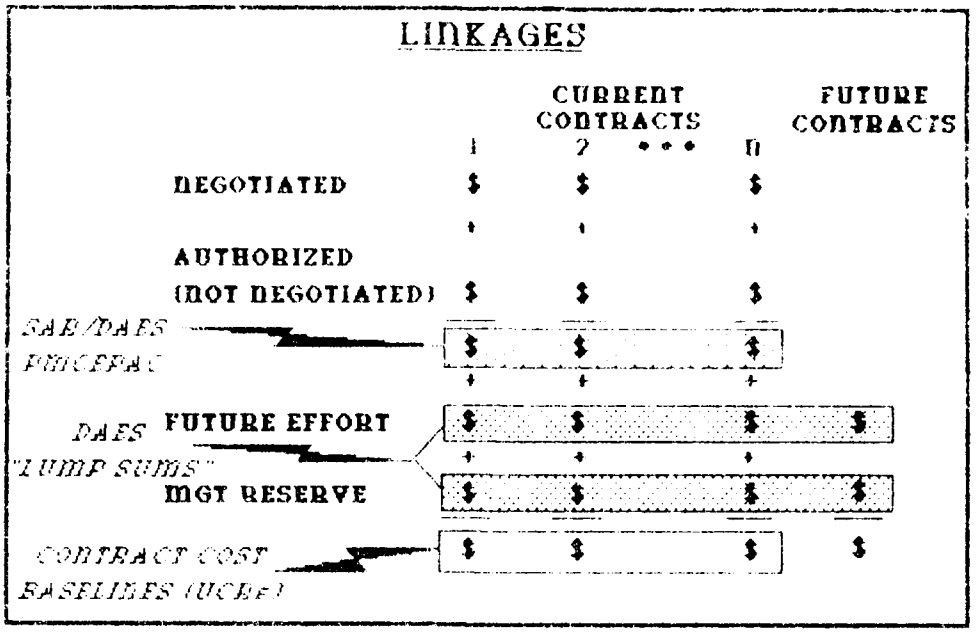

Figure 3.6

relationships highlighted in Figure 3.6 do not. Notice, in particular, that the contract cost baselines required for unit cost reporting are composed of factors controlled by the program manager. The same cannot be said of the two unit cost baselines.

THE REVISIONS - A RECAP

As shown in Figure 3.7, unit cost baselines are a function of approved funding and quantities. The discussion in Chapter 2 established that these may or may not be within the program manager's control. Yet all of the reports in the status reporting system continue to talk in terms of the program manager's estimates. The revised system thus remains somewhat misleading. However, the changes have rectified many of the deficiencies which prompted the changes in the first place.

Unit cost reporting provides prospective information to Congress as soon as a problem is identified. It does so on an exception basis thus accommodating OSD's concern over the potential for micro-management at the Congressional level. Further, one of the three parameters in the program manager's new "report card" (contract cost baselines) is actually controlled by the program manager. Adding the Defense Acquisition Executive Summary to the status reporting system was the other major change which occurred after Congress passed the Nunn-McCurdy Amendment. An OSD initiative started before the Amendment was passed, its purpose was to provide OSD the prospective information it felt it needed when Deputy Secretary of Defense

Carlucci implemented his "centralized policy, decentralized management" policy. Particularly noteworthy is the fact that the Defense Acquisition Executive Summary links contractor performance with funding availability. Finally, OSD published revised Selected Acquisition Report preparation instructions in December 1984 which reduced its complexity as well as some of the data redundancy in the status reporting system. (10:--) Overall, the major Congressional and OSD concerns have been redressed by the changes since 1982. Problems remain, however--some old, some new.

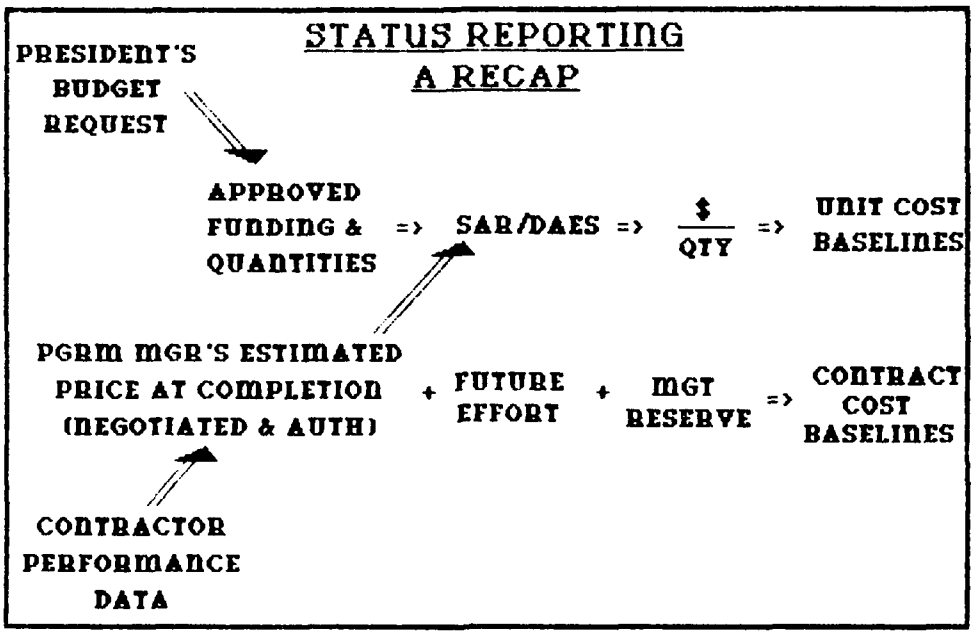

Figure 3.7

Chapter 4

A FRAMEWORK

The discussions so far have focused on assessing status reporting in terms of what Congress and OSD want without explicit treatment of what a management control system should do. There was a theoretical underpinning implicit in some of the assertions, however. For example, the notion that the system is misleading because the reports attribute positions to program managers which they may not have implies that doing so is "bad" *in principle*. This chapter presents the study's theoretical framework. Recall that the purposes of a management control system are to measure how closely the actual outcome of decisions match the intended outcome, to influence the behavior of organizational entities, and to provide information to a continuing planning process. The framework is derived by combining these purposes with the acquisition process.

An extremely simplified view of the acquisition process is presented in Figure 4.1. This view eliminates a specific timeline and focuses on the

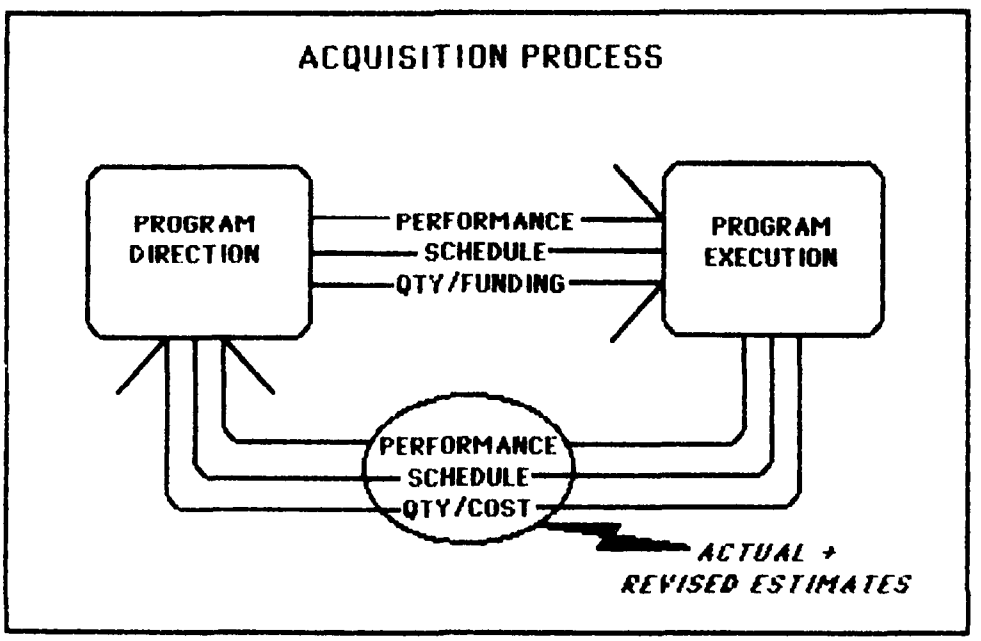

Figure 4.1

iterative nature of decision-making in the process. It also collapses the organizational hierarchy into two levels--one which makes decisions and one which implements them. Finally, it does not explicitly show the interactions between the acquisition process and the resource allocation process; however, it does show the transformation of cost into funding. It also shows where status reporting fits in the process.

The acquisition process is a continuing series of decisions on what a program should be (what, how many, when, how much), implementation of those decisions, and revisions to the direction (new decisions) based on actual experience and changing conditions. Status reporting is *the means by which actual experience is fed back into the decision-making process.* The information which flows back is some mixture of actual experience and revised estimates which reflect the projected impact of that experience. As the program matures, the ratio of actual experience to estimates in the "bottom line" values increases, and the uncertainty decreases. Actual experience, however, is but one of the factors which influence the decisions. Changing conditions such as the threat, the political environment, resource availability, and emerging technologies also enter into the "equation." Thus, the program direction which flows into a program office reflects decisions which may or may not have been based on actual experience and its projected impact. Further, when viewed from within the program office, the direction itself becomes a source of program uncertainty. Ideally, the management control mechanism (status reporting) should be able to distinguish between variances caused by program execution (operations) and those caused by program direction (decisions). (1:172) Figure 4.2 illustrates why status reporting systems should have this characteristic. (1:181)

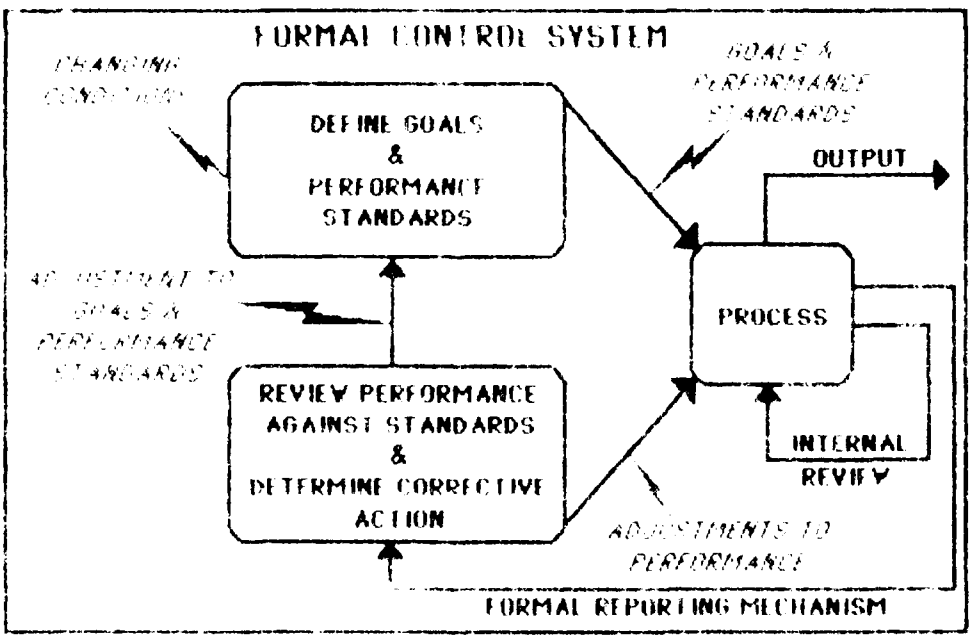

Figure 4.2

The illustration shows the dual role which feedback plays in a management and control system. First, it allows management to identify and correct operational problems which might be causing actual outcomes to differ from the outcomes which were intended when decisions were made during the planning phase. Second, it allows management to adjust their planning factors. In either case, the primary purpose of feedback is to improve the quality of decisons--whether they be operational decisions or planning decisions. Note that performance standards form part of the set of assumptions which go into the planning activities. They also communicate management expectations as decisions are passed down the organizational hierarchy for implementation. Given their importance, it is not surprising that what they should be and how they should be established are the subjects of extensive research--much of which is inconclusive. Researchers do agree on two things, however. First, the parameters themselves tell employees what top management considers to be important. Second, if used to evaluate performance, the standards influence behavior--but often in an unpredictable way. (1:175, 179-180) Thus, a status reporting system should be structured in such a way that it can provide information which will improve decision making without sending unintended signals to those who will implement the decisions. To bring this closer to the world of acquisition management, consider the illustration in figure 4.3.

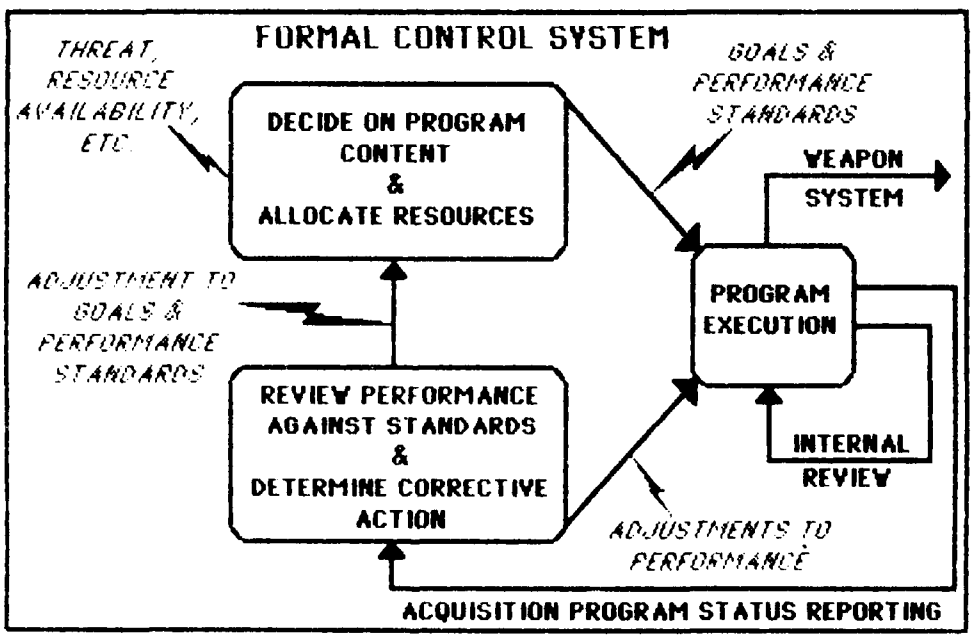

Figure 4.3

The model in figure 4.3 is the same as the one discussed above adjusted to reflect the acquisition process. The "goals and performance standards" are weapon system performance characteristics, schedule, unit cost baselines, and

contract cost baselines. Status reporting then provides the results to date. The information includes sufficient explanation of the variances to permit determining whether or not the goals and performance standards should be adjusted. The adjustments to performance are not necessarily made to correct mismanagement. For example, funding constraints may have caused some development activities to be delayed. One alternative would be to change the date for the initial operating capability, i.e., change the standard. Another would be to increase the degree of concurrency between development and production activities (change the performance). Another example is deciding, based on the feedback, what to do if the logistics infrastructure cannot be in place as scheduled. Again, the date for achieving the initial operating capability could be changed. An alternative would be to plan for contractor logistics support for some interim period. The point is that "determining corrective action" is not a "finger pointing" exercise. That is, one of the fundamental purposes of status reporting is *to improve the quality of decisions--whether they be planning decisions or operational decisions--by providing feedback which reflects actual experience.*

One other theoretical issue needs to be explored within the context of the acquisition process before identifying specific problems which remain in today's status reporting process. That issue is the impact which the *nature* of the goals and performance standards has on subordinate organizations. As noted earlier, the research in this area is inconclusive in the sense that no one has formulated a method of devising performance standards which precludes dysfunctional results. Researchers agree that performance standards influence behavior; the question is how. The reason the answer to this question has remained a mystery is that a number of poorly understood factors interact--three of which are worth mentioning here. The first is controllability. The issue here is to what extent should performance indicators reflect things which are outside the manager's control. For example, to what extent should a program manager be held accountable for breaching unit cost baselines given that resource availability will frequently determine their value? Most practitioners assume that the system is more effective if the performance measures are entirely controlled by the activity being evaluated. (2:177-178) The difficulty the DoD has encountered in establishing supportability goals which effectively influence program managers' behavior during the acquisition process is a good case in point. (4:12-13) A second, related factor is the degree of participation in setting the standards. In fact, the academic community has concluded that "increased participation in setting the standard can lead to either increased or decreased performance" when assessed on a behavioral basis. (1:183) Participation, however, can improve the quality of the standard when the subordinate organizations possess "superior knowledge." Finally, what happens when the standard is too high or too low? Again, there is not a definitive answer because reactions vary according to personalities. Research *does* indicate that, in general, performance is higher when the standards are accepted and attainable. (1:185) The fact that the nature of the performance indicators influences behavior means that status reporting should be assessed in terms besides "accounting completeness." Behavioral implications are also important.

The *principles* (or more precisely, assumptions) implicit in the preceding chapters and the proposals which follow derive from a theoretical framework

which considers the purposes and behavioral implications of management control systems. Perhaps the most fundamental purpose is to improve the quality of decisions--both planning and operational. Status reporting contributes to this in two ways. First, it is the means by which problems are identified. To be useful, the information should clearly identify whether the "variance" between planned and actual is caused by planning or execution. Second, it is the means by which actual experience is fed into the planning process. Within the acquisition arena, this is especially important because the program managers really do have "superior knowledge" about their programs. Management control systems (whether explicitly intended or not) send signals down the organizational hierarchy on what the higher levels consider important, i.e., they influence behavior. While there is considerable debate on how they influence behavior, there is fairly widespread agreement that the performance measurements should be within the control of the organization (or person) being held responsible. It should be clear by now that status reporting on weapon system acquisition programs does not embody all of these principles. The next chapter suggests some ways to move it a little closer.

Chapter 5

PROPOSALS

When viewed in terms of the "demand function," the changes in weapon system acquisition program status reporting implemented over the past two years have had the desired results. That is, Congress and OSD now receive information which, by its nature--prospective vice retrospective--meets their perceived needs better than that provided prior to the changes. This is a fairly uninteresting conclusion given the fact that Congress and OSD prescribed the changes. More interesting is the observation that they also improved the quality of the program manager's "report card." Specifically, they created a performance indicator which measures variables controlled by the program manager--the contract cost baseline. With this one exception, the changes did little to improve the system when viewed in terms of the "supply function." In fact, the system is more complex than before, and the volume of information is much greater. Moreover, the terminology, at least, is still misleading. For example, the "program manager's current estimated price at completion" may not be the program manager's estimate at all. This chapter addresses these issues and discusses approaches for dealing with them. The issues fall into two broad categories--those related to quality of information and those related to overall efficiency. Before addressing the specific issues, however, the remaining assumptions underlying the study are presented.

ASSUMPTIONS

Most of the assumptions are inherent in the framework just presented; however, there are others. First and foremost, the Air Force cannot eliminate status reporting to Congress or OSD. The Defense Acquisition Executive Summary is a notable example. The three services displayed a united front in opposing this requirement to no avail. Second, resource availability will continue to be a problem. Competition among validated requirements is a fact of life which is not likely to change. If history is an indicator, cancelling programs will be a last resort. Therefore, the resources available to any program will be an allocation which reflects relative priorities rather than the results of computing what is required to execute an optimally structured program. Third, complexity will remain a characteristic of the status reporting system. Status reporting reflects the results of decisions made in two, overlapping processes--the resource allocation process and the acquisition process. Both are complex; reporting on their interactions can be no less so. Fourth, it is in the Air Force's best interest to do whatever is necessary to improve the quality of the reports generated in this process. The premise here is that credibility enhances the likelihood of success in the resource allocation arena--especially the Congressional part of that arena.

Finally, no one involved in this process wants to deceive anyone. The participants are committed to doing what is right--as they understand it.

QUALITY OF INFORMATION ISSUES

There are two problems associated with the quality of information which flows through the status reporting process. The first is that the timing implicit in unit cost baselines is out of line with the timing of Congressional reviews. Specifically, public law prescribes that the baseline for unit cost baselines be the value in the Selected Acquisition Report for the previous fiscal year or the latest Unit Cost Exception Report if the baseline has been previously breached. This means that the program represented in the baseline is probably different from the program in the most recent budget submission (and its accompanying Selected Acquisition Report). Since each annual Selected Acquisition Report explains the impact of decisions made since the previous budget submission, the value of a Unit Cost Report which explains the same thing is questionable. More importantly, it insures that Congress receives dated information. HQ AFSC recently proposed that the baseline be changed to coincide with the most recent annual Selected Acquisition Report. (13:--) This does two things. First, Congress would be notified if the information they are using to make their resource allocation decisions changes. Second, it would eliminate the need for quarterly Selected Acquisition Reports. The Air Force and OSD should, therefore, fully support the AFSC initiative.

The second problem which impacts on the quality of the information provided via the status reporting process results from the linkage between budget requests to Congress and the status reports. This one is tougher because the need to link the two is driven by the need for consistency in what the DoD tells Congress. Inconsistency tends to reduce credibility. Yet, as the system is currently structured, honest mistakes may be perpetuated in the status reports. This, too, threatens credibility. One alternative is to insure that program managers agree that the funding and program content "match" before the budget goes to Congress. There are at least three advantages to this approach. First, the program manager understands the program structure and the relationship of that structure to costs better than anyone else. That person is, therefore, in the best position to formulate alternative combinations of program content and associated costs. By having the program manager validate the particular combination selected during the resource allocation process, the overall quality of those decisions will improve. Second, if the program manager is involved in structuring the alternatives and validates the one which is selected, he or she knows what is intended by the decision. That is not always the case today. The third advantage to this alternative is that the program manager's current estimated price at completion in the status reports is once again the program manager's estimate. The problem with this alternative is that it would be difficult--though not impossible--to implement. The level of activity during the final weeks of budget preparation is one of the contributing factors to last minute mistakes in the first place. Adding another task--program manager validation--could compound that problem. The impact of implementing this procedure could be lessened by restricting it to programs which have to submit Selected Acquisition Reports. These programs tend to be the ones which receive a high degree of Congressional and public scrutiny. In

fact, it is the need for consistency in the information released about them which drives the linkage. On balance, the improvement in decision making throughout the planning phase would seem to justify an additional task at the end of that process--especially if the extra activity is restricted to high-visibility programs.

EFFICIENCY ISSUES

The procedures used in the status reporting process evolved in a period when the Selected Acquisition Report was the only report and fewer programs were involved. Data redundancy was not an issue. Labor intensity and complexity were issues, but the number of programs was small enough that a few experts could serve as "personal advisors" to the action officers who prepared the reports. When this was no longer true (1983), HQ AFSC developed a centralized, automated support system. It not only incorporated some of the more complex calulations, but it further standardized the report itself. More recently (1984), Congress agreed that quarterly Selected Acquisition Reports would no longer be required for small changes in performance, schedule, or costs. Finally, as mentioned earlier, OSD rewrote the Selected Acquisition Report directive to simplify the report. But the basic procedures remain the same. That is, each program office prepares each report and participates directly in the review process. What follows is a proposal which addresses both procedures and data redundancy.

The obvious approach to improving efficiency is to take advantage of the benefits offered by automation. AFSC demonstrated the feasibility of such an approach when they automated Selected Acquisition Report preparation. The system which was implemented, while not without some technical difficulties, did what it was designed to do; it generated a report--the Selected Acquisition Report. Data management consisted of "release protocols" among organizational levels in the hierarchy. Specifically, the system was "opened" to program offices a few weeks before Selected Acquisition Reports were due. As each Selected Acquisition Report was completed (including approval by the program manager and Product Division Commander), control passed to HQ AFSC. This was, in effect, the Selected Acquisition Report submission. Control passed to HQ USAF after the HQ AFSC review and coordination process was completed. Copies of the reports could be generated at any point in this cycle. The prescribed Selected Acquisition Report formats--and, within those, the algorithms--drove the system. That is, *the system was a report generator--not a data management mechanism.* The first problem with this approach has already been encountered. System obsolescence occurs when formats change even if the basic data relationships remain the same. The existing system, for example, became obsolete the day the revised DoD Selected Acquisition Report directive was published. A more fundamental problem with this design philosophy is that it does nothing to reduce data or procedural redundancy. AFSC is currently redesigning the system to accommodate such requirements and changes. This effort includes designing software to prepare Defense Acquisition Executive Summaries. (13:--) A design philosophy which reflects the importance of information management within the context of status reporting would reduce data redundancy and could reduce procedural redundancy.

If the objective is to improve information management, the first tasks are to define the data elements, identify the relationships among them, and specify the ownership of each. A single (probably relational) data base could then be constructed in which each data element appears only once. In the case of status reporting, many of the relationships (linkages) consist of the same information appearing in several reports. Recall that one of the functions of the review process is to insure that this, in fact, happens. The remaining relationships can be specified using standard algorithms--many of which have already been developed for Selected Acquisition Reports. The protocols in a system such as this would consist of specifying *who*, based on ownership, could change each data element *at any time*. Contrast this with the protocols in the automated Selected Acquisition Report system which specify *when* the ability to change *all elements* passes to each organizational entity. To illustrate what this design philosophy entails and some of the advantages, consider the following examples.

The first example is the treatment of contractor performance information. This information appears in every status report but would appear only once in the proposed status reporting data base. More importantly, only the program manager "owns" this data; therefore, only the program manager should have the ability to change it. Currently, this is not the case. Another example is the cost to execute the directed program. There is no way to show the program manager's cost estimate at all in the Selected Acquisition and Unit Cost Reports. At least one program manager does use the Defense Acquisition Executive Summary to compare his cost estimate to the approved funding (Appendix D). To see the importance of making this kind of comparison a feature of the system, consider the example provided by funding (vice cost) and quantity information.

Again, this information appears in every status report--explicitly in the Selected Acquisition Report and Defense Acquisition Executive Summary and implicitly in unit cost reporting--but need appear in the data base only once. This information, however, does not belong to the program manager in that he or she does not make the final decision on what either will be. Why not specify that data ownership be outside the program office? The organizational network for doing this already exists. Every major program has a program element monitor at HQ USAF. The program element monitor would be responsible for all funding and associated quantity data, and only the program element monitor would be allowed to change those data elements in the data base. Two immediate benefits would accrue. First, the status reporting process itself would be improved by accelerating the information flow. Today, HQ USAF sends the quantity and funding information which must be used in status reports to AFSC in a message. The message is typically late because it usually includes most (all, if possible) of the Selected Acquisition Report programs, making coordination a lengthy process. Further, the information is not available when required for some programs because of last minute decisions. The procedure suggested here would uncouple the information on routine programs from that on "non-routine" programs and accelerate the information flow for the routine ones. The second benefit is actually an expansion of the first. A mechanism which accelerates the flow of funding and quantity information at the end of the resource allocation process (President's Budget submission) could also be used to accelerate the flow of that

information throughout the process. Further, if quantity/funding information (owned and updated by HQ USAF) *and* quantity/cost information (owned and updated by the program manager) were in the same data base, the players could converge toward the validated program content/funding "match" mentioned earlier. That is, a system specifically designed to manage information ultimately leads to better-informed decisions.

Once the integrated data base is designed and the ownership/procedural issues are resolved, all that remains is data retrieval (to include report generation). Note that producing Selected Acquisition Reports, Defense Acquisition Executive Summaries, and Unit Cost Reports are natural outgrowths of managing the flow of status information. In fact, focusing on managing the information vice producing the reports presents further opportunities for streamlining the overall status reporting process. Recall that every report is produced by the program office and goes though essentially the same review and approval sequence. An alternative to this, given an integrated data base, is to have the program office generate a single report--one which encompasses every data element. This report would be the vehicle used to obtain the program manager's validation of the information prior to the review and approval cycle. This same report would then be the subject of the review and approval cycle itself. Its approval would signify that the information in the data base is valid, and the Selected Acquisition Reports, Defense Acquisition Executive Summaries, and Unit Cost Reports could be centrally produced. The process would be more efficient by virtue of the fact that each piece of information would be reviewed only once. The quality of the information which the Air Force submits to OSD and Congress would be improved because the possibility of inconsistency among the reports would be removed.

SUMMARY

The discrete proposals presented in this report were categorized as being related to either "quality of information" or "efficiency" issues. Clearly, this is an artificial distinction. The proposal for improving the overall efficiency encompasses the "supply function" issues which were highlighted throughout the report. Equally obvious is the fact that, because the acquisition process and the resource allocation process interact, the issues are not confined to the status reporting arena--nor were the proposals. They were segregated to reinforce the notion that status reporting systems exist to improve the quality of decisions by improving the quality of information provided to decision makers. The quality of information issues were then woven back into the efficiency issue to emphasize the fact that quality is the driving factor--not efficiency. Automating reports will improve efficiency; managing information will improve the process.

BIBLIOGRAPHY

A. REFERENCES CITED

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7. U.S. Congress. House. Committee on Armed Services. Special Panel on Defense Procurement Procedures. Defense Procurement Policies and Procedures: Cost Management and Control. Hearings . . . 97th Congress, 2nd Session. Washington, D. C.: Government Printing Office, 1981.

8. -----. Weapons Acquisition Policy and Procedures: Curbing Cost Growth. Washington, D. C.: Government Printing Office, 1982.

UNIT COST REPORT

PROGRAM: Navstar GPS

2. Contractor: Rockwell International/Collins Type: FPIF
Contract Title: User Equipment FSD
Contract Number: F04701-79-C-0083
Contractor's Estimated Price at Completion: $87.7M
Actual Cost of Work Performed (ACWP) to Date: $83.3M

Variances:

	(a) Baseline SAR Values (31 Oct 82)		(b) Values as of Last UCER		(c) Current Values (31 Jul 84)		(c-a) Change		(c-b) Change	
CV	$-11.3	-22.9%	N/A	N/A	$-15.2	-22.3%	$-3.9	+0.6%	N/A	N/A
SV	$-4.3	-8.0%	N/A	N/A	$-2.0	-2.9%	$+2.3	+5.1%	N/A	N/A

Cost Variance:

The functional category of engineering is primarily responsible for the low cost efficiency cumulative negative cost variance.

Impact to program: Contract will go over ceiling; however, Government liability is limited to ceiling. No increase in funds required.

Schedule Variance:

Schedule variance improved. The schedule efficiency was favorably affected by the final performance claim on several of the Antenna Component cost accounts.

Impact to Program: None

3. Contractor: Magnavox Type: FPIF
Contract Title: User Equipment FSD
Contract Number: F04701-79-C-0085
Contractor's Estimated Price at Completion: $83.4M
Actual Cost of Work Performed (ACWP) to Date: $93.2M

Variances:

	(a) Baseline SAR Values (31 Oct 82)		(b) Values as of Last UCER		(c) Current Values (31 Jul 84)		(c-a) Change		(c-b) Change	
CV	$-0.4	-0.7%	N/A	N/A	$-7.8	-9.1%	$-7.4	-8.4%	N/A	N/A
SV	$-1.3	-2.1%	N/A	N/A	$-3.0	-3.5%	$-1.7	-1.4%	N/A	N/A

UNIT COST REPORT

PROGRAM: Navstar GPS

C. UNIT COST CHANGES

None.

D. TECHNICAL AND/OR SCHEDULE CHANGES

None.

E. CONTRACT INFORMATION (DOLLARS IN MILLIONS)

1. Contractor: Rockwell International/Seal Beach Type: FPIF
Contract Title: QTV Satellite 12
Contract Number: F04701-78-C-0153
Contractor's Estimated Price at Completion: $164.0M
Actual Cost of Work Performed (ACWP) to Date: $136.9M

Variances:

	(a) Baseline SAR Values (31 Oct 82)		(b) Values as of Last UCER		(c) Current Values (31 Jul 84)		(c-a) Change		(c-b) Change	
CV	$-7.7	-12.2%	N/A	N/A	$-22.5	-19.7%	$-14.8	-7.5%	N/A	N/A
SV	$-4.7	-6.9%	N/A	N/A	$-3.3	-2.9%	$+1.4	+4.0%	N/A	N/A

CV = Cumulative Cost Variance SV = Cumulative Schedule Variance
(+) = Favorable (-) = Unfavorable

Cost Variance:

The cumulative cost variance of ($22.5M) is primarily due to the late box deliveries from Autonetic Strategic Systems Division (ASSD) and the rescheduling of vehicle acceptance testing milestones caused by those late box deliveries.

Impact to program: Contract will go to ceiling. Contract is funded to ceiling so no increase in funding is required.

Schedule Variance:

The cumulative schedule variance of ($3.3M) is primarily due to the late delivery of the ASSD boxes (approximately 10 months late).

Impact to program: None.

REPORT AS OF: 30 Sep 84

UNIT COST REPORT

PROGRAM: Navstar GPS

A. PROGRAM ACQUISITION UNIT COSTS (DOLLARS IN MILLIONS)

	31 Dec 82 Baseline	Current Estimate	Current Change
Total Quantity	40	40	Ø
Total Cost in Then-Year $	2,481.9	2,585.1	+103.2
Program Unit Cost in Then-Year $	62.0	64.6	+2.6
Then-Year $ Percentage Change In Unit Cost			+4.19%
Total Cost in Constant FY79 $	1,667.6	1,772.2	+104.6
Program Unit Cost in Constant FY79 $	41.7	44.3	+2.6
Constant FY79 $ Percentage Change In Unit Cost			+6.23%

B. CURRENT FY84 PROCUREMENT UNIT COSTS (DOLLARS IN MILLIONS)

	31 Dec 82 Baseline	Current Estimate	Current Change
FY84 Procurement Quantity	1	1	Ø
FY84 Procurement Cost in			
Then-Year $	238.6	256.1	+17.5
Less Adv Proc	205.2	217.6	-12.4
Plus Adv Proc	4.3	4.7	+0.4
TOTAL	37.7	43.2	+5.5
Procurement Unit Cost in Then-Year $	37.7	43.2	+5.5
Then-Year $ Percentage Change In Unit Cost			+14.59%
FY84 Procurement Cost in			
Constant FY79 $	142.7	153.2	+10.5
Less Adv Proc	122.7	130.1	-7.4
Plus Adv Proc	2.7	3.0	+0.3
TOTAL	22.7	26.1	+3.4
Procurement Unit Cost in Constant FY79 $	22.7	26.1	+3.4
Constant FY79 $ Percentage Change In Unit Cost			+14.98%

ADDENDUM (FOR DoD USE ONLY)

13. Cost-Quantity Information:

a. Baseline (Type)--Development Estimate

b. End Item--Spaceframe *(When applicable, baseline cost-quantity information should be reported for each major end item of equipment represented.)*

c. Cost-Quantity Relationship (Type)--Log-Linear Cumulative Average

d. First Unit Cost--$150 million

e. Slope--85%, B = -0.234465

f. Tabular Data--Spaceframe costs are based on the same cost-quantity relationship as the R&D prototypes, except that the calculation assumes three rather than four prototype units to account for the effects of the production break between R&D and production.

Fiscal Year	Quantity	Flyaway Cost (BY $ in Millions)		Plot Point (X-Axis)
		Nonrecurring*	Recurring	
1987	10	N/A	720.9	10
1988	20	N/A	1111.9	30
1989	40	N/A	1823.8	70
1990	40	N/A	1590.6	110
1991	40	N/A	1460.9	150
Total	150	N/A	6708.1	N/A

**Although not shown in this example, most programs will contain nonrecurring flyaway costs such as rate tooling.*

12. Contract Information: (Dollars in Millions)

a. RDT&E

Spaceframe:	Current Contract Target Price	Qty	PM's Est Price At Completion
Space Vehicle Co., Star City, CA, F99000-82-Z-5555, FPIF, July 1, 1982	$2300.0	4.0	$2600.0

	Cost Variance	Schedule Variance
Previous Cumulative Variances	$-50.0	$-35.0
Cumulative Variances To Date (11/30/84)	$-55.0	$-37.0
Net Change	$-5.0	$-2.0

Explanation of Change: The Space Vehicle Company's unfavorable cost variance is due to increased tooling costs because of a change in the quantity of tools necessary to build the vehicle, increased overhead as a result of a loss in the commercial business base, and increased engineering design costs due to unanticipated problems in the design phase of the wing configuration. The unfavorable schedule variance is due to the late start of sheet metal and conventional machine tool fabrication relating to engineering CDR requirements. The schedule variance has no impact on the contract. The program manager's assessment remains at the ceiling price and is within approved funding.

Engine:	Current Contract Target Price	Qty	PM's Est Price At Completion
Space Engine Co., Space City, CA, F99000-82-Z-5556, FPIF, July 1, 1982	$824.0	24.0	$902.0

	Cost Variance	Schedule Variance
Previous Cumulative Variances	$-3.4	$-24.0
Cumulative Variances To Date (11/30/84)	$-4.0	$-28.0
Net Change	$-0.6	$-4.0

Explanation of Change: Late delivery of hardware items has caused an unfavorable schedule variance at Space Engine Company. Receipt of hardware and operation of the core engine rig are expected to improve the overall schedule position. Cost variance is not significant. The program manager's assessment remains at the ceiling price due to technical risk and is within approved funding.

b. Procurement (When Applicable)

c. MILCON (When Applicable)

10. Cost Variance Analysis (Cont'd):

	(Dollars in Millions) Base-Year $	Then-Year $
o Engineering changes applicable to 10 starfighters since baseline. (Engineering)	(-13.8)	(-26.2)
o Estimating changes applicable to 10 aircraft since baseline. (Schedule)	(-20.8)	(-39.5)
o Initial spares for deleted 10 starfighters. (Support)	(-28.4)	(-50.9)
Schedule acceleration from 35 to 10 starfighters per year to meet earlier IOC. (Schedule)	--	-127.2
(3) MILCON		
Revised Jan 85 economic escalation rates. (Economic)	N/A	+4.3

c. References--SDDM, dated January 30, 1982, subject "SFX-99A Full-Scale Development Approval."

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

PAUC (Initial SAR Est)	Changes (Then-Year Dollars in Millions)								PAUC (Dev Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
104.0	+18.1	-	+4.1	+5.3	+3.1	+3.0	+1.3	+34.9	138.9

b. Current Baseline Estimate to Current Estimate

PAUC (Dev Estimate)	Changes (Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
138 9	+3 7	-2 6	+6 8	+3 4	+4 4	+0 8	-	+16 5	155 4

10. Cost Variance Analysis (Cont'd):

(FY 1984 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	3200.0	11751.4	250.0	15201.4
Previous Changes:				
Quantity	-	+1024.6	-	+1024.6
Schedule	+5.0	-	-	+5.0
Engineering	+11.3	+296.2	+50.0	+357.5
Estimating	-2.7	+443.7	-	+441.0
Other	+0.9	-	-	+0.9
Support	-	+70.5	+35.0	+105.5
Subtotal	+14.5	+1835.0	+85.0	+1934.5
Current Changes				
Quantity	-	-511.3	-	-511.3
Schedule	-	-	-	-
Engineering	-	-13.8	-	-13.8
Estimating	+16.0	-20.8	-	-4.8
Other	-	-	-	-
Support	-	-28.4	-	-28.4
Subtotal	+16.0	-574.3	-	-558.3
Total Changes	+30.5	+1260.7	+85.0	+1376.2
Current Estimate	3230.5	13012.1	335.0	16577.6

b. Current Change Explanations--(*Tabulate SAR variance categories and associated base-year and then-year costs under a specific reason for change, such as congressional actions and threat changes.*)

	(Dollars in Millions) Base-Year $	Then-Year $
(1) RDT&E		
Revised Jan 85 economic escalation rates. (Economic)	N/A	+3.0
Congressional direction to demonstrate low altitude attack capability. (Estimating)	+16.0	+18.5
(2) Procurement		
Revised Jan 85 economic escalation rates. (Economic)	N/A	+205.8
Reduction of 1 wing to meet revised starfighter wing force structure.	-574.3	-1051
- Deletion of 10 starfighters. (Quantity)	(-511.3)	(-[illegible])

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. Program Acquisition--			
(1) Cost	25483.3	23004.9	25483.3
(2) Quantity	164	154	164
(3) Unit Cost	155.4	149.4	155.4
b. Current Procurement--	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	N/A	N/A	N/A
Less CY Adv Proc	N/A	N/A	N/A
Plus PY Adv Proc	N/A	N/A	N/A
Net Total	N/A	N/A	N/A
(2) Quantity	N/A	N/A	N/A
(3) Unit Cost	N/A	N/A	N/A

10. Cost Variance Analysis:

a. Summary--(Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	3479.7	17569.0	340.1	21388 8
Previous Changes:				
Economic	+13.2	+374.8	+6.8	+394.8
Quantity	-	+1935.1	-	+1935.1
Schedule	+17.9	+1203.0	+21.4	+1242.3
Engineering	+12.3	+495.2	+73.6	+581.1
Estimating	-2.3	+741.8	-	+739.5
Other	+1.3	-	-	+1.3
Support	-	+124.7	+52.8	+177.5
Subtotal	+42.4	+4874.6	+154.6	+5071.6
Current Changes:				
Economic	+3.0	+205.8	+4.3	+213.1
Quantity	-	-964.9	-	-964.9
Schedule	-	-127.2	-	-127.2
Engineering	-	-26.2	-	-26.2
Estimating	+18.5	-39.5	-	-21.0
Other	-	-	-	-
Support	-	-50 9	-	-50 9
Subtotal	+21 5	1002 9	+4 3	977 1
Total Changes	+63 9	+3871 7	+158 9	+4094 5
Current Estimate	3543 6	21440 7	499 0	25483 3

Program Acquisition Cost (Cont'd):

Fiscal Year Period	Quantity	FY 1984 Constant (Base-Year) $	Current (Then Year) $	Escalation Rate %
Appropriation: Procurement*				
Current&Prior Years	-	-	-	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	70	7265.1	11263.8	N/A
(1987)	-	-	-	-
(1988)	(30)	(1413.6)	(2024.3)	4.8
(1989)	(20)	(2265.5)	(3448.1)	4.8
(1990)	(40)	(3586.0)	(5791.4)	4.8
Balance to Complete	90	5747.0	10176.9	N/A
Subtotal	160	13012.1	21440.7	N/A
Appropriation: MILCON				
Current&Prior Years	-	-	-	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	335.0	499.0	N/A
(1987)	-	-	-	-
(1988)	-	(120.0)	(171.8)	3.8
(1989)	-	(215.0)	(327.2)	3.7
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	-	335.0	499.0	N/A
Total	164	16577.6	25483.3	N/A

*When more than one procurement appropriation is involved, display each separately.

Program Status--

(1) Percent Program Complete: 55.3% (4/12)
Years Funds Appropriated / Total Program Years

(2) Percent Program Cost Appropriated: 84.5% ($2100.8/$2485.5)
Funds Appropriated To Date in Millions / Total Program Funding in Millions

7. Technical/Operational Characteristics:

a. Technical	Development Estimate	Demonstrated Performance	Current Estimate
Maintainability (Manhours/Flying Hr)	3.0	N/A	3.0
Full Mission Capable Rate (%)	85	N/A	85
Sustained Load Factor @ 75K Ft	4.0	N/A	4.0
b. Operational			
Takeoff Climb Gradient (Single Engine, %)	5.0	N/A	5.0
Rate of Climb @ 100K Ft (FPM)	4000	N/A	3900(Ch-1)
Speed @ 100K Ft (Knots)	3500	N/A	3400(Ch-2)

c. Explanation of Changes--(Ch-1) CDR was completed in Dec 84. Model calculations have concluded that the rate of climb has degraded because air vehicle gross weight has increased by 1000 pounds.

(Ch-2) Same as Ch-1.

d. References--SDDM, dated January 30, 1982, subject "SFX-99A Full-Scale Development Approval."

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1984 Constant (Base-Year) $	Current (Then-Year) $	Escalation Rate (%)
Appropriation: RDT&E				
Current&Prior Years	-	2078.1	2166.8	N/A
Budget Year (1986)	-	794.4	927.9	4.6
Balance of FYDP	-	358.0	448.9	N/A
(1987)	-	(328.0)	(409.0)	4.3
(1988)	-	(30.0)	(39.9)	4.0
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	40	3230.5	3543.6	N/A

(CLASSIFICATION)

c. Program Highlights (Since Last Report): The critical design review (CDR) for the spaceframe has slipped 3 months from September to December 1984 because anticipated engineering data was delayed due to design problems involving the space engine thrust ratios. This will result in a 3-month delay in the DSARC IIIA milestone and in attaining first flight of the full-scale development (FSD) hardware. No impact on the initial operating capability (IOC) is expected.

During this period, source selection for the space avionics repair shop was completed. Space Vehicle Company was awarded a fixed price incentive firm contract on October 19, 1984.

SEX-100A operational test and evaluation (OT&E) is in the planning phase. Active testing will begin with delivery of the third R&D model, the primary avionics test bed. Test and evaluation accomplishments thus far have provided limited data applicable to OT&E suitability objectives.

The SEX-100A system is expected to satify the mission requirement.

6. Schedule:

a. Milestones	Development Estimate	Current Estimate	
Program Initiated	Jun 77	Jun 77	
DSARC I	Oct 78	Oct 78	
DSARC II	Jan 82	Jan 82	
FSD Contract Award	Mar 82	Mar 82	
Critical Design Review	Sep 84	Dec 84	(Ch-1)
First Flight (FSD Hardware)	Oct 85	Jan 85	(Ch-2)
DSARC IIIA (Limited Prod)	Jan 85	Apr 85	(Ch-3)
First Prod S/C Delivery	Sep 87	Sep 87	
DSARC IIIB (Full Rate Prod)	Oct 86	Oct 87	
IOC (1st Wing Deployed)	Dec 87	Dec 87	

b. Explanation of Changes

(Ch-1) The CDR was completed in Dec 84. This delay was due to insufficient engineering data being available as planned.

(Ch-2) First flight of the FSD hardware was rescheduled to Mar 85 because of the delay in the CDR.

(Ch-3) DSARC IIIA was rescheduled to Mar 85 to accommodate the Dec 84 CDR completion.

c. References--SDDM, dated January 30, 1982, subject "SEX [illegible] Scale Development Approval."

(CLASSIFICATION)

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: (Preferred Name, for example, SFX-100A)

AS OF DATE: (Date, for example, December 31, 1984)

INDEX

1. Designation and Nomenclature (Popular Name): SFX-100A/Advanced Starfighter (Athena)

2. DoD Component: U.S. Air Force

3. Responsible Office and Telephone Number:

Starfighter Program Office
Aeronautical Systems Division
Wright-Patterson AFB, OH

PM: Col B. Rogers
Assigned: June 1, 1982
AUTOVON 555-7827

4. Program Elements:

RDT&E: 64999F, 64000F6
PROCUREMENT: 27999F

(DOWNGRADING INSTRUCTIONS) (THIS PAGE IS UNCLASSIFIED)

(CLASSIFICATION)

APPENDICES

CONTINUED

9. U.S. Congress. Senate. Committee on Armed Services. Department of Defense Authorization for Appropriations for Fiscal Year 1983. Part 1. Hearings . . . 97th Congress, 2nd Session. Washington, D. C.: Government Printing Office, 1982.

10. U.S. Department of Defense. Defense Acquisition Executive Summary. DoD Instruction 7220.32. Washington, D. C., 1984.

11. -----. Selected Acquisition Reports. DoD Instruction 7000.3. Washington, D. C., 1984.

12. -----. Unit Cost Reporting. DoD Instruction 7220.31. Washington D. C., 1983.

Other Sources

13. Thorn, Michael E., Lt Col, USAF. Director of Plans and Management, Comptroller, Headquarters Air Force Systems Command, Andrews Air Force Base, Maryland. Telecon, 21 November 1984.

B. RELATED SOURCES

Books

Anthony, Robert N. and Regina Herzlinger. Management Control in Nonprofit Organizations. Homewood IL: Richard D. Irwin, Inc., 1975.

Chenhall, Robert H., Graeme L. Harrison, and David J. H. Watson (eds.). The Organizational Context of Management Accounting. Marshfield, Mass.: Pitman Publishing Inc., 1981.

Official Publications

U.S. Congress. Congressional Budget Office. A Review of the Department of Defense December 31, 1982 Selected Acquisition Reports (SARs). Washington, D. C., 1983.

REPORT AS OF: 30 Sep 84

UNIT COST REPORT

PROGRAM: Navstar GPS

Cost Variance:

Cumulative negative cost variance increased. Unplanned expenditures for resolution of Receiver Processor hardware and software deficiencies, documentation for requirements of the Integrated Logistics Support, and resolution of Preliminary Service Report Record field test discrepancies (Contractor Deficiency Reports) have contributed to the cost variance.

Impact to Program: Contract has gone over ceiling; however, Governmemt liability is limited to ceiling. No increase in funds required.

Schedule Variance:

Cumulative negative schedule variance increased. The contractor is presently concentrating his resources on supporting the field test phase of Initial Operational Test and Evaluation (IOT&E).

Impact to Program: The contractor's ability to complete IOT&E during the current and available test windows is a continuing concern of the government. The contractor has prioritized his efforts to ensure his ability to demonstrate maximum User Equipment capabilities on the primary and secondary host vehicles.

F. CONTRACTS EXCEEDING THRESHOLDS (DOLLARS IN MILLIONS)

None.

REPORT AS OF: 30 Sep 84

UNIT COST REPORT
PROGRAM: PEACEKEEPER

A. PROGRAM ACQUISITION UNIT COSTS (DOLLARS IN MILLIONS)

	30 Jun 83 Baseline	Current Estimate 1/	Current Change
Total Quantity	243	243	-
Total Cost in Then-Year $	21680.2	21515.7	(164.5)
Program Unit Cost in Then-Year $	89.2	88.5	(0.7)
Then-Year $ Percentage Change in Unit Cost			(0.78)
Total Cost in Constant FY 82 $	16634.9	16545.6	(89.3)
Program Unit Cost in Constant FY 82 $	68.5	68.1	(0.4)
Constant FY 82 $ Percentage Change in Unit Cost			(0.58)

B. CURRENT FY 84 PROCUREMENT UNIT COSTS (DOLLARS IN MILLIONS)

	30 Jun 83 Baseline	Current Estimate	Current Change
FY 84 Procurement Quantity	27	21	(6)
FY 84 Procurement Cost in Then-Year $	2536.0	2157.4	(378.6)
Less Adv Proc	-	-	-
Plus Adv Proc	-	-	-
TOTAL	2536.0	2157.4	(378.6)
Procurement Unit Cost in Then-Year $	93.9	102.7	8.8
Then-Year $ Percentage Change in Unit Cost			9.37
FY 84 Procurement Cost in Constant FY 82 $	2041.9	1735.6	(306.3)
Less Adv Proc	-	-	-
Plus Adv Proc	-	-	-
TOTAL	2041.9	1735.6	(306.3)
Procurement Unit Cost in Constant FY 82 $	75.6	82.6	7.0
Constant FY 82 $ Percentage Change in Unit Cost			9.26

C. UNIT COST CHANGES

Current changes: There have been no changes since the 30 Jun 84 report.

Previous changes:
Program Acquisition Unit Costs have decreased slightly due to reduced costs in the development and military construction areas.

Current FY 84 Procurement Unit Costs have increased due to the buy quantity reduction from 27 to 21 units.

1/ Current estimate is based on Peacekeeper Program Baseline (13 Feb 84).

D. TECHNICAL AND/OR SCHEDULE CHANGES

There have been no changes since the 30 Jun 84 report.

E. CONTRACT INFORMATION (DOLLARS IN MILLIONS) 1/

1. Contractor: Boeing TYPE: CPIF/AF
Contract Title: Basing Operational Support Equipment
Contract Number: F04704-83-C-0047
Contractor Estimated Price at Completion: $578.1M
Actual Cost of Work Performed (ACWP) to Date: $175.2M
Variances:

	(a) Baseline SAR Values As of 30 Apr 84	(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84	(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$ -7.2	- 7.0%	N/A	$ -2.6	- 1.5%	+4.6	+5.5	N/A	
SV	$ -9.3	- 8.3%	N/A	$ -7.1	- 4.0%	+2.2	+4.3	N/A	

(CV - Cumulative Cost Variance) (SV - Cumulative Schedule Variance)

+ = favorable - = unfavorable

(Cum Cost Variance = BCWP - ACWP) (Cost Variance % = $\frac{CV}{BCWP}$)

(Cum Schedule Variance = BCWP - BCWS) (Schedule Variance % = $\frac{SV}{BCWS}$)

The schedule and cost variances have improved due to the completion of detailed planning, resulting in the measurement of work performance at a lower and more accurate work breakdown structure level.

2. Contractor: Rockwell International (Autonetics) TYPE: CPIF
Contract Title: Guidance and Control Follow-on
Contract Number: F04704-82-C-0020
Contractor Estimated Price at Completion: $487.8M
Actual Cost of Work Performed (ACWP) to Date: $122.5M
Variances:

	(a) Baseline SAR Values As of 31 May 83	(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84	(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$ -0.4	- 1.6%	N/A	$ +1.5	+ 1.2%	$ +1.9	+2.8	N/A	
SV	$ -0.5	- 2.0%	N/A	$-13.0	- 9.5%	$-12.5	-7.5	N/A	

The cost variance has improved due to lower overhead rates and favorable year-end (fiscal) adjustments to overhead costs. The schedule variance has deteriorated due to late receipt of missile electronic computer assembly test station and staging connector material, late receipt of the auxiliary processor test station, rework problems with printed circuit boards, late engineering materials, late development of the automated sample data instrumentation system, and late development and material deliveries of factory support equipment.

3. Contractor: Northrop Electronics Division TYPE: CPIF
Contract Title: Inertial Measurement Unit
Contract Number: F04704-83-C-0023
Contractor Estimated Price at Completion: $433.8M
Actual Cost of Work Performed (ACWP) to Date: $139.0M
Variances:

	(a) Baseline SAR Values As of 31 Jan 84		(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84		(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$- 0.5	- 0.7%	N/A	$+ 1.8	+ 1.3%	+ 2.3	+ 2.0	N/A	
SV	$- 5.8	- 7.7%	N/A	$-12.0	- 7.8%	- 6.2	- 0.1	N/A	

The cost variance has improved due to favorable overhead rates, circuit board assemblies that are costing less than planned, lower costs of level of effort tasks in support of inertial measurement unit subassembly, and accounting adjustments related to the implementation of a new automated cost/schedule data tracking system. The schedule variance has deteriorated due to technical problems delaying release of engineering documentation, part shortages, and a large number of engineering changes driven by manufacturing process deficiencies.

4. Contractor: Morton Thiokol TYPE: CPIF
Contract Title: Stage I, Follow-on
Contract Number: F04704-83-C-0001
Contractor Estimated Price at Completion: $308.8M
Actual Cost of Work Performed (ACWP) to Date: $86.5M
Variances:

	(a) Baseline SAR Values As of 30 Nov 83		(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84		(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$+ 0.7	+ 1.9%	N/A	$+ 4.7	+ 5.2%	+ 4.0	+ 3.3	N/A	
SV	$- 5.2	-12.1%	N/A	$- 9.6	- 9.5%	- 4.4	+ 2.6	N/A	

The improvement in cost variance is due to underruns in support areas as well as favorable price variances in nozzle materials and case winding. The schedule variance has deteriorated reflecting slow contract start up and delays in material receipt and subcontract effort.

5. Contractor: Rockwell International (Rocketdyne) TYPE: FPIF/CPIF
Contract Title: Stage IV, Follow-on
Contract Number: F04704-83-C-0004
Contractor Estimated Price at Completion: $300.5M
Actual Cost of Work Performed (ACWP) to Date: $94.3M
Variances:

	(a) Baseline SAR Values As of 31 Jul 84	(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84	(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$- 2.9	- 3.2%	N/A	$- 2.9	- 3.2%	—	--	N/A
SV	$- 6.6	- 6.7%	N/A	$- 6.6	- 6.7%	--	--	N/A

This is the first report on this contract. The unfavorable schedule variance is due to late vendor deliveries and prototype testing of propellant storage assemblies (PSA). The unfavorable cost variance is due to additional labor for quality assurance and manufacturing of the PSA, and additional fabrication efforts on plexiglass tank, tooling, mockups, and frames.

6. Contractor: AVCO TYPE: FPIF
Contract Title: Reentry Vehicle Program
Contract Number: F04704-82-C-0010
Contractor Estimated Price at Completion: $250.6M
Actual Cost of Work Performed (ACWP) to Date: $128.5M
Variances:

	(a) Baseline SAR Values As of 31 Jul 84	(b) Values as of Last UCER As of N/A	(c) Current Values As of 31 Jul 84	(c-a) Change $	(c-a) Change %	(c-b) Change $	(c-b) Change %
CV	$- 5.9	- 4.8%	N/A	$- 5.9	- 4.8%	—	--	N/A
SV	$- 6.0	- 4.7%	N/A	$- 6.0	- 4.7%	—	—	N/A

This is the first report on this contract. The unfavorable schedule variance is due to the late deliveries of composites and rear covers, rework of printed wiring boards, slipped deliveries of aft fairing heat shields, and late receipt of spin generators. The unfavorable cost variance is due to higher manufacturing overhead rates, greater-than-planned costs for build up and test of flight test missile six instrumented reentry vehicles, antenna test failures, rework costs for printed wiring boards, and overruns for composite design activities.

1/ Top 6 contracts based on Target Price as reported in block 8 of the Supplemental Contractor Cost Information (format 3, Defense Acquisition Executive Summary)

F. CONTRACTS EXCEEDING THRESHOLDS (DOLLARS IN MILLIONS)
None.

DEFENSE ACQUISITION EXECUTIVE SUMMARY (RCS: DD-COMP(Q)1429)
PROGRAM: (Preferred Name, such as F-99A)

1. DESIGNATION/NOMENCLATURE (POPULAR NAME):

AS OF DATE: (December 31, 1983)

2. DoD COMPONENT:

3. RESPONSIBLE OFFICE AND TELEPHONE NUMBER:

INDEX

- COVER SHEET (SIMILAR TO SAR)
- USED FOR REPORT IDENTIFICATION, INDEXING, AND SECURITY CLASSIFICATION MARKINGS

PROGRAM AND CONTRACT COST INFORMATION SUMMARY
($ in MILLIONS)

PROGRAM: APPROPRIATION: (for example, RDT&E) AS OF: ④

	(1) CUM BCWS	(2) CUM BCWP	(3) CUM ACWP	(4) % CUM ACWP Budgeted by PM	(5) PMCEPAC Budgeted By PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts	$	$	$	%	$	$
2 Large Active Contracts						
(a) Identification (b) Contract Number (c) Contract Type	$	$	$	%	$	$
(a) Identification (b) Contract Number (c) Contract Type	$	$	$	%	$	$
(a) Identification (b) Contract Number (c) Contract Type	$	$	$	%	$	$
3. Total Small Active Contracts	$	$	$	%	$	$
4. Noncontract Cost	$	$	$	N/A	$ ③	N/A
5. Management Reserves	N/A	N/A	N/A	N/A	$	$
6. Future Cost	N/A	N/A	N/A	N/A	$	N/A
7. Total Appropriation ①	$	$	$	%	$	

1. USED FOR ASSESSMENT OF PROGRAM COST PERFORMANCE AT THE APPROPRIATION LEVEL.

2. PROVIDES NECESSARY LINK BETWEEN CONTRACT AND PROGRAM LEVEL ANALYSES.

3. TRACKS TO APPROPRIATION LEVEL CURRENT ESTIMATE IN SAR.

4. ALLOWS INDEPENDENT ASSESSMENT OF REALISM OF REPORTED PROGRESS.

- VERY SIMILAR TO FORMER SUPPLEMENTAL CONTRACTOR COST REPORT (SCCR)
- PROVIDES CONTRACT COST PERFORMANCE DATA
- USED TO ESTIMATE CONTRACT COST AT COMPLETION
- SUPPORTS BPWS, BPWP, APWP DATA SHOWN ON FORMAT 2

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1 PROGRAM	2 IDENTIFICATION TOTAL QTY _____ DELIVERED QTY _____	3 PROGRAM PHASE DEV ____ PROD ____

CONTRACT INFORMATION

4 CONTRACTOR (NAME AND LOCATION)			6 NEGOTIATED COST	9 WORK START DATE (YYMMDD)
			7 AUTHORIZED UNPRICED WORK	10 SIG PFP COMPL DATE (YYMMDD)
5a CONTRACT NUMBER	5b DEFN DATE (YYMMDD)	5c CONTRACT TYPE	8 TARGET PRICE CEILING PRICE	

PERFORMANCE DATA

LEAVE BLANK		11 REPORT DATE (YYMMDD)		12 SOURCE DOCUMENT CPR _____ CSSR _____ OTHER _____		13 VERIFICATION OF DATA REVIEW TYPE REVIEW DATE		
14 BCWS	15 BCWP	16 ACWP	17 MR	18 CONTR BUDGET BASE	19 TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21 PM's EST COST	22 EST COMPL DATE (YYMMDD)

23 VARIANCE ANALYSIS

24 OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

- PROVIDES KEY TECHNICAL AND PROGRAM EXECUTION SCHEDULE MILESTONES
- KEEPS OSD STAFF AWARE OF IMPORTANT "UP-COMING" MILESTONE EVENTS AND SCHEDULE CHANGES
- REQUIRED FOR INDEPENDENT ASSESSMENT OF TOTAL PROGRAM PROGRESS
- PROVIDES BETTER ASSESSMENT OF PROGRAM SCHEDULE PERFORMANCE THAN ARTIFICIAL SCHEDULE VARIANCES (BPWP-BPWS OR BCWP-BCWS) COMPUTED FROM DATA ON FORMATS 2 AND 3

PROGRAM SCHEDULE MILESTONES

PROGRAM: AS OF:

	(1) MILESTONES	(2) INITIAL PLAN	(3) CURRENT ESTIMATE
1. PROGRAM MILESTONES			
	(list milestones)	MMYY	MMYY
2. RDT&E CONTRACT MILESTONES			
a. IDENTIFICATION: CONTRACT #:			
	(list milestones)	MMYY	MMYY
b. IDENTIFICATION: CONTRACT #:			
	(list milestones)	MMYY	MMYY
3. RDT&E NONCONTRACT MILESTONES			
	(list milestones)	MMYY	MMYY
4. PROCUREMENT CONTRACT MILESTONES			
a. IDENTIFICATION: CONTRACT #:			
	(list milestones)	MMYY	MMYY
b. IDENTIFICATION: CONTRACT #:			
	(list milestones)	MMYY	MMYY
5. PROCUREMENT NONCONTRACT MILESTONES			
	(list milestones)	MMYY	MMYY

PROGRAM FUNDING SUMMARY
($ in MILLIONS)

PROGRAM

AS OF DATE:
BASE-YEAR:

FISCAL YEAR	QTY	BASE-YEAR DOLLARS ADV PROC (NONADD)	FLYAWAY (NONADD) NONREC	REC	TOTAL	THEN-YEAR DOLLARS ADV PROC (NONADD)	TOTAL	ESCALATION RATE
APPROPRIATION: RDT&E								
FY	#			$	$		$	#
--								
--								
--								
--								
FY	#			$	$		$	#
TOTAL	#			$	$		$	
APPROPRIATION: PROCUREMENT								
FY	#	$	$	$	$	$	$	#
--								
--								
--								
--								
--								
FY	#	$	$	$	$	$	$	#
TOTAL	#	$	$	$	$	$	$	
APPROPRIATION: CONSTRUCTION								
FY	#				$		$	#
--								
--								
--								
--								
--								
FY	#				$		$	#
TOTAL	#				$		$	

- SHOWS PRESIDENT'S BUDGET (PB) AND UPDATES TO MATCH SAR, POM, AND BUDGET SUBMIT (BS) - QTY/FUNDING DATA
- ALLOWS COMPARISON OF PB TO POM, POM TO BS, ETC. SUPPORTS POM AND BS REVIEW CYCLES
- ALLOWS IDENTIFICATION OF PLANNED UNIT COST THRESHOLD BREACHES
- ALLOWS ANALYSIS OF FLYAWAY COST-QUANTITY TRENDS AND CHANGES

- PROVIDES OVERALL QUALITATIVE ASSESSMENT OF KEY PROGRAM PERFORMANCE INDICATORS
- ALLOWS PM/SERVICE HQDS COMMAND TO HIGHLIGHT ISSUES REQUIRING OSD LEVEL ATTENTION
- PROVIDES MOST RECENT PM'S AND INDEPENDENT COST ESTIMATE DATA
- IDENTIFIES PROGRAMS WHERE LATEST COST ESTIMATES DIFFER SIGNIFICANTLY FROM CURRENT SAR PROGRAM
- IDENTIFIES PROGRAMS WITH OLD COST ESTIMATES

PROGRAM ASSESSMENT

INDICATOR	ASSESSMENT
Overall System Performance	S
Operational/Technical Characteristics:	
(specify)	MI
(specify)	S
(specify)	S
Key Decisions	S
Funding	S
Schedule	MI
Contracts	MI
Cost Performance	MI
Test and Evaluation	S
Design-to-Cost	S
Production Readiness	S
Logistics	S
Manpower	M

PROGRAM COST ESTIMATES
($ in MILLIONS)

	Independent Cost Estimate	Program Manager's Cost Estimate
Estimate Date:		
RDT&E Constant-FY__ $:		
Then-Year $:		
Quantity:		
Procurement Constant-FY__ $:		
Then-Year $:		
Quantity:		

- PROVIDES MAJOR END ITEM DELIVERIES INFORMATION
- NEAR TERM DELIVERIES STATUS USEFUL FOR SCHEDULE ASSESSMENT
- OUT YEAR DELIVERY PLANS FOCUS ATTENTION ON APPROPRIATE BUILD-UP RATES, ECONOMICAL PRODUCTION RATES, LONG LEAD PLANNING
- SHOULD SUPPORT QUANTITY/FUNDING DATA ON FORMAT 5

MAJOR END ITEM DELIVERIES

	RDT&E				PROCUREMENT			
PAST FYs	PLANNED	ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE	PLANNED	ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE
FY__								
FY__								
FY__								
CURRENT FY								
1st Qtr								
2nd Qtr								
3rd Qtr								
4th Qtr								
NEXT FY								
1st Qtr								
2nd Qtr								
3rd Qtr								
4th Qtr								
FUTURE FYs								
FY__								
FY__								
FY__								
FY__								

PROGRAM VARIANCE ANALYSIS

- BRIEF SUMMARY OF SIGNIFICANT PROGRAM PROBLEM AREAS
- DO NOT DUPLICATE FORMAT 3 CONTRACT VARIANCE EXPLANATIONS
  - CONTRACT EFFORT
- SCHEDULE MILESTONE SLIPS THAT IMPACT THE PROGRAM
- UNFAVORABLE CHANGES IN KEY PROGRAM INDICATORS
- STATUS OF CORRECTIVE ACTIONS FOR MARGINAL OR UNSATISFACTORY ASSESSMENTS
- PLANNED COST ESTIMATE UPDATES
- KEEP IT SHORT AND TO THE POINT

DEFENSE ACQUISITION EXECUTIVE SUMMARY (RCS: DD-COMP (Q)1429)
PROGRAM: Navstar GPS

AS OF DATE: Sep 30, 1984

1. DESIGNATION/NOMENCLATURE (POPULAR NAME): Navstar GPS/Navstar Global Positioning System (Navstar)

2. DOD COMPONENT: U.S. Air Force

3. RESPONSIBLE OFFICE AND TELEPHONE NUMBER:

Navstar GPS Joint Program Office
Headquarters Space Division
P.O. Box 92960
Worldway Postal Center
Los Angeles, CA 90009

Program Manager: Colonel John P. Porter
AV 833 Area Code 213
643-1526

DAES Focal Point: Donald L. Seal
AV 833 Area Code 213
643-2010

INDEX

DEFENSE ACQUISITION EXECUTIVE SUMMARY

PROGRAM: Navstar GPS AS OF: Sep 30, 1984

PROGRAM COST ESTIMATES
($ in MILLIONS)

	Independent Cost Estimate	Program Manager's Cost Estimate
Estimate Date :	821104	840930
RDT&E Constant-FY $:	926.3	1102.6
Then-Year $:	1172.5	1390.1
Quantity :	12	12
Procurement Constant-FY $:	631.8	665.0
Then-Year $:	1134.2	1187.7
Quantity :	28	28

MAJOR END ITEM DELIVERIES

	RDT&E				PROCUREMENT			
PAST FYs	PLANNED	ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE	PLANNED	ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE
FY78	3	3	3	3				
FY79	1	1	4	4				
FY80	2	2	6	6				
FY82	1	1	7	7				
FY83	1	1	8	8				
CURRENT FY								
1st Qtr								
2nd Qtr	1	1	9	9				
3rd Qtr	1	1	10	10				
4th Qtr								
NEXT FY								
1st Qtr								
2nd Qtr	1	1	11	11				
3rd Qtr								
4th Qtr	1	1	12	12				
FUTURE FYs								
FY86					7	7	7	7
FY87					9	9	16	16
FY88					9	9	25	25
FY89					3	3	28	28

Navstar GPS, Format 6, page 15.

DEFENSE ACQUISITION EXECUTIVE SUMMARY

PROGRAM: Navstar GPS AS OF: Sep 30, 1984

PROGRAM ASSESSMENT

INDICATOR	ASSESSMENT
Overall System Performance	S
Operational/Technical Characteristics	
Operational	
1. 3-D Position Accuracy of User Equipment Spherical Error Probable (SEP)	S
2. Block II Satellite Mean Mission Duration	S
3. System Availability	S
4. Anti-Jam Margin User Equipment While Signal Tracking	S
5. Time Required to Change Degradation Level of Clear Acquisition Signal	S
Technical	
1. Expected Ground Power (End of Life)	S
2. Cesium Clock Stability	S
3. Time Transfer (Universal Coordinated Time)	S
4. User Equipment Reliability Mean Time Between Maintenance	S
5. User Equipment Maintainability Manhours to Repair	S
[illegible]	S
[illegible]	S
[illegible]	M
[illegible]	S
[illegible]	M
[illegible]	S
[illegible]	S
[illegible]	S
[illegible]	MI
[illegible]	S

[illegible] GPS, Format 5, page 14.

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM FUNDING SUMMARY

PROGRAM: Navstar GPS

AS OF DATE: Sep 30, 1984
BASE YEAR: FY 1979

CURRENT ESTIMATE
($ in MILLIONS)

	BASE-YEAR DOLLARS						THEN-YEAR DOLLARS	
		FLYAWAY (NON-ADD)			ADV-PROC (NON-ADD)			
FISCAL YEAR	QTY	NON-REC	REC	TOTAL	DEBIT	CREDIT	TOTAL	ESCALATION RATE (%)A/
				APPROPRIATION: PROCUREMENT, MISSILE				
1982	-	-	0.7	13.3	19.0	-	20.1	9.6
1983	-	-	0.0	70.3	111.5	-	111.5	9.0
1984	1	-	24.2	153.2	217.6	4.7	256.1	5.6
1985	6	-	119.2	187.4	183.0	76.3	332.3	6.4
1986	9	-	184.7	121.6	22.6	154.6	227.2	6.0
1987	8	-	168.3	69.4	-	195.3	136.3	5.6
1988	4	-	98.2	34.6	-	122.8	71.3	5.2
1989	-	-	15.2	15.2	-	-	32.9	4.8
TOTAL	28	-	610.5	665.0	553.7	553.7	1187.7	
				APPROPRIATION: CONSTRUCTION				
1984	-	-	-	4.6	-	-	7.3	4.3
TOTAL	-	-	-	4.6	-	-	7.3	

A/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

Navstar GPS, Format 5, page 13.

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM FUNDING SUMMARY

PROGRAM: Navstar GPS

AS OF DATE: Sep 30, 1984
BASE YEAR: FY 1979

CURRENT ESTIMATE
($ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS FLYAWAY (NON-ADD) NON-REC	REC	TOTAL	ADV-PROC (NON-ADD) DEBIT	CREDIT	THEN-YEAR DOLLARS TOTAL	ESCALATION RATE (%)A/
			APPROPRIATION: RDT&E					
1974	-	-	-	10.8	-	-	7.4	-
1975	-	-	-	31.9	-	-	23.9	6.6
1976	-	-	-	91.7	-	-	74.8	6.8
1976T	-	-	-	15.1	-	-	13.3	6.4
1977	-	-	-	71.8	-	-	64.0	1.1
1978	-	-	-	70.2	-	-	67.0	6.3
1979	-	-	-	72.8	-	-	75.6	8.4
1980	-	-	-	118.0	-	-	136.3	9.4
1981	-	-	-	98.0	-	-	125.2	11.9
1982	-	-	-	120.6	-	-	165.4	9.2
1983	-	-	-	85.3	-	-	122.2	5.0
1984	-	-	-	82.6	-	-	123.4	4.3
1985	-	-	-	66.0	-	-	103.5	4.9
1986	-	-	-	70.7	-	-	115.8	4.6
1987	-	-	-	30.8	-	-	52.5	4.3
1988	-	-	-	31.3	-	-	55.5	4.0
1989	-	-	-	35.0	-	-	64.3	3.7
TOTAL	12	- B/	- B/	1102.6	-	-	1390.1	

A/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

B/ Not available.

Navstar GPS, Format 5, page 12.

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM SCHEDULE MILESTONES

PROGRAM: Navstar GPS AS OF: Sep 30, 1984

	(1) Milestones		(2) Initial Plan	(3) Current Estimate
1.	PROGRAM MILESTONES			
	a. Space Segment	First Launch Ready Satellite	0485	0886
	b. Control Segment	Operational Control Segment (FOC)	1187	1187
	c. User Segment	Begin DT&E/IOT&E	0183	0884
		Complete DT&E/IOT&E	0883	1284
		First Production Contract Awards	0184	0185
	d. Program	DSARC III	0983	0185
		Three Dimensional Capability	1287	1288
2.	RDT&E CONTRACT MILESTONES			
	a. IBM F04701-80-C-0011			
		Operational Control Segment (FOC)	1187	1187
	b. Rockwell International/Collins F04701-79-C-0083			
		Begin DT&E/IOT&E	0183	0884
		Complete DT&E/IOT&E	0883	1284
	c. Magnavox F04701-79-C-0085			
		Begin DT&E/IOT&E	0183	0884
		Complete DT&E/IOT&E	0883	1284
3.	RDT&E NONCONTRACT MILESTONES			
	DSARC III		0983	0185
4.	PROCUREMENT CONTRACT MILESTONES			
	a. Rockwell International F04701-83-C-0031			
		First Launch Ready Satellite	0485	0886
		Three Dimensional Capability	1287	1288
5.	PROCUREMENT NONCONTRACT MILESTONES			
		First Production Contract Awards For User Equipment	0184	0185

Navstar GPS, Format 4, page 11.

Cost Variance

Cumulative negative cost variance increased. Unplanned expenditures for resolution of Receiver Processor hardware and software deficiencies, documentation for requirements of the Integrated Logistics Support, and resolution of Preliminary Service Report Record field test discrepancies (Contractor Deficiency Reports) have contributed to the cost variance.

Impact to program: Contract has gone over ceiling; however, Government liability is limited to ceiling. No increase in funds required.

Over Target Baseline:

A performance measurement baseline in excess of cost of authorized work was approved on 24 Sep 82. This change was approved by Mr. Charles R. Willett, Contracting Officer, Directorate of Space Navigation Systems Contracts. This was the first change to the baseline in excess of target cost. The baseline change involved adding budget to eliminate the cost variance, rescheduling the remaining work to eliminate the schedule variance, and adding additional budget to complete the remaining work. The effect on the Cost Performance Report was to eliminate both the existing cost and schedule variances. Increase in total allocated budget due to $0.6M ECP put on contract for Flexible Modular Interface and User changes study effort.

Significant Effort Completion Data:

Estimated date of completion for IOT&E slipped due to technical problems: Contractors underscoped complexity of effort; hardware/software development and integration problems; inplant/field testing, support equipment, and documentation delays.

Program Manager's Estimated Cost:

EAC increased due to an evaluation by the Project Office working with the DCAS contract monitor based on the contractor's prior cumulative efficiency index.

Estimated Completion Date:

Contract Mod extends contract.

NOTE: Formulas for converting cost performance data to price performance data are

$$\text{Cum BPWP} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWP}$$

$$\text{Cum BPWS} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWS}$$

SYSTEM IDENTIFICATION

PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
Navstar Global Positioning System	User Equipment FSD TOTAL QTY 55 DELIVERED QTY	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Magnavox Government & Industrial Electronics Co. Torrance, CA	$69.0M	790720
	7. AUTHORIZED, UNPRICED WORK 0	10. SIG EFF COMPL DATE (YYMMDD)

5.a. CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c. CONTRACT TYPE	8. TARGET PRICE	
			$75.5M	841231
F04701-79-C-0085	790720	FPIF	CEILING PRICE $83.4M	

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840731	CPR X CSSR OTHER	REVIEW TYPE C/SCS Surveillance REVIEW DATE 840528

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$88.4M	$85.4M	$93.2M	0	$69.0M	$91.7M	$96.3M	$99.0M	850731

23. VARIANCE ANALYSIS

Schedule Variance (BCWP - BCWS) = $85.4M - $88.4M = ($3.0M)
Cost Variance (BCWP - ACWP) = $85.4M - $93.2M = ($7.8M)

Schedule Variance

Schedule variance improved $0.7M from last quarter. The contractor is presently concentrating his resources on supporting the field test phase of Initial Operational Test and Evaluation (IOT&E).

Impact to program: The contractor's ability to complete Development Test and Evaluation (DT&E) and IOT&E during the current and available test windows is a continuing concern of the government. The contractor has prioritized his efforts to ensure his ability to demonstrate maximum User Equipment capabilities on the primary and secondary host vehicles.

OVER TARGET BASELINE

IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING:

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHEDULE VARIANCE ADJUSTMENT
820924	$13.6M	$6.7M

Navstar SPO, Format 3, page 9.

Impact to program: Contract will go over ceiling; however, Government liability is limited to ceiling. No increase in funds required.

Program Manager's Estimated Cost

The Government's EAC decreased from the prior reporting period due to an EAC update performed in conjunction with the Defense Contract Administrative Services representative.

Significant Effort Completion Date

Estimated date of completion for IOT&E slipped due to technical problems: Contractors underscoped complexity of effort; hardware/software development and integration problems; inplant/field testing, support equipment, and documentation delays.

Estimated Completion Date

Contract Mod extends contract.

Ceiling Price

Last engineering change added for $0.7M as a separate contract line item to the contract with no change in ceiling price. Contract total price will be $88.4M.

NOTE: Formulas for converting cost performance data to price performance data are

$$\text{Cum BPWP} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWP}$$

$$\text{Cum BPWS} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWS}$$

SYSTEM IDENTIFICATION

PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
Navstar Global Positioning System	User Equipment FSD TOTAL QTY 55 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Rockwell International Collins Government Avionics Division Cedar Rapids, IA	$73.1M	790702
	7. AUTHORIZED UNPRICED WORK 0	10. SIG EFF COMPL DATE (YYMMDD)

5.a. CONTRACT NUMBER	5.b. DEFN DATE (YYMMDD)	5.c. CONTRACT TYPE	8. TARGET PRICE $80.0M	841231
F04701-79-C-0083	790720	FPIF	CEILING PRICE $87.7M	

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840731	CPR X C/SSR OTHER	REVIEW TYPE CSCS Surveilliance REVIEW DATE 840528

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$70.1M	$68.1M	$83.3M	0	$73.1M	$73.1M	$88.4M	$90.0M	850731

VARIANCE ANALYSIS

Schedule Variance (BCWP - BCWS) = $68.1M - $70.1M = ($2.0M)
Cost Variance (BCWP - ACWP) = $68.1M - $83.3M = ($15.2M)

Schedule Variance:

Schedule variance improved by $0.9M from last quarter. The schedule efficiency was favorably affected by the final performance claim on several of the antenna components cost accounts.

Impact to program: None.

Cost Variance:

The functional category of engineering is primarily responsible for the low cost efficiency cumulative negative cost variance. The WBS element of Set Test was the most significant factor this reporting period. The software efforts of preliminary qualification test and performance qualification test coupled with the hardware environmental qualification, electromagnetic interference and combined environmental reliability testing efforts account for the major Set Test expenditures this period.

OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING:

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

Cost Variance

The cumulative cost variance has improved by $2.8M during the last quarter. The major reason for this improvement is a delay in billings for completed integration for which BCWP has been taken. The cumulative cost variance of ($22.5M) is primarily due to the late box deliveries from ASSD and the rescheduling of vehicle acceptance testing milestones caused by those late box deliveries.

Impact to program: Contract will go to ceiling. Contract is funded to ceiling so no increase in funding is required.

Contract Budget Base

The change of $.2M was due to a increase in cost of W-Sensor/Survivability effort. The JPO received a "firm price" proposal this quarter that replaced a "not to exceed" of last quarter with the resultant $.2M increase to the cost while at the same time their profit decreased.

NOTE: Formulas for converting cost performance data to price performance data are

$$\text{Cum BPWP} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWP}$$

$$\text{Cum BPWS} = \frac{\text{APWP}}{\text{ACWP}} \times \text{BCWS}$$

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
Navstar Global Positioning System	Qualification Test Vehicle TOTAL QTY 1 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	5.a. CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c. CONTRACT TYPE	6. NEGOTIATED COST	7. AUTHORIZED UNPRICED WORK	8. TARGET PRICE	9. WORK START DATE (YYMMDD)	10. SIG EFF COMPL DATE (YYMMDD)
Rockwell International Seal Beach, CA	F04701-78-C-0153	801222	FPIF	$115.7M	$14.8M	$144.8M CEILING PRICE $164.2M	801116	850930

PERFORMANCE DATA

11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
840731	CPR X C/SSR OTHER	REVIEW TYPE C/SCS Surveillance REVIEW DATE 840705

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$117.7M	$114.4M	$136.9M	$1.0M	$130.5M	$130.5M	$160.1M	$164.2M	851130

23. VARIANCE ANALYSIS

Schedule Variance (BCWP - BCWS) = $114.4M - $117.7M = ($3.3M)
Cost Variance (BCWP - ACWP) = $114.4M - $136.9M = ($22.5M)

Schedule Variance

The net change in schedule variance of ($0.7M) from last quarter is primarily due to the rescheduli of vehicle acceptance testing milestones scheduled during this period as a result of late box deliveries. Autonetic Strategic Systems Division (ASSD) has delivered all boxes, but the Navigatio Data Unit (NDU) and Rubidium Frequency Distribution Unit (RFDU) were diagnosed as having anomalies and were returned to ASSD for rework/retest. Also contributing to the last quarter schedule variance are milestones which have not been met due to engineerings inability to staff thescheduled manpower loads. The cumulative schedule variance of ($3.3M) is primarily due to the late delivery of the ASSD boxes (approximately 10 months late).

Impact to program - None.

Note: Format 2, columns 5 and 6, show recently increased ceiling price. The ceiling price shown on Format 3 will be increased next submission.

OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING:

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHDEULE VARIANCE ADJUSTMENT

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM AND CONTRACT COST INFORMATION SUMMARY
($ in MILLIONS)

AS OF Sep 30, 1994

PROGRAM: Navstar GPS APPROPRIATION: Military Construction

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % PMCEPAC Budgeted By PM	(5) PMCEPAC Budgeted By PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts						
2. Large Active Contracts						
3. Total Small Active Contracts	1.1	1.1	1.1	100.0%	7.3	0
4. Noncontract Cost						
5. Management Reserves	N/A	N/A	N/A	N/A		
6. Future Cost	N/A	N/A	N/A	N/A		N/A
7. Total Appropriation	1.1	1.1	1.1	100.0%	7.3	0

Navstar GPS, Format 2, page 4.

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM AND CONTRACT COST INFORMATION SUMMARY
($ in MILLIONS)

AS OF Sep 30, 1984

PROGRAM: Navstar GPS

APPROPRIATION: Procurement, Missile

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % PMCEPAC Budgeted By PM	(5) PMCEPAC Budgeted By PM	(5) PMCEPAC Other Sources	(6)
1. Total Completed Contracts	0	0	0	-	0	0	
2. Large Active Contracts							
(a) Rockwell International (b) F04701-83-C-0031 (c) FFP	194.9	194.9	194.9	86.1%	1039.2	167.7	
3. Total Small Active Contracts	4.8	4.8	4.8	100.0%	4.8	0	
4. Noncontract Cost	0.5	0.5	0.5	100.0%	0.5	N/A	
5. Management Reserves	N/A	N/A	N/A	N/A	0	0	
6. Future Cost	N/A	N/A	N/A	N/A	143.2	N/A	
7. Total Appropriation	200.2	200.2	200.2	86.5%	1187.7	167.7	

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM AND CONTRACT COST INFORMATION SUMMARY
($ in MILLIONS)

AS OF Sep 30, 1984

PROGRAM: Navstar GPS

APPROPRIATION: RDT&E

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % PMCEPAC Budgeted By PM	(5) PMCEPAC Budgeted By PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts	534.2	533.8	534.2	100.0%	534.2	0
2. Large Active Contracts						
(a) Rockwell International (b) F04701-78-C-0153 (c) FPIF	121.6	118.2	141.4	76.9%	148.9	44.7
(a) Rockwell International/Collins (b) F04701-79-C-0083 (c) FPIF	73.7	71.6	87.7	43.9%	38.8	49.6
(a) Magnavox (b) F04701-79-C-0085 (c) FPIF	83.4	83.4	83.4	39.7%	33.1	50.3
(a) IBM (b) F04701-80-C-0011 (c) FFP	93.5	93.5	93.5	94.3%	183.3	11.0
(a) Aerospace Corp (b) F04701-83-C-0084 (c) FFP, LOE	35.5	35.5	35.5	100.0%	35.5	0
3. Total Small Active Contracts	16.5	16.0	15.8	100.0%	16.5	0
4. Noncontract Cost	77.0	77.0	77.0	100.0%	77.0	N/A
5. Management Reserves	N/A	N/A	N/A	N/A	0	0
6. Future Cost	N/A	N/A	N/A	N/A	322.8	N/A
7. Total Appropriation	1,035.4	1,029.0	1,068.5	82.2%	1,390.1	155.6

Navstar GPS, Format 2, page 2.

DEFENSE ACQUISITION EXECUTIVE SUMMARY
PROGRAM VARIANCE ANALYSIS

PROGRAM: Navstar GPS AS OF: Dec 30, 1984

Format 2, page 1

Noncontract Cost: Total budgeted by PM revised from $83.5M to $ 77.0M reflecting fall out of dollars from other activities. Funds were then obligated for survivability efforts during 4th quarter on Rockwell International contract.

Total appropriation-Other sources: Balance of FY84 funds obligated as shown on contract lines.

Format 6, page 14

Schedule, Marginal - Contractors continue to have technical problems with the User Equipment that affect their ability to support present IOT&E schedules.

Cost Performance, Marginal - Technical problems have forced the contractors to use additional unplanned resources to resolve these problems.

Logistics, Marginal Improving - Logistics Support Analysis Records as submitted to the Air Force are marginal. These support the technical manuals that will be used in the field to support government IOT&E.

Navstar GPS, Format 7, page 16.

DEFENSE ACQUISITION EXECUTIVE SUMMARY (RCS: DD-COMP(Q)1429)
PROGRAM: LGM-118A PEACEKEEPER

AS OF DATE: 30 Sep 1984

1. DESIGNATION/NOMENCLATURE
LGM-118A/Land Based ICBM

2. DoD COMPONENT
US Air Force

3. RESPONSIBLE OFFICE AND TELEPHONE NUMBER

Commander Ballistic Missile Office	AV 876 Area Code 714 382-6014	Major General A.G. Casey Assigned 19 May 1982
DAES Focal Point Comptroller	AV 876 Area Code 714 382-6637	Colonel L.R. Vernamonti Assigned 25 Jul 1984

INDEX

PROGRAM AND CONTRACT COST INFORMATION SECTION
($ in MILLIONS)

AS OF: 30 Sep 1984

PROGRAM: Peacekeeper APPROPRIATION: 3600

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % CUM APWP Budgeted by PM	(5) PMCEPAC Budgeted by PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts	1493.5	1539.8	1591.7	100%	1650.5	0
2. Large Active Contracts						
(a) Stage II Follow-on (b) F04704-83-C-0002 (c) FPIF	84.3	77.6	77.5	100%	244.7	0
(a) Guidance and Control Follow-on (b) F04704-82-C-0020 (c) CPIF	149.3	135.1	133.5	100%	475.4	0
(a) Reentry Vehicle Program (b) F04704-82-C-0010 (c) FPIF	119.6	115.3	123.9	100%	226.4	0
(a) MK-21 Fuze (b) F04704-82-C-0018 (c) FPIF	104.3	98.6	106.6	100%	168.8	0
(a) Stage III Follow-on (b) F04704-83-C-0003 (c) FPIF	75.8	73.5	66.8	100%	185.8	0

PROGRAM AND CONTRACT COST INFORMATION SECTION
($ in MILLIONS)

AS OF: 30 Sep 1984

PROGRAM: Peacekeeper

APPROPRIATION: 3600

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % CUM APWP Budgeted by PM	(5) PMCEPAC Budgeted by PM	(6) PMCEPAC Other Sources
2. Large Active Contracts (continued)						
(a) Specific Force Integrating Receiver Follow-on (b) F04704-82-C-0006 (c) FPIF	31.7	31.5	31.5	100%	39.7	0
(a) Third Generation Gyro Second Source (b) F04704-81-C-0014 (c) FPIF	11.7	11.9	12.5	100%	16.2	0
(a) Inertial Measurement Unit Follow-on (b) F04704-83-C-0023 (c) CPIF dH	166.2	153.1	151.2	100%	436.8	0
(a) Third Generation Gyro Follow-on (b) F04704-82-C-0007 (c) FPIF	42.1	38.6	38.7	100%	55.1	0
(a) Launch Control Systems (b) F04704-83-C-0032 (c) FPIF	69.7	64.8	66.6	100%	253.2	0

PROGRAM AND CONTRACT COST INFORMATION SECTION
($ in MILLIONS)

AS OF: 30 Sep 1984

PROGRAM: Peacekeeper APPROPRIATION: 3600

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % CUM APWP Budgeted by PM	(5) PMCEPAC Budgeted by PM	(6) PMCEPAC Other Sources
2. Large Active Contracts (continued)						
(a) Stage IV Follow-on (b) F04704-83-C-0004 (c) FPIF/CPIF	109.0	101.7	104.9	100%	296.7	0
(a) Stage I Follow-on (b) F04704-83-C-0001 (c) FPIF	112.8	102.1	96.8	100%	309.7	0
(a) Canister Development (b) F04704-82-C-0017 (c) CPIF	59.2	54.6	57.5	100%	218.7	0
(a) Reentry System Follow-on (b) F04704-84-C-0002 (c) FPIF	17.6	15.9	16.5	100%	92.4	0
(a) Basing Operational Support Equipment (b) F04704-83-C-0047 (c) CPIF/AF	196.1	188.4	191.2	100%	559.6	0
3. Total Small Active Contracts	85.1	84.6	83.4	100%	153.0	0
4. Noncontract Cost	140.0	140.0	140.0	100%	248.0	0
5. Management Reserves	N/A	N/A	N/A	N/A	163.8	0
6. Future Cost	N/A	N/A	N/A	N/A	1016.1	0
7. Total Appropriation	3058.0	3027.1	3090.8	100%	6810.6	0

PROGRAM AND CONTRACT COST INFORMATION SECTION
($ in MILLIONS)

AS OF: 30 Sep 1984

PROGRAM: Peacekeeper APPROPRIATION: 3020

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % CUM APWP Budgeted by PM	(5) PMCEPAC Budgeted by PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts None at this time						
2. Large Active Contracts None reportable at this time						
3. Total Small Active Contracts	12.2	12.2	12.2	100%	14.6	0
4. Noncontract Cost	3.0	3.0	3.0	100%	9.8	0
5. Management Reserves	N/A	N/A	N/A	N/A	0	0
6. Future Cost	N/A	N/A	N/A	N/A	14360.2	0
7. Total Appropriation	15.2	15.2	15.2	100%	14384.6	0

PROGRAM AND CONTRACT COST INFORMATION SECTION
($ in MILLIONS)

AS OF: 30 Sep 1984

PROGRAM: Peacekeeper APPROPRIATION: 3300

	(1) CUM BPWS	(2) CUM BPWP	(3) CUM APWP	(4) % CUM APWP Budgeted by PM	(5) PMCEPAC Budgeted by PM	(6) PMCEPAC Other Sources
1. Total Completed Contracts	0.1	0.1	0.1	100%	0.1	0
2. Large Active Contracts None at this time						
3. Total Small Active Contracts	1.5	1.6	1.6	100%	20.1	0
4. Noncontract Cost	.1	.1	.1	100%	1.4	0
5. Management Reserves	N/A	N/A	N/A	N/A	3.8	0
6. Future Cost	N/A	N/A	N/A	N/A	295.1	0
7. Total Appropriation	1.7	1.8	1.8	100%	320.5	0

NOTES FOR FORMAT 2:

1. PMCEPAC for active contracts includes all definitized work, authorized unpriced work, and anticipated overrun/underrun; does not include anticipated additional work (e.g., Change Proposals) or management reserve.

2. Noncontract Cost: Does not include management reserve.

3. Management Reserves: Includes management reserve for active contracts and noncontracts only; does not include management reserve for future add-on work for current contracts, future work for new contracts, or future noncontract work.

4. Future Cost: Includes all future add-on work to current contracts plus management reserve for such add-on work, all future contracts plus management reserve for such future contracts, and all future noncontract work plus management reserve for such noncontract work.

5. All data are current as of end-of-accounting-month July 84 (i.e., some contractor's have cut-off dates in late July, others in early August).

6. Contracts over $20.0M are separately listed as "Large Active Contracts". When they become more than 90% complete, they will transition to "Total Completed Contracts."

7. Contract prices shown in Format 2 are derived from Format 3 as follows:

   Current cumulative BCWS, BCWP, and ACWP for the portion of the contract dealing with our current program is multiplied by the target fee percentage to arrive at earned fee/profit. The fee/profit is added to the cost to arrive at current cumulative BPWS, BPWP, and APWP. Our current program is defined as 100 Peacekeeper missiles in modified Minuteman silos.

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Stage II Follow-on TOTAL QTY 10 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Aerojet Strategic Propulsion Co P.O. Box 15699C Sacramento CA 95813	$ 212.3M	830601
	7. AUTHORIZED UNPRICED WORK $ 3.1M	10. SIG EFF COMPL DATE (YYMMDD) 860930

5.a CONTRACT NUMBER	5.b DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE
F04704-83-C-0025	830601	FPIF	$237.9M $271.5M

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840729	CPR X CSSR OTHER	Baseline Surveillance Review REVIEW DATE September 1983

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$75.2M	$69.2M	$69.1M	$16.2M	$215.4M	$215.4M	$211.3M	$215.4M	860930

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-6.0M
Cost Variance (BCWP-ACWP) = $+0.1M

The schedule variance has deteriorated by $1.5M since the last report due to Thrust Vector Actuator and Extendible Nozzle Exit Cone problems, problems with initiator, and exhaust bosses, and in-house fabrication delays. The contract budget base increased by $2.0M primarily due to the transfer of three motor cases and one flexseal from the FSED Phase I contract. The [illegible] Manager's estimate is more pessimistic than the contractor's.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1 PROGRAM	2 IDENTIFICATION	3 PROGRAM PHASE
PEACEKEEPER	Guidance & Control Follow-on TOTAL QTY 20 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4 CONTRACTOR (NAME AND LOCATION)	6 NEGOTIATED COST	8 WORK START DATE (YYMMDD)
Aerojet Strategic Systems 1100 Miraloma Avenue Anaheim CA 92003	$ 441.5M	830303
	7 AUTHORIZED UNPRICED WORK $ 6.5M	10 SIG EFF COMPL DATE (YYMMDD)

5a CONTRACT NUMBER	5b DEFIN DATE (YYMMDD)	5c CONTRACT TYPE	9 TARGET PRICE	
F04704-82-C-0020	830118	CPIF	$487.8M CEILING PRICE N/A	860731

PERFORMANCE DATA

12 LEAVE BLANK	11 REPORT DATE (YYMMDD)	13 SOURCE DOCUMENT	13 VERIFICATION OF DATA
	840727	CPR X CSSR OTHER	REVIEW TYPE Subsequent Application Review REVIEW DATE August 1983

14 BCWS	15 BCWP	16 ACWP	17 MR	18 CONTR BUDGET BASE	19 TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21 PM's EST COST	22 EST COMPL DATE (YYMMDD)
$137.3M	$124.0M	$122.5M	$27.0M	$448.0M	$448.0M	$448.0M	$428.0M	860930

23 VARIANCE ANALYSIS

Schedule Variance: (BCWP-BCWS) = $- 13.0M
Cost Variance: (BCWP-ACWP) = $+ 1.5M

The $13.0M deterioration in the schedule variance is due to failures of tooling during quality [illegible], hole alignment, and rework problems with printed circuit boards, late staging [illegible] material, late development of the automatic sample data instrumentation system [illegible], and late engineering materials. The $1.1M deterioration in the cost variance is due [illegible] to fabricate the first block change missile electronic computer assembly (MECA) and to [illegible]-than-planned material costs for MECA assembly and fabrication. The increase in the [illegible] budget base is due to a change order for additional ASDIS hardware and final [illegible] of the Technology Modernization Program. The Program Manager's estimate is [illegible] than the contractor's.

24 OVER TARGET BASELINE

IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHEDULE VARIANCE ADJUSTMENT

SUB... ...TRACT COST ...

IDENTIFICATION

1 PROGRAM

...QTY

DEV X

PROD

INFORMATION

4 CONTRACTOR NAME

6 NEGOTIATED COST

$ 212.06

7 AUTHORIZED UNPRICED WORK

$

(YYMMDD)

820...

COMPL DATE (YYMMDD)

5a CONTRACT NUMBER

8 TARGET PRICE

CEILING PRICE

PERFORMANCE DATA

SOURCE DOCUMENT

OTHER

VERIFICATION OF DATA Subsequent

REVIEW TYPE Application Review

REVIEW DATE April 1982

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14 DCWS	15 BCWS	16 TOTAL ALLOCATED BUDGET	20 COST	EST COST	19 EST COMPL DATE (YYMMDD)
					870229

23 VARIANCE ANALYSIS

... since the ... due to the early ... The cost ... has ... incorporated by ... and test of ... functions. ... features. ... hardware. The Program Manager's estimate ... than the

design and ...

has grown ...

24 OVER TARGET ...

DATE ... (YYMMDD)

...

98

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	MK-21 Fuze TOTAL QTY 27 DELIVERED QTY 7	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	8. WORK START DATE (YYMMDD)
General Electric Company P.O. Box 7722 Philadelphia PA 19101	$ 145.3M	820809
	7. AUTHORIZED UNPRICED WORK $ 8.9M	10. SIG EFF COMPL DATE (YYMMDD)

5a. CONTRACT NUMBER	5b. DEFIN DATE (YYMMDD)	5c. CONTRACT TYPE	9. TARGET PRICE / CEILING PRICE
F04704-82-C-0018	830203	FPIF	$172.0M / $180.4M

10. SIG EFF COMPL DATE (YYMMDD)
860930

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840805	CPR X CSSR OTHER	REVIEW TYPE Baseline Surveillance Review REVIEW DATE July 1983

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$97.5M	$92.2M	$99.4M	$10.3M	$154.2M	$154.2M	$153.7M	$155.2M	870228

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-5.3M
Cost Variance (BCWP-ACWP) = $-7.2M

The schedule variance is essentially unchanged since the last report. The cost variance has deteriorated by $3.1M due to first unit build problems with the solid state radar. The contract budget base decreased by $0.9M due to definitization of change orders for depot support equipment, trainer design, and two additional fuzes for flight test use. The Program Manager's estimate is more pessimistic than the contractor's.

NOTE: The figures include costs incurred prior to FY 83 for the development of flight test missiles and all equipment leading to first flight.

24. OVER TARGET BASELINE

IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHEDULE VARIANCE ADJUSTMENT

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1 PROGRAM	2 IDENTIFICATION	3 PROGRAM PHASE
PEACEKEEPER	Stage III, Follow-on TOTAL QTY 10 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4 CONTRACTOR (NAME AND LOCATION)	6 NEGOTIATED COST	8 WORK START DATE (YYMMDD)
[illegible]rcules, Inc. [illegible]echnic Works [illegible]gnal UT 84044	$164.5M	830301
	7 AUTHORIZED UNPRICED WORK $ 1.3M	10 SIG EFF COMPL DATE (YYMMDD) [illegible]60731

5a CONTRACT NUMBER	5b DEFIN DATE (YYMMDD)	5c CONTRACT TYPE	9 TARGET PRICE / CEILING PRICE
[illegible]	840425	FPIF	$169.9M $207.2M

PERFORMANCE DATA

12 REPORT DATE (YYMMDD)	13 SOURCE DOCUMENT	14 VERIFICATION OF DATA
840731	CPR X CSSR ____ OTHER ____	REVIEW TYPE Extended Subsequent Application Review REVIEW DATE March 1984

15 BCWS	16 BCWP	17 ACWP	18 MR	19 CONTR BUDGET BASE	20 TOTAL ALLOCATED BUDGET	21 CONTR EST COST	22 PM's EST COST	23 EST COMPL DATE (YYMMDD)
[illegible].4M	[illegible]9.4M	$59.4M	$17.7M	$165.8M	$165.8M	$145.4M	$145.0M	860930

VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) $-2.0M
Cost Variance (BCWP-ACWP) $+6.0M

[illegible] variance has improved by $1.7M since last report as material budgeted in prior [illegible] has been received on the contract. The cost variance has improved by $1.0M due to [illegible] than budgeted general and administrative and overhead allocations. The Program [illegible] estimate is more optimistic than the contractor's. The contract budget base [illegible] by $1.2M due to the addition of depot support equipment.

OVER TARGET BASELINE

IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHEDULE VARIANCE ADJUSTMENT

DD Form 2734, Format 3, Page 1

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Specific Force Integrating Receiver Follow-on TOTAL QTY 109 DELIVERED QTY 83	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)			6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Honeywell, Inc., Avionics Division 13350 US Hwy 19 St Petersburg FL 33733			$ 39.7M	820104
			7. AUTHORIZED UNPRICED WORK $ 0.9M	
5a CONTRACT NUMBER	5b DEFIN DATE (YYMMDD)	5c CONTRACT TYPE	8. TARGET PRICE $45.2M	10 SIG EFF COMPL DATE (YYMMDD)
F04704-82-C-0006	811022	FPIF	CEILING PRICE $47.6M	841231

PERFORMANCE DATA

LEAVE BLANK	11 REPORT DATE (YYMMDD)	12 SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840805	CPR X C/SSR OTHER	REVIEW TYPE Staff Visit REVIEW DATE June 1982

14 BCWS	15 BCWP	16 ACWP	17 MR	18 CONTR BUDGET BASE	19 TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21 PM's EST COST	22 EST COMPL DATE (YYMMDD)
$34.8M	$34.0M	$34.0M	$1.7M	$40.6M	$40.6M	$39.6M	$39.8M	850930

23 VARIANCE ANALYSIS Schedule Variance (BCWP-BCWS) = $-0.8M
Cost Variance (BCWP-ACWP) = $ 0.0M

The schedule and cost variances are essentially unchanged from the last report. The Program Manager's estimate is more pessimistic than the contractor's.

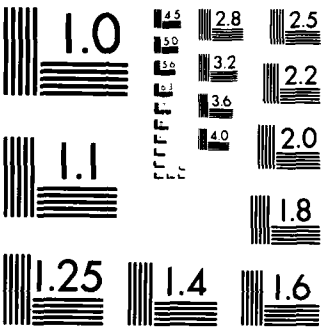
NOTE: The figures include costs incurred prior to FY 83 for the development of flight test missiles and all equipment leading to first flight.

24 OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) ______ COST VARIANCE ADJUSTMENT ______ SCHEDULE VARIANCE ADJUSTMENT ______

AD-A156 182 STATUS REPORTING ON WEAPON SYSTEM ACQUISITION PROGRAMS 2/2
(U) AIR COMMAND AND STAFF COLL MAXWELL AFB AL S D SIMS
APR 85 ACSC-85-2440

UNCLASSIFIED F/G 5/1 NL



MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1964-A

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Third Generation Gyro Second Source TOTAL QTY 22 DELIVERED QTY 8	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Honeywell Inc., Avionics Division 13350 US Hwy 19 St Petersburg FL 33733	$ 18.4M	810925
	7. AUTHORIZED UNPRICED WORK: Ø	10. SIG EFF COMPL DATE (YYMMDD): 850415

5a. CONTRACT NUMBER	5b. DEFIN DATE (YYMMDD)	5c. CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE
F04704-81-C-0014	810701	FPIF	$20.4M / $21.7M

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840805	CPR X CSSR OTHER	REVIEW TYPE: Subsecuent Application Review REVIEW DATE: January 1982

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$15.1M	$14.9M	$15.7M	$1.3M	$18.4M	$18.4M	$18.4M	$18.7M	850415

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-0.2M
Cost Variance (BCWP-ACWP) = $-0.8M

The schedule variance is essentially unchanged since the last report. The $0.2M deterioration in cost variance is due to gyro assembly problems, and additional labor to recover scheduled deliveries. The Program Manager's estimate is more pessimistic than the contractor's estimate.

NOTE: The figures include costs incurred prior to FY 83 for the development of flight test missiles and all equipment leading to first flight.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Inertial Measurement Unit, Follow-on TOTAL QTY 18 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Northrop Electronics Division (NED) 2301 W. 120th Street Hawthorne CA 90250	$ 365.0M	830830
	7. AUTHORIZED UNPRICED WORK $ 37.0M	10. SIG EFF COMPL DATE (YYMMDD) 860930

5.a. CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c. CONTRACT TYPE	8. TARGET PRICE $433.8M CEILING PRICE N/A
F04704-83-C-0023	830830	CPIF	

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840727	CPR X C/SSR OTHER	REVIEW TYPE Demonstration Review REVIEW DATE June 1984

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$152.8M	$140.8M	$139.0M	$22.5M	$402.0M	$402.0M	$377.0M	$402.0M	860930

23. VARIANCE ANALYSIS Schedule Variance (BCWP-BCWS) = $-12.0M
Cost Variance (BCWP-ACWP) = $+ 1.8M

The schedule variance has deteriorated by $4.8M since the last report due to the late release of kits and part shortages, and a large number of engineering changes, driven by manufacturing process deficiencies. The cost variance has improved by $0.8M since the last report due to accounting adjustments related to the implementation of a new automated cost/schedule data tracking system, circuit board assemblies that are costing less than planned, and lower costs of level-of-effort tasks in support of inertial measurement units subassembly. The contract budget base has increased due to a change order for additional factory support/depot support equipment. The Program Manager's estimate is more pessimistic than the contractor's estimate.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHO[illegible]D (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Third Generation Gyro Follow-on TOTAL QTY 99 DELIVERED QTY 79	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Northrop (PPD) 100 Morse Street Norwood MA 02062	$ 52.2M	820131
	7. AUTHORIZED UNPRICED WORK $-0.8M	10. SIG EFF COMPL DATE (YYMMDD)

5.a CONTRACT NUMBER	5.b DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE $57.3M CEILING PRICE $61.1M	10. SIG EFF COMPL DATE (YYMMDD)
F04704-82-C-0007	820131	FPIF		850331

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840727	CPR X CSSR OTHER	REVIEW TYPE Staff Visit REVIEW DATE April 1982

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$44.4M	$39.9M	$38.6M	$1.5M	$51.4M	$51.4M	$51.4M	$51.4M	851231

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-4.5M
Cost Variance (BCWP-ACWP) = $+1.3M

The schedule variance has improved by $0.4M since the last report due to a replanning of need dates for supplemental automatic test equipment. The cost variance has improved by $0.5M since the last report due to favorable general and administrative rates (G&A), and the correction of an accounting error in measuring material BCWP. The contract budget base has increased by $0.6M due to change orders for additional integrated logistics support and additional test equipment purchases. The contract has been extended (blocks 10 and 22) and final gyro deliveries are expected in March 1985. The Program Manager's estimate agrees with the contractor's estimate.

NOTE: The figures include costs incurred prior to FY 83 for the development of flight test missiles and all equipment leading to first flight.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Launch Control Systems TOTAL QTY 15 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
GTE Systems Strategic Systems Division 1 Research Drive Westborough MA 01581	$212.5M	831017
	7. AUTHORIZED UNPRICED WORK $ 1.5M	10. SIG EFF COMPL DATE (YYMMDD) 870930

5.a CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE
F04704-83-C-0032	840827	FPIF	$239.0M / $ 257.4M

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840727	CPR X CSSR OTHER	REVIEW TYPE Subsequent Application Review REVIEW DATE September 1984

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$62.9M	$58.5M	$60.2M	$4.0M	$214.0M	$ 214.0M	$216.9M	$216.9M	870930

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-4.4M
Cost Variance (BCWP-ACWP) - $-1.7M

This is the first SCCI submittal for this contract. Negotiation of firm budgets took place during this reporting period. Both the schedule and cost variances are due primarily to unplanned extensive rework of software development specifications for the launch control and airborne operations programs. The Program Manager's estimate agrees with the contractor's estimate.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Stage IV Follow-on TOTAL QTY 10 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Rockwell International Rocketdyne Division 6633 Canoga Avenue Canoga Park, CA 91304	$ 261.4M	830601
	7. AUTHORIZED UNPRICED WORK $ 8.5M	10. SIG EFF COMPL DATE (YYMMDD) 860530

5.a CONTRACT NUMBER	5.b. DEFN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE
F04704-83-C-0004	830629	FPIF/CPIF	$300.5M $252.8M/ FPIF

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840727	CPR X CSSR OTHER	REVIEW TYPE Staff Visit REVIEW DATE 30 April 1984

14 BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$98.0M	$91.4M	$94.3M	$33.7M	$269.9M	$269.9M	$269.9M	$264.9M	860930

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-6.6M
Cost Variance (BCWP-ACWP) = $-2.9M

The schedule variance worsened by $1.9M since the last DAES due to delays in vendor deliveries and prototype testing of the propellant storage assembly area (PSA). The cost variance worsened by $0.7M since the last report due to excessive labor hours in quality assurance and manufacturing of the PSA. The contract budget base has increased by $4.6M since the last report due to down-sizing of the propellant storage assembly. The Program Manager's estimate is more optimistic than the contractor's.

24 OVER TARGET BASELINE

IF AMOUNT IN 18 EXCEEDS 15 PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD)	COST VARIANCE ADJUSTMENT	SCHEDULE VARIANCE ADJUSTMENT

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Stage I, Follow-on TOTAL QTY 10 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	5.a CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	6. NEGOTIATED COST	7. AUTHORIZED UNPRICED WORK	8. TARGET PRICE / CEILING PRICE	9. WORK START DATE (YYMMDD)	10. SIG EFF COMPL DATE (YYMMDD)
Morton Thiokol, Wasatch Division P.O. Box 524 Brigham City, UT 84302	F04704-83-C-0001	830515	FPIF	$ 278.6M	$ 12.1M	$313.3M / $363.3M	830606	860731

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840729	CPR X CSSR OTHER	REVIEW TYPE Subsequent Application Review REVIEW DATE September 1983

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$100.8M	$91.2M	$86.5M	$22.9M	$290.7M	$290.7M	$277.5M	$272.6M	860731

23. VARIANCE ANALYSIS Schedule Variance (BCWP-BCWS) = $-9.6M
Cost Variance (BCWP-ACWP) = $+4.7M

The schedule variance worsened by $1.9M since last report and still reflects slow start-up and delays in material receipt and subcontract effort. The cost variance improved by $3.2M and reflects underruns in support areas, and favorable price variances on nozzle material. The current budget base has increased by $5.2M due to a change order for the firing unit signal conditioner. The Program Manager's estimate is more optimistic than the contractor's.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2 IDENTIFICATION	3 PROGRAM PHASE
PEACEKEEPER	Canister Development TOTAL QTY 8 DELIVERED QTY 3	DEV X PROD

CONTRACT INFORMATION

4 CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
Westinghouse Electric Corp (WEC) Marine Division Sunnyvale CA	$ 231.9M	820701
	7. AUTHORIZED UNPRICED WORK: 0	10. SIG EFF COMPL DATE (YYMMDD): 870930

5.a CONTRACT NUMBER	5.b DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE $249.8M CEILING PRICE N/A
F04704-82-C0017	821109	CPIF/AF	

PERFORMANCE DATA

LEAVE BLANK	11 REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840731	CPR X CSSR OTHER	REVIEW TYPE: Staff Visit REVIEW DATE: November 1982

14 BCWS	15 BCWP	16 ACWP	17. MR	18. CONTR BUDGET BASE	19 TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$90.7M	$84.9M	$86.8M	$20.1M	$231.9M	$231.9M	$225.0M	$228.1M	870930

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-5.8M
Cost Variance (BCWP-ACWP) = $-1.9M

The schedule variance deterioration is attributed mainly to numerous engineering drawing revisions in the Canister Assembly Launch Test Program, due to transitioning from a composite to a steel launch tube, engineering support of component testing, and late engineering releases in the Air Elevator Section. The cause for the cost variance deterioration is primarily due to premium costs paid to maintain program schedule. The budget baseline increased due to the FSED Phase II addition. The Program Manager's estimate is more pessimistic than the contractor's.

NOTE: The figures include costs incurred in FY 83 and prior spent on earlier basing modes.

24 OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Reentry System Follow on TOTAL QTY 10 DELIVERED QTY 0	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
AVCO Corp., Systems Division 201 Lowell Street Wilmington MA 01887	$ 80.5M	831128
	7. AUTHORIZED UNPRICED WORK $ 1.7M	10. SIG EFF COMPL DATE (YYMMDD)

5.a CONTRACT NUMBER	5.b. DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE	870930
F04704-84-C-0002	840312	FPIF	$ 92.6M / $ 96.5M	

PERFORMANCE DATA

LEAVE BLANK	11 REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840722	CPR X CSSR OTHER	REVIEW TYPE Subsequent Application Review REVIEW DATE May 1984

14 BCWS	15 BCWP	16 ACWP	17. MR	18 CONTR BUDGET BASE	19 TOTAL ALLOCATED BUDGET	20 CONTR EST COST	21 PM's EST COST	22. EST COMPL DATE (YYMMDD)
$15.6M	$14.1M	$14.6M	$4.5M	$82.2M	$82.2M	$82.2M	$82.2M	870930

23. VARIANCE ANALYSIS Schedule Variance (BCWP-BCWS) = $-1.5M
Cost Variance (BCWP-ACWP) = $-0.5M

The schedule variance has deteriorated by $0.5M since the last report due to a later than planned start of the Atlantic Research Corp subcontract. The cost variance has deteriorated by $0.5M since the last report due to additional costs for the refurbishment of deployment module shroud stands and shroud internal platform, and increased producibility design efforts. The increase to the contract budget base is due to a change order for the reentry system trainer design. The Program Manager's estimate is the same as the contractor's.

24. OVER TARGET BASELINE
IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

SUPPLEMENTAL CONTRACT COST INFORMATION

SYSTEM IDENTIFICATION

1. PROGRAM	2. IDENTIFICATION	3. PROGRAM PHASE
PEACEKEEPER	Basing Operational Support Equipment TOTAL QTY N/A DELIVERED QTY N/A	DEV X PROD

CONTRACT INFORMATION

4. CONTRACTOR (NAME AND LOCATION)	6. NEGOTIATED COST	9. WORK START DATE (YYMMDD)
The Boeing Aerospace Company P.O. Box 3999 Seattle WA	$ 525.1M	831001
	7. AUTHORIZED UNPRICED WORK $ 4.5M	10. SIG EFF COMPL DATE (YYMMDD) 870630

5.a CONTRACT NUMBER	5.b DEFIN DATE (YYMMDD)	5.c CONTRACT TYPE	8. TARGET PRICE / CEILING PRICE
F04704-83-C-0047	840424	CPIF/AF	$ 578.1M CEILING PRICE N/A

PERFORMANCE DATA

LEAVE BLANK	11. REPORT DATE (YYMMDD)	12. SOURCE DOCUMENT	13. VERIFICATION OF DATA
	840726	CPR X CSSR OTHER	REVIEW TYPE Baseline Surveillance Review REVIEW DATE February 1984

14. BCWS	15. BCWP	16. ACWP	17. MR	18. CONTR BUDGET BASE	19. TOTAL ALLOCATED BUDGET	20. CONTR EST COST	21. PM's EST COST	22. EST COMPL DATE (YYMMDD)
$179.7M	$172.6M	$175.2M	$31.1M	$529.6M	$529.6M	$519.6M	$503.2M	870630

23. VARIANCE ANALYSIS

Schedule Variance (BCWP-BCWS) = $-7.1M
Cost Variance (BCWP-ACWP) = $-2.6M

The schedule variance has improved by $2.2M and the cost variance improved by $4.6M since the last SCCI, because the contractor has completed detailed planning, and is measuring work performance at a lower and more accurate WBS level. The contract budget base increased by $+4.5M due to change orders for additional environmental control systems and Vandenberg test support efforts. The Program Manager's estimate is more optimistic than the contractor's.

24 OVER TARGET BASELINE

IF AMOUNT IN 19 EXCEEDS AMOUNT IN 18, PROVIDE THE FOLLOWING

DATE AUTHORIZED (YYMMDD) _____ COST VARIANCE ADJUSTMENT _____ SCHEDULE VARIANCE ADJUSTMENT _____

PROGRAM SCHEDULE MILESTONES

PROGRAM: Peacekeeper

AS OF: 30 Sep 1984

1. PROGRAM MILESTONES

(1) MILESTONES	(2) INITIAL PLAN	(3) CURRENT ESTIMATE
a. DSARC I	0376	0376
b. DSARC II	1278	1278
c. Systems Design Review	0280	0280
d. Preliminary Design Review	0880	0880
e. Stage Destruct Tests Complete	0782	0782
f. Ordnance Induced Shock Tests Complete	1282	1282
g. First Flight	0183	0683
h. Structure Load Tests Complete	0683	0683
i. First Production Contract Award	0184	0184
j. Propulsion Flight Proof Tests Complete	0484	0784
k. Initial Operational Capability (IOC)	1286	1286

PROGRAM SCHEDULE MILESTONES

PROGRAM: Peacekeeper AS OF: 30 Sep 1984

2. RDT&E CONTRACT MILESTONES

CONTRACTS	(1) MILESTONES	(2) INITIAL PLAN	(3) CURRENT ESTIMATE
(a) Stage II Follow-on	Contract Award	0683	0683
(b) F04704-83-C-0002	Contract Complete	0986	0986
(a) Guidance and Control Follow-on	Contract Award	0583	0583
(b) F04704-82-C-0020	Contract Complete	0986	0986
(a) Reentry Vehicle Program	Contract Award	0282	0282
(b) F04704-82-C-0010	Contract Complete	0287	0287
(a) System Engineering/Technical Assistance	Contract Award	1083	1083
(b) F04704-83-C-0028	Contract Complete	0984	0984
(a) MK-21 Fuze	Contract Award	0882	0882
(b) F04704-82-C-0018	Contract Complete	0287	0287
(a) Stage III Follow-on	Contract Award	0383	0383
(b) F04704-83-C-0003	Contract Complete	0986	0986
(a) Specific Force Integrating Receiver Follow-on	Contract Award	0182	0182
(b) F04704-82-C-0006	Contract Complete	0985	0985
(a) Third Generation Gyro Second Source	Contract Award	0981	0981
(b) F04704-81-C-0014	Contract Complete	0485	0485

PROGRAM SCHEDULE MILESTONES

PROGRAM: Peacekeeper AS OF: 30 Sep 1984

2. RDT&E CONTRACT MILESTONES (continued)

CONTRACTS	(1) MILESTONES	(2) INITIAL PLAN	(3) CURRENT ESTIMATE
(a) Inertial Measurement Unit Follow-on	Contract Award	0683	0683
(b) F04704-83-C-0023	Contract Complete	0986	0986
(a) Third Generation Gyro Follow-on	Contract Award	1181	1181
(b) F04704-82-C-0007	Contract Complete	1284	1285
(a) Launch Control Systems	Contract Award	1083	1083
(b) F04704-83-C-0032	Contract Complete	0987	0987
(a) Stage IV Follow-on	Contract Award	0683	0683
(b) F04704-83-C-0004	Contract Complete	0986	0986
(a) Stage I Follow-on	Contract Award	0583	0583
(b) F04704-83-C-0001	Contract Complete	0786	0786
(a) Canister Development	Contract Award	0782	0782
(b) F04704-82-C-0017	Contract Complete	0984	0987
(a) Reentry System Follow-on	Contract Award	0384	0384
(b) F04704-84-C-0002	Contract Complete	0987	0987
(a) Basing Operational Support Equipment	Contract Award	1083	1083
(b) F04704-83-C-0047	Contract Complete	0687	0687

3. RDT&E NONCONTRACT MILESTONES

Already covered under Program Milestones

PROGRAM: Peacekeeper AS OF: 30 Sep 1984

4. PROCUREMENT CONTRACT MILESTONES

No reportable contracts at this time

5. PROCUREMENT NONCONTRACT MILESTONES

Already covered under Program Milestones

PROGRAM FUNDING SUMMARY 1/
($ in MILLIONS)

PROGRAM: Peacekeeper

AS OF DATE: 30 Sep 1984
BASE YEAR: 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS FLYAWAY NONREC	BASE-YEAR DOLLARS FLYAWAY REC	THEN-YEAR DOLLARS TOTAL	THEN-YEAR DOLLARS DEBIT	THEN-YEAR DOLLARS CREDIT	THEN-YEAR DOLLARS TOTAL	ESCALATION RATE (%)
				APPROPRIATION: RDT&E				
FY 83	-	-	-	1784.1	-	-	1912.6	5.0
FY 84	-	-	-	1775.4	-	-	1984.9	4.3
FY 85	-	-	-	1463.2	-	-	1716.3	4.9
FY 86	-	-	-	695.8	-	-	852.3	4.6
FY 87	-	-	-	245.0	-	-	312.6	4.3
FY 88	-	-	-	22.5	-	-	29.8	4.0
FY 89	-	-	-	1.5	-	-	2.1	3.7
FY 90	-	-	-	-	-	-	-	3.7
TOTAL	20	0	0 2/	5987.5			6810.6	
				APPROPRIATION: PROCUREMENT				
FY 83	-	-	-	-	-	-	-	9.0
FY 84	21	283.7	963.6	1735.6	-	-	2157.4	[illegible].6
FY 85	40	25.8	1329.9	2406.6	-	-	3171.9	[illegible].4
FY 86	48	7.3	1301.8	2039.5	-	-	2832.9	6.0
FY 87	48	-	1249.6	1868.2	-	-	2727.6	5.6
FY 88	48	-	1141.9	1635.5	-	-	2504.0	5.2
FY 89	18	-	358.7	583.0	-	-	935.1	4.8
FY 90	-	-	-	33.1	-	-	55.7	4.8
TOTAL	223	316.8	6345.5	10301.5			14384.6	
				APPROPRIATION: CONSTRUCTION				
FY 83	-	-	-	14.7	-	-	16.7	4.9
FY 84	-	-	-	26.8	-	-	31.2	4.3
FY 85	-	-	-	93.4	-	-	114.0	4.9
FY 86	-	-	-	61.2	-	-	77.9	4.6
FY 87	-	-	-	45.4	-	-	60.0	4.3
FY 88	-	-	-	15.1	-	-	20.7	4.0
FY 89	-	-	-	-	-	-	-	3.7
FY 90	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	256.6			320.5	

1/Quantities and dollars are based on Peacekeeper Program Baseline (13 Feb 84).
2/Recurring flyaway cost records are not available.

PROGRAM ASSESSMENT

PROGRAM: Peacekeeper AS OF: 30 Sep 1984

INDICATOR	ASSESSMENT
Overall System Performance	S
Operational/Technical Characteristics Mission Effectiveness Factor	S
Key Decisions	S
Funding	S
Schedule	S
Contracts	S
Cost Performance	S
Test and Evaluation	S
Design-to-Cost	S
Production Readiness	S
Logistics	MI
Manpower	S

PROGRAM ASSESSMENT

PROGRAM: Peacekeeper AS OF: 30 Sep 84

PROGRAM COST ESTIMATES
($ in MILLIONS)

	Independent Cost Estimate 1/	Program Manager's Cost Estimate 2/
Estimate Date:	1 May 84	20 Sep 84
RDT&E Constant-FY 82 $:	6274.2	6069.6
Then-Year $:	7199.4	6924.2
Quantity:	20	20
Procurement Constant-FY 82 $:	9734.8	10333.4
Then-Year $:	13554.3	14671.0
Quantity:	223	223
Milcon-FY 82 $:	303.0	276.5
Then-Year $:	397.0	350.6
Quantity:	N/A	N/A

1/ Corresponds to the following buy schedule:

	Missiles	Basing
FY 84	21	0
FY 85	40	20
FY 86	48	25
FY 87	48	30
FY 88	48	25
FY 89	18	0
TOTAL	223	100

2/ Corresponds to the Program Office's FY 87 Enhanced POM submission with the following buy schedule:

	Missiles	Basing
FY 84	21	4
FY 85	21	29
FY 86	42	33
FY 87	48	35
FY 88	48	0
FY 89	43	0
TOTAL	223	101

MAJOR END ITEM DELIVERIES

PROGRAM: Peacekeeper AS OF: 30 Sep 1984

	RDT&E				PROCUREMENT			
PAST FYs	1/ PLANNED	2/ ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE	1/ PLANNED	2/ ACTUAL or CE	CUM PLANNED	CUM ACTUAL or CE
FY 83	2	2	2	2	N/A	N/A	N/A	N/A
CURRENT FY								
1st Qtr	1	1	3	3	N/A	N/A	N/A	N/A
2nd Qtr	1	1	4	4	N/A	N/A	N/A	N/A
3rd Qtr	1	1	5	5	N/A	N/A	N/A	N/A
4th Qtr	1	1	6	6	N/A	N/A	N/A	N/A
NEXT FY								
1st Qtr	1	1	7	7	N/A	N/A	N/A	N/A
2nd Qtr	1	1	8	8	N/A	N/A	N/A	N/A
3rd Qtr	1	1	9	9	N/A	N/A	N/A	N/A
4th Qtr	0	0	9	9	N/A	N/A	N/A	N/A
FUTURE FYs								
FY 86	6	6	15	15	6	6	6	6
FY 87	5	5	20	20	38	32	44	38
FY 88	N/A	N/A	N/A	N/A	45	43	89	81
FY 89	N/A	N/A	N/A	N/A	48	48	137	129
FY 90	N/A	N/A	N/A	N/A	48	48	185	177
FY 91	N/A	N/A	N/A	N/A	38	46	223	223

1/ Based on 30 Jun 1983 SAR (Baseline SAR).

2/ Based on 13 Feb 1984 Program Baseline.

PROGRAM VARIANCE ANALYSIS

PROGRAM: Peacekeeper

AS OF: 30 Sep 1984

CHANGES SINCE THE 30 JUN 84 DAES

Format 2:

1. In the Jun 84 submission, pending work (i.e., work not yet on contract) was included in column 5 (PMCEPAC). Per direction from HQ AFSC/ACX, such pending work should not be included in column 5. This submission implements that direction.

Format 4:

1. The Third Generation Gyro Follow-on contract is being extended one year to allow the contractor to complete delivery of the last of 99 gyros.

2. The Canister Development contract was amended to continue the effort through Sep 87. This amendment was done in lieu of negotiating a new contract for the follow-on effort. Note that the cost of the follow-on effort was reported in the Jun 84 DAES as part of the contract cost (Format 2) because these figures included pending efforts not yet on contract.

Format 6:

1. Logistics - Marginal Improving trend. Our intention is to have full depot capability at IOC. The Integrated Logistic Support Program is assessed as marginal with an upward trend due to possible delays in deliver of support equipment and the ATLAS compiler development delays. Also, logistics support record data sheets are behind schedule which can impact the identificaiton of support requirements. Additionally, there exists a shortfa in FY 86 initial spares funding and a shortfall in FY 87 through FY 90 depot maintenance funding. Shortfalls will add risk in maintaining weapon system availability.

PROGRAM VARIANCE ANALYSIS

PROGRAM: Peacekeeper AS OF: 30 Sep 84

CHANGES SINCE THE JUN 84 DAES (continued)

2. The 1 Mar 84 PMCE shown in the Jun 84 DAES corresponds to the FY 85 President's budget. Recent information made available to the Program Office indicates that the FY 85 approved funding will be for 21 missiles in FY 85. Since this is a departure from the baseline of 40 missiles, the Program Manager has devised a program (the FY 87 Enhanced POM input) that will fit the FY 85 constrained missile buy, stay within the Program Manager's total program dollar commitment, and still meet IOC and FOC. This Enhanced POM program is what is reflected in the PMCE submitted with this DAES.

3. The planned deliveries of the procurement missiles has changed since the Jun 84 DAES. The Jun 84 DAES showed the delivery schedule for a program other than the baseline program. This submission corrects that error.

GENERAL COMMENTS:

Except for the PMCE in Format 6, this DAES does not take into account any upcoming external program perturbations (e.g. congressional action).

END

FILMED

8-85

DTIC