



# REPORT TO THE CONGRESS



# How To Improve The Selected Acquisition Reporting System

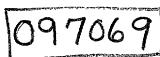
Department of Defense

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

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#### COMPTROLLER GENERAL OF THE UNITED STATES

WASHINGTON, D.C. 20548

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

This is our report on how to improve the selected acquisition reporting system in the Department of Defense.

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

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Defense; and the Secretaries of the Army, Navy, and Air Force.

Comptroller General of the United States

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	ABBREVIATIONS	
ASD(C) DOD GAO OSD RDT&E	Assistant Secretary of Defense (Comptroller) Department of Defense General Accounting Office Office of the Secretary of Defense Research, development, test, and evaluation Selected acquisition report	

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COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

DIGEST

#### WHY THE REVIEW WAS MADE

Since its inception in 1969, the selected acquisition report has become the key recurring summary status report to the Congress on the progress of Department of Defense weapon systems acquisitions.

GAO has been working with the Department and congressional committees on improving the selected acquisition report. This report summarizes GAO's findings, provides suggestions as to how further improvements could be made and presents the Department of Defense's position on these matters.

#### FINDINGS AND CONCLUSIONS

It is important that the selected acquisition report provide full disclosure of the status of each system. GAO identified 10 areas where improvements would result in increased usefulness of the selected acquisition report to the Department of Defense and the Congress.

The first seven improvements have been recommended by GAO and interested congressional committees in past years. In some cases, the Department of Defense agrees but they have not reached agreement

HOW TO IMPROVE THE SELECTED ACQUISITION REPORTING SYSTEM Department of Defense

with all interested parties as to how the improvements should be implemented.

In other cases, the Department of Defense has not adopted the recommendations because

- --data has been made available to committees in earlier selected acquisition reports or other documents,
- --data would increase workload and size of report,
- --data would make selected acquisition report inconsistent with other programrelated documents, particularly budget documents,
- --data should be furnished to interested parties by use of separate documents, or
- --the selected acquisition report as currently prepared is sufficient from a monitoring and management standpoint.

The following 10 improvements would result in increased use-fulness of the selected acquisition report to the Department of Defense and the Congress.

 Performance characteristics should be related to mission requirements and an assessment provided as to the extent the system is expected to satisfy the mission requirements. (See p. 5).

- 2. The status of related systems and key subsystems should be shown on selected acquisition reports. (See p. 7.)
- 3. Selected acquisition reports should compare costs incurred, schedule milestones attained, and technical performance accomplished with what was planned for the same period of time and costs budgeted. (See p. 7.)
- Precise criteria should be established for adding to and deleting from selected acquisition reports all major acquisitions. (See p. 8.)
- 5. Planning estimates should be retained on the selected acquisition report so that there is total visibility and trackability from program inception. (See p. 10.)
- 6. All costs which are expected to be expended for the benefit of the development and procurement of a weapon system should be included. (See p. 11.)
- 7. Considerable improvement could be made in reporting logistic support/additional procurement costs. These type costs should be expanded to include all remaining procurement costs related to a program but not currently being reported as program acquisition costs. These type costs should be included

in the cost section of the selected acquisition report rather than in a separate section.

In addition, this section on logistic support/additional procurement costs should include firm baselines established with footnotes indicating the basis for these baselines, and any changes from these baselines should be provided in the form of a variance analysis. (See p. 12.)

- 8. Significant pending decisions that may have a major impact on a program should be highlighted.

  (See p. 14.)
- 9. The cost, schedule, and performance thresholds established in the decision coordinating paper should be disclosed in the selected acquisition report. (See p. 15.)
- 10. Responsibility for complete, reasonable, and accurate selected acquisition report preparation should be delegated to one individual, namely the project officer. The project officer should also certify as to the credibility of the report. (See p. 16.)

#### RECOMMENDATIONS

GAO recommends that the Secretary of Defense incorporate the improvements discussed in this report into Department of Defense Instruction 7000.3 as soon as practicable.

# AGENCY ACTIONS AND UNRESOLVED ISSUES

Department of Defense has been pursuing a program to improve the selected acquisition report and in late 1974 completed an evaluation of the recommended improvements in this report and other recommended improvements to current format and guidelines. The Department is revising its selected acquisition reporting instruction to implement some of the improvements discussed.

The Department agrees with some of the recommendations and disagrees with others. The Department's position with respect to each improvement is presented in the report, and the complete comments of the Department are included as appendix I.

# MATTERS FOR CONSIDERATION BY THE CONGRESS

This report contains informa-

tion on shortcomings in the Department of Defense's selected acquisition reporting system and GAO's suggestions for improving the system. This information should assist committees of the Congress and individual Members of Congress in connection with their legislative responsibilities to authorize and appropriate funds for major weapon systems.

Several committees, subcommittees, and individual Members of Congress have had a long-standing interest in the manner the Department of Defense reports on its acquisition of major systems, and they have made a number of suggestions to the Department to improve the quality of reporting.

If the committees want to insure prompt and meaningful action on GAO's recommendation, they should pursue these matters further with the Department of Defense during hearings.

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#### CHAPTER 1

#### INTRODUCTION

This report presents our evaluation of and recommendation on how to improve the selected acquisition reporting system. The report also presents a brief history of the system, including past improvements and general congressional and Department of Defense (DOD) attitudes on the effectiveness and necessity of having such a reporting system.

#### SCOPE

To evaluate current policies and practices, we examined the Selected Acquisition Reports (SARs) of all weapon systems included in this reporting system. Information on these systems was obtained by reviewing plans, reports, correspondence, and other records and by interviewing officials at the system program office, intermediate and higher commands throughout the military departments, and the office of the Secretary of Defense. We evaluated the policies, procedures, and controls related to selected acquisition reporting.

#### CHAPTER 2

#### THE SELECTED ACQUISITION REPORTING SYSTEM

#### ORIGIN AND PURPOSE

DOD Instruction 7000.3 of February 23, 1968, established the SAR requirement. Before SARs were introduced, there were no summary recurring reports on major acquisitions which retained cost, schedule, and performance data for comparison with earlier and later estimates.

SARs initial purpose was to keep its sponsor, the Assistant Secretary of Defense (Comptroller) (ASD(C)), apprised of the progress of selected acquisitions and to compare this progress with the planned technical, schedule, and cost performance.

During 1968 SAR was in an experimental stage; only eight programs were reported on. Early in 1969 the Secretary of Defense established an objective that he be advised regularly of the status of major acquisitions. Concurrently the Chairman of the Senate Armed Services Committee concluded that the Congress should also be regularly informed of the progress of DOD acquisitions and requested periodic reports on such programs. The parties concerned discussed their needs and decided that SARs would be used to advise top DOD management and the Congress of the progress of major acquisitions. As a result, SAR became and remains the key recurring summary report from DOD to inform the Congress on the progress of major acquisition programs.

#### INTEREST AND IMPROVEMENTS

Since inception of SAR we have worked with congressional committees and DOD making considerable improvements on the system.

The Senate and House Armed Services and Appropriation Committees are the primary congressional users of SAR. These committees have long been concerned with acquiring adequate information on the progress of major weapon systems, particularly those in the early phases of the acquisition process when numerous options on further courses of action are still available to the Congress. The committees have stated that SAR is a valuable management tool to monitor progress; therefore, the committees have taken an active interest in and made recommendations for improving SAR to better serve their needs.

Recently, for example, the Senate Appropriations Committee, in its report 93-1104 of August 16, 1974, stated that, it felt SAR should be improved beginning with establishing criteria and procedures for adding systems to and deleting systems from SAR. The Committee urged the

Secretary of Defense to meet with it at the beginning of each fiscal year to discuss the need for adding new systems to SAR and for retaining older systems on SAR. In addition, the Committee made the following recommendations:

- 1. "Changes in planning and development estimates should not be deleted from subsequent reports. SARs should contain a cumulative record of all estimates so that there is total visibility and trackability from a program's inception.
- 2. "SARs should show a comparison of cost incurred, schedule milestones attained, and technical performance accomplished with what was originally projected. This will provide some measure as to whether the program is on schedule and within cost.
- 3. "The ultimate objective of developing and acquiring new weapon systems is to improve our capability to accomplish a particular mission or counter a specific threat. The performance characteristics identified on the SAR should be directly related to the weapon system's planned capabilities and mission requirements and an assessment should be provided stating whether the system is expected to attain the stated capabilities."

The improvements outlined above have been suggested by GAO in past reports and are also included in this report because we believe they are necessary to insure that SAR provides full disclosure of program status.

The Senate Armed Services Committee in its report, 93-884, dated May 29, 1974, stated that it had requested some improvements in the format and detailed information in SAR and recognized that there are possible additional changes that can be made. The Committee emphasized that SARs are for its use in monitoring weapon system progress and are not expected to include all the information needed to manage the programs.

During the past 5 years DOD has made a conscientious effort to improve SAR by (1) providing more precise definitions of such terms as weapon system costs, procurement costs, and program acquisition costs, (2) shortening SAR format for easier reading and quicker analysis, (3) providing categories of cost variances for program officials to use in identifying specific cost growth factors for the program, and (4) revising SAR instructions to require that cost estimates reflect the best estimates of the amounts ultimately to be paid, specifically incorporating anticipated changes in future prices.

Since September 1970 it has been DOD's policy that SAR reflect the best estimate of full acquisition cost, including a realistic provision for experienced and projected inflation. In estimating inflation for

major acquisition programs, the military services were to give priority to information pertinent to each program, such as contract provisions, contractor wage plans, and labor agreements. In projecting future inflation for a program when adequate data is not available, the policy has been to permit the military services to develop price indexes or to use indexes published by ASD(C) based on Bureau of Labor Statistics indexes.

While it has always been difficult to estimate the impact of inflation on future program costs, the rate of inflation experienced in the United States in the past year had been greater than provided for in ASD(C) guidance to the military departments.

During the past 6 months ASD(C) has issued numerous changes to SAR reporting instructions in an attempt to better define and identify the amount of inflation already experienced in its programs, the amount of inflation expected in the future, and the assumptions used in estimating the amount of inflation.

#### CHAPTER 3

#### EVALUATING THE SELECTED

#### ACQUISITION REPORTING SYSTEM

Early in 1974 we issued 52 weapon system studies to the Congress which included evaluations of SARs on applicable systems. This chapter summarizes the results of our work and presents our recommendations for improving the SAR system.

This report includes 10 areas where improvements could be made to increase usefulness of SAR to the Office of the Secretary of Defense (OSD) and the Congress. The first 7 improvements have been recommended by GAO and interested congressional committees in past years. In some cases DOD agreed with the recommended improvements but had not reached agreement with all interested parties on how the improvements should be implemented. In other cases DOD had not adopted the recommendations because (1) data was made available to committees in earlier SARs or other documents, (2) supplying the data would increase workload and size of report, (3) data would make SAR inconsistent with other program-related documents, particularly budget documents, (4) data should be furnished to interested parties in separate documents, or (5) current SARs were sufficient from a monitoring and management standpoint.

#### CONCEPTS OF THIS STUDY

It is clear that the Congress has a keen interest in the SAR system as the means for periodically informing it on the status and progress of major weapon systems acquisitions. SAR is to be an information document and, as such, it should provide full disclosure of the status of each system.

At the outset, our purpose was to examine SAR to see what was of particular interest to the Congress, how DOD decides which programs are to be included in SAR and to identify areas where improvements are needed to fully disclose all important aspects of each program.

The improvements described in this chapter are those which we believe require early attention and implementation by DOD. Where appropriate, we have cited examples which clearly demonstrate the need for implementing the improvements into SAR instructions. It is not our intention in this report to focus on any particular acquisition.

#### Relate performance characteristics to mission requirements

The ultimate objective of developing and acquiring major weapon systems is to improve DOD's capability to accomplish a particular mission

or counter a specific threat. SAR should show performance characteristics directly related to the weapon system's planned mission and requirements. Also, it should provide an assessment as to whether the system is expected to attain or has demonstrated the capabilities.

Some SARs include performance characteristics which generally relate to the system's required mission; but most SARs do not assess the system's capability of satisfying the mission for which it was developed. For example, the Improved HAWK is a low-to-medium-altitude air-defense guided missile. SAR for the Improved HAWK includes performance characteristics which address its air defense mission requirements. The characteristics relate to intercept altitudes, target speed handling capability, reaction time, reliability, availability, probability of single-shot kill of single and multiple targets, and inherent system effectiveness. While SAR for the Improved HAWK shows demonstrated performance of each characteristic, it does not assess the system's capability of satisfying the air defense mission for which it was developed and deployed. Nor is it possible to conclude that by meeting the stated performance characteristics, the Improved HAWK can or cannot satisfy its mission requirements.

Performance characteristics shown on SAR for the DD-963 destroyer relate primarily to physical characteristics of the ship's hull and to identification of armament subsystems to be included on the ship. The purpose of this ship is to satisfy a portion of the Navy's antisubmarine warfare mission. However, SAR does not relate any performance characteristics to antisubmarine warfare mission, nor does SAR assess whether the DD-963, when delivered to the Navy, will have its needed capability and will be able to accomplish its stated antisubmarine warfare mission.

The F-14 SAR is one of the few which assesses a system's capability to perform its mission by stating that the probability of the F-14's achieving its primary mission is excellent. While the assessment statement on the F-14 SAR is informative, it should be expanded to state whether the system, when deployed, is expected to achieve its mission as originally defined, revised, and currently visualized.

As the threat changes, a system's mission must be revised to insure that, when deployed, it will be able to counter the existing and/or anticipated threat for which it is being procured. SAR should show the capabilities required to achieve the system's planned mission, to the extent that the system is expected to satisfy its planned mission when deployed and in the foreseeable future.

### DOD position

DOD believes that the characteristics now shown on SARs identify those performance and design parameters which best describe the system and best reflect its expected effectiveness in performing its intended mission. Further, DOD believes that the highlight section of SAR does provide an assessment of the system's capability.

# Status of related systems and key subsystems should be shown

Instruction 7000.3, as currently written, does not require information on related but separately funded programs. As a result, SARs for some major weapon systems present status of a program, but do not address status of a total weapon system. Since many weapon systems are comprised of a number of major subsystems, we believe it is essential that SARs include pertinent status data on key subsystems and closely related programs comprising the total weapon system. SAR would be more meaningful if the status of these systems was briefly described.

The F-15 SAR makes no reference to the status of important related systems,—the Tactical Electronic Warfare System, AIM-7F Sparrow, and AIM-9L Sidewinder missiles. Sparrow F and Sidewinder missiles are on separate SARs. These systems are critical to the F-15's accomplishing its air superiority mission.

The information should be brief and should show how each system or subsystem is progressing in relation to the system and subsystems with which it is to interface.

Similarly, SAR for the Patrol Frigate makes no reference to the status of such key subsystems as the AN/SQS-56 sonar and the OTO Melara 76mm gun or to related systems such as Lamps, Harpoon, and the Phalanx. As a result, we believe that SAR for the Patrol Frigate does not clearly present the status of the total weapon system.

#### DOD position

DOD basically agrees with this recommended improvement. We have been told that Instruction 7000.3 is currently being revised and it will consider requiring that each SAR include a brief statement on the status of related systems and subsystems, and how each is progressing in relation to the system or subsystems with which it is to interface.

#### Progress measurement data essential

SARs, while providing the status of a system's cost, schedule and performance, do not show the relationship of cost, schedule, and performance. This could be done by comparing costs incurred, schedule milestones attained, and technical performance accomplished with what was expected for the same period of time and cost budgeted.

#### DOD position

DOD believes that SAR highlights and schedule sections already contain sufficient information to indicate, from a program monitoring and management standpoint, the current v. planned status of system development at the end of each reporting period. DOD believes, in addition, that adding this type of data would complicate the present report format, increase its size, and confuse the reader. We agree that SAR provides status data but, to be a useful and effective management tool, it should provide some measure of the progress of a program against the progress expected for the same amount of resources and time expended.

#### Criteria for selected acquisition reporting

SAR systems should, as a minimum, include those which are or will be of primary concern to the Congress in its annual authorization and appropriation of funds. New systems entering the early phases of the acquisition process for which the Congress will be asked to authorize and appropriate huge sums of money in future years, should be prime candidates for SAR. These new systems are those on which major decisions remain to be made and where complete visibility is necessary if proper decisions are to be made.

Instruction 7000.3 states that SARs are required for all programs designated as major by the Secretary of Defense and will usually be those programs which require a total of \$50 million for research, development, test and evaluation (RDT&E) or \$200 million for procurement. Major systems not qualifying under these dollar guidelines may be designated for SAR coverage by the Secretary.

Congressional committees and the services can recommend that systems be added to and removed from SAR. DOD is currently acquiring well over 100 major systems in various phases of the acquisition process from early concept formulation to production and deployment.

In our opinion, Instruction 7000.3, does not provide adequate and precise criteria for adding and deleting weapon systems to SAR.

In our March 1972 <u>LAMPS</u> program staff study and each year since, we have recommended to the Navy that the LAMPS program be included on SAR. In 1973 the ASD(C) requested the Navy to prepare a SAR on LAMPS. Navy replied that, since the program had not been completely definitized and the initial decision coordinating paper would be prepared later in the year, the initial LAMPS SAR should be postponed. ASD(C) concurred. The paper for LAMPS was approved in September 1973. As of June 30, 1974, the LAMPS was not on SAR even though the estimated program cost was \$1,572.8 million, and \$45.8 million had been funded.

The following schedule shows other systems we have recommended for SAR reporting, the date we made our recommendations and DOD actions taken.

<u>System</u>	Date of recommendation	On SAR	Acquisition phase	Estimated program cost 6-30-74 (mil.	Funded as of 6-30-74 Lions)
Site Defense Surface Effects	Mar. 1973	No	Dev.	\$895.4	\$295.3
Ship (note a)	Mar. 1974	No	Dev.	781.8	154.2
CH-53E	Feb. 1973	6-73	Dev.	550.1	43.5
Sidewinder AIM-9L	Feb. 1973	6-73	Dev.	373.6	34.8
OTH-B	Mar. 1972	No	Dev.	334.4	16.8
Lightweight Fighter					
(note a)	Mar. 1974	No	Dev.	121.7	99.0
Advanced Medium STOL	- · !			•	
Transport (note a)	Mar. 1974	No	Dev.	229.1	55.0

a These programs are to develop prototype systems only. There are no cost estimates beyond the prototype development phase.

All the above systems meet the dollar criteria established by SAR instructions. Further, most are in early development and all systems still face major decision points involving large commitments of funds. This list is not all-inclusive; there are other systems that might be considered as prime candidates for SAR.

We agree with the recommendations in the Senate Appropriations Committee Report Number 93-1104, August 16, 1974, that the Secretary of Defense meet with the committee at the beginning of each fiscal year to discuss the need for adding new systems and deleting older systems from SAR. We suggest, however, that this meeting should include the four interested committees of the Congress—the Armed Services and Appropriations Committees. All major weapon systems, beginning with those in the early phases of development through full deployment, and agreements reached on those programs, could be considered for inclusion in SAR.

#### DOD position

DOD believes that (1) the present dollar criteria of \$50 million for RDT&E and/or \$200 million for procurement should be continued; (2) systems should be added to SAR at the time of the Defense System Acquisition Review Council II (the beginning of full-scale development); (3) termination of SAR reporting usually takes place when production is 90 percent

complete; and (4) adding and deleting systems from SAR should be based on recommendations of the ASD(C), congressional and OSD users, and the military services.

#### Retain planning estimate on SAR

To accurately evaluate the progress of a major defense system, it is essential to have a static baseline from which changes can be measured and evaluations made. A baseline change tends to obscure important issues requiring subsequent management actions. When a system becomes a candidate for a major acquisition, DOD prepares a planning estimate which is normally used in SAR as the baseline from which program progress is measured. However, this baseline is dropped from SAR when the system moves into full-scale development. From then on the development estimate becomes the baseline.

We agree with DOD that, at the time a system enters full-scale development, the new estimate should be shown. However, we believe that the planning estimate should be permanently retained on SAR for tracking purposes and to show whether changes have occurred since inception of the program. The following schedule shows examples of the visibility that would be provided if planning estimates were retained. Column 4 illustrates the cost growth on these programs before the beginning of full-scale development, which is not evident in SAR.

System	Planning estimate	Development estimate	Change in <u>estimate</u> (millions)	Current estimate 6-30-74	Change in estimate
Improved				_	
HAWK	\$ 335.5	\$ 588.2	\$ 252.7	\$ 852.4	\$ 264.2
WOT	410.4	727.3	316.9	979.3	252.0
TACFIRE	123.6	160.5	36.9	291.3	130.8
ssn-688	1,658.0	5.747.5	4,089.5	7,862.6	2,115.1
Phoenix	370.8	536.4	165.6	1,154.3	617.9
DD <b>-</b> 963	1,784.4	2,581.2	796.8	3,598.6	1,017.4
Maverick	257.9	383.4	125.5	573.2	189.8
B-1	8,954.5	11,218.8	2,264.3	18,632.6	7,413.8
A-10	1,025.5	2,489.7	1,464.2	2,733.5	243.8

As shown by the above schedule, planning estimates in the past have normally been much less than the development estimates and the current estimates. One reason for this difference is that the planning estimate is prepared early in the acquisition process and limited data is available at the time. We have noted that reasons for cost growth in programs results from such things as revised and refined program concepts, unanticipated development difficulties, faulty planning, poor management, bad

estimating, or deliberate underestimating. However, it is important to recognize in any cost growth analysis that not all cost growth can reasonably be prevented and that some cost growth, though preventable, may be desirable. We believe it is important that the planning estimates be shown on SAR and brief reasons for the change between the planning and development estimates should be cited. It is equally important that the planning estimates for performance and schedule milestones also be retained. These retentions on SAR will provide the reader with a baseline track on the system's original estimated costs, its planned or desired performance, and its original schedule milestones.

The visibility provided by retaining planning estimates on SAR should motivate responsible individuals to do a better job in establishing systems requirements, designing systems, and managing the development and procurement of major weapon systems.

#### DOD position

DOD believes that retaining the planning estimate on SAR is confusing and is not consistent with sound acquisition management.

#### Costs not fully reported

Numerous SARs do not present the complete program cost estimate. SAR for the Army's Stinger missile excludes estimated costs for projected Marine Corps requirements, and the costs of developing an alternate seeker which is intended to increase the system's capability in a countermeasure environment. We believe the estimated costs of the Marine Corps requirements (\$45 million) are just as pertinent to the Stinger's acquisition cost as the cost of Army requirements and should be reported to show total program and DOD requirements.

Estimated costs of developing an alternative seeker are not included because it is not funded as part of the Stinger program. However, DOD in approving the Stinger engineering development program required the Army to (1) complete a demonstration program for an alternative system which does not rely on infrared homing and (2) continue its effort to develop a two-color (infrared and ultraviolet) seeker to strengthen Stinger's performance in a countermeasure environment. In our opinion, the development of this seeker is a part of the Stinger program, and its estimated costs should be included in the SAR.

\$40 million for the GAU-8 gun. The A-10 aircraft and gun combine to form an integrated weapon system, and no other existing aircraft can carry this gun without major structural redesign. The reason cited for not including development costs in the A-10 program estimate was that the gun is being

developed for the close-air-support mission and not solely for A-10 application. Therefore, development costs not specifically identified with the A-10 program are being reported under a separate program element but not as a part of any major acquisition program. Whether the gun can or will be used on other weapon systems is speculative at this time. We note that no other aircraft in inventory or under development is earmarked to carry the GAU-8. We believe that total development costs for the gun should be considered a part of the total program cost estimate for the A-10.

SAR for the Maverick missile excludes costs of about \$240 million for developing the close-air-support weapon system, consisting of new seekers and other improvements to the Maverick missile and launch air-craft. The reason cited for not including the costs in the Maverick program estimate was that the close-air-support weapon system was considered a separate program. The program is separately funded but is directly related to the Maverick missile and managed by the Maverick System Program Office. The last 2,000 Maverick missiles to be delivered under a current production contract will include one of the improved seekers developed under the close-air-support weapon system program. Because of the close relationship of the development programs to the Maverick missile, we believe the costs should be reported on the Maverick SAR.

#### DOD position

DOD believes that (1) the cost reported on SAR should reflect the scope and composition of the latest approved program, (2) development costs for related subsystems, such as the A-10 gun, should be included in SAR when the uniqueness of the subsystem to a single weapon system is established, and (3) a specific decision on whether to include these costs should be made at the Defense System Acquisition Review Council II, when a system enters full-scale development.

# Revise reporting of logistic support/additional procurement costs

The logistic support/additional procurement cost section of SAR should be expanded to include all remaining procurement costs not currently being reported as program acquisition costs. These costs should be included in the cost section as part of total program costs rather than being reported as a below-the-line item in a separate section of SAR. Further changes in these amounts from one period to another should be explained.

Instruction 7000.3, dated September 13, 1971, defined logistic support/additional procurement costs as those limited to costs requiring

procurement appropriations, which can be related to maintaining, operating, or improving a major defense system rather than its program acquisition cost. Examples included replenishment spares, modifications, component improvement, common support equipment, production base support/facilities and other costs listed in the aggregate in the Five-Year Defense Plan Procurement Annex.

In a letter dated May 25, 1972, the ASD(C) issued new reporting requirements for logistic support/additional procurement costs. The letter stated that, in the interest of uniformity, clarification, and simplification of the reporting requirement, only modification and component improvement costs would be reported and all other costs currently being reported would be deleted. The direct result of this reporting policy change was to decrease costs being reported in SAR by about \$3 billion. The following schedule shows the overall effect of this policy on reporting total program costs.

System Logistic Support/Additional Procurement Costs

	Old policy June 30, 1971	New policy June 30, 1972 (millions)	Net decrease
B-1 F-15 A-7D UTTAS Dragon	\$ 829.5 836.1 337.8 114.2 42.2	\$ 250.1 345.1 62.4 62.5	\$579.4 491.0 275.4 51.7 42.2
Improved HAWK Sparrow E Poseidon	94.7 51.9 1,623.6	12.3 24.7 1,202.9	82.4 27.2 420.7
P-3C	77.4	40.3	37.1

Logistic support/additional procurement costs are budgeted as separate line items covering all these costs for systems of one military service. For example, replenishment spares for Air Force aircraft would be listed as a single line item in the Air Force budget, and would support the Air Force's need for replenishment spares for all its aircraft for the budget year. These costs, while budgeted separately from the specific weapon system they support, are based on experienced replacement factors and planned weapon system use.

These logistic support/additional procurement costs, which amount to hundreds of millions of dollars on some systems, can be a major factor in deciding which weapon systems to buy and whether to start, continue, or stop acquiring specific weapon systems. We believe there is a need to include such data on SAR and explain significant changes in amounts reported from period to period.

#### DOD position

DOD believes that logistic support/additional procurement costs are support costs which are incurred after acquiring and deploying weapon systems. As such, these costs should not be reported on SAR.

#### Highlight significant pending decisions

Significant pending decisions that will have a major impact on the program, such as changes in quantities or deliveries, and decisions to enter full-scale development or exercise a production option should be highlighted. It is essential that the Congress be apprised of pending decisions which will have a major impact on DOD's requests for funds and the system's capability to accomplish its desired mission.

For example, Navy's initial inventory objective for the Harpoon was 4,200 production missiles and that quantity was reported through the September 1973 SAR. However, a reassessment of Harpoon deployment plans in April 1973 resulted in adjusting types and number of launch platforms, and reducing planned missile quantities to 2,870. Between April and December 1973, minor revisions were made to the quantity of missiles to be procured. The December 31, 1973, SAR showed the Navy's inventory objective to be 2,870 missiles. While the June and September 1973 SARs indicated that the program was being reassessed and an adjustment was expected in the procurement objective and related costs, there was no indication that the program quantities would be cut by over 31 percent. This resulted in a slight reduction of total program cost; however, unit costs increased about 40 percent. We believe that pending program changes of this magnitude should be highlighted in SAR.

In August 1973 the Secretary of Defense issued a program decision memorandum proposing to reduce the planned production rate and extend the production cycle for the F-15 aircraft program by 1 year. Although the House Appropriations Committee was made aware of the memorandum in September 1973, such disclosure was not made on SAR until December 31, 1973, after the Secretary of Defense made his decision in the December 1973 program budget decision document.

The effect of this change was to extend the production program by 1 year and reduce the yearly production rates for fiscal years 1975 through 1978 and increase the rate for 1979. The cost impact was an increase of \$846.9 million in estimated procurement costs. The Air Force attributes \$509.0 million of this increase to a loss of production efficiencies and purchasing economies inherent in the revised schedule and \$337.9 million for additional escalation at 4 percent caused by scheduling production in later years.

As discussed above, SAR for the Harpoon program disclosed that the Navy and OSD were reevaluating requirements and inventory objectives for the Harpoon and that a change would be made. However, there was no indication of the significance of the contemplated change. For the F-15 program, SAR did not disclose that the Air Force and OSD were reevaluating the planned production rate and production cycle until after the decision was finalized.

These pending decisions are not shown on SAR because OSD instructions state that proposed major program changes should not be reported until the budget cycle is complete. We believe that SAR should keep congressional committees informed of major weapon system status, and therefore pending changes of the type discussed above should be clearly identified and reported. In those cases where the impact on cost, schedule, or performance has not been precisely identified and a final decision has not yet been reached, SAR should note that the pending change is expected to have a major impact on the program's cost, schedule, or performance.

#### DOD position

It has been DOD's policy that SAR should reflect the currently approved program and the best estimate of the acquisition cost of that program. The approved program includes decisions made by the Secretary of Defense but does not include pending budget changes until the budget cycle is complete. DOD seems to agree with our suggestions regarding disclosure of pending decisions and says that program developments, which require revising the cost, schedule, or performance sections of SAR, will be identified when known, in the highlight section of future SARs even though the final decision on the program change is pending. This proposed action has not yet been implemented in SAR instructions.

#### Show program thresholds on SAR

SAR should show the program thresholds established in the decision coordinating paper for cost, schedule, and performance for the total program.

The purpose of the paper is to support the Defense System Acquisition Review Council review and the Secretary of Defense decisionmaking process throughout the system program life cycle. It is the principal document for recording essential information on a program; e.g., need/threat, concept, milestones, thresholds, issues and risks, alternatives, management plan, supporting rationale for the decisions, and affordability in terms of projected budget and phasing of outyear funding.

The Secretary of Defense decision authorizes a program to move from one phase of the acquisition process to another. This decision remains in force throughout the specific phase of the acquisition process unless

new evidence arises to change it. For example, the Secretary of Defense decision establishes program thresholds or upper limits for cost, schedule, and performance. Indications that a threshold may be breached requires the program to be reviewed again by the Secretary of Defense, and he will decide how the program should proceed. For example, a cost threshold may be 10 percent over the cost baseline; a schedule threshold may be a slippage of 6 months; a performance threshold may be a decrease in a performance characteristic of 10 percent.

Barring the breaking of decision coordinating paper thresholds, the Secretary of Defense keeps informed on program progress between decision points through regular program reviews and SARs.

The paper is generally the basis for cost, schedule, and performance baselines on SAR. In this connection Instruction 7000.3 requires that the summary page of each SAR include a section entitled Decision Coordinating Paper Thresholds Breached. This section is to include a statement on and specifically identify any thresholds which have been or are expected to be breached.

In our review of SARs, we noted that the military services were including a statement, where applicable, of the thresholds which had been breached or were expected to be breached and the extent that they were being breached. While data on breached thresholds is informative, we believe that SAR would give the user a better perspective if the paper thresholds were disclosed in SAR at the time they are established rather than when the thresholds have been, or are about to be breached.

#### DOD position

DOD does not agree with this recommended improvement. Its policy requires project officers to report actual or anticipated breaches of decision coordinating paper thresholds as early as possible. DOD believes there is no clear need to identify and report the specific thresholds on a quarterly basis because such reporting would be inconsistent with the policy of keeping SAR a top-level and concise summary report.

#### Effects of review levels on SAR

SAR originates with the project officer. It is then forwarded through various commands and headquarters channels within the military departments and finally on to OSD. Each level has a review function, the value of which has been of concern to the ASD(C). In a recent study of SAR processing, the Comptroller's staff determined there was a tendency toward too many reviews at too many levels.

We agree and point out also that often additions are made to SAR at the intermediate levels without full concurrence and coordination with the project officer. Delays associated with resolving issues are not only inevitable but necessary. Agreements are not always reached on the resolution, and it is not always clear to the project officer why higher commands had to make changes. Final approval of SAR, upon completion of the review process, rests with the Deputy Secretary of Defense.

We believe that some of the problems related to SAR and discussed in this report are inherent in DOD's SAR review process. Reviews by different management levels providing input to SAR can often raise issues without prompt resolution between management levels involved. It seems that, with the emphasis DOD has placed on assigning flag-rank officers to manage major acquisition programs and with increased emphasis in the past few years placed on developing rewarding careers in project management, it would be reasonable to expect the project officer to assume responsibility for SAR contents.

We believe the project officer should prepare SARs and be held responsible for its reasonableness, completeness, and accuracy. Further, we believe the project officer should certify as to the credibility of the SAR.

#### DOD position

DOD's stated policy is that the project officer is responsible for preparing SAR and is accountable for its accuracy and completeness. The GAO recommendation would deny the service secretaries and the Secretary of Defense their responsibility for reviewing SAR before it is submitted to the Congress. Also the project manager is not always aware, at the time of SAR preparation, of the status of changes to his program being considered or made at higher organizational levels.

#### CONCLUSIONS

SAR is an information report and, as such, it is important that it provide full disclosure of the status of each program--cost, schedule, performance, pending decisions, and capabilities, and remain a short and precise report.

SAR improvements that we believe should be incorporated into Instruction 7000.3 are:

1. Performance characteristics should be related to mission requirements and an assessment provided as to the extent the system is expected to satisfy the mission requirements.

- 2. The status of related systems and key subsystems should be shown on SAR.
- 3. SARs should compare cost incurred, schedule milestones attained, and technical performance accomplished with what was planned for the same period of time and costs budgeted.
- 4. Precise criteria should be established for adding to and deleting from SARs all major acquisitions.
- 5. Planning estimates should be retained on SAR so that there is total visibility and trackability from program inception.
- 6. All costs which are to be expended for the benefit of the development and procurement of a weapon system should be included.
- 7. Considerable improvement could be made in the reporting of logistic support/additional procurement costs. They should be expanded to include all remaining procurement costs related to a program but not currently being reported as program acquisition costs. They should also be included in the cost section of SAR rather than being reported in a separate section.

In addition, this section on logistic support/additional procurement costs should include firm baselines established with footnotes indicating the basis for these baselines, and any changes from these baselines should be provided in the form of a variance analysis.

- 8. Significant pending decisions that may or could have a major impact on a program should be highlighted.
- 9. The cost, schedule, and performance thresholds established in the decision coordinating paper should be disclosed in SAR.
- 10. Responsibility for complete, reasonable, and accurate SAR preparation should be delegated to one individual, namely the project officer. The project officer should also certify as to the credibility of the SAR.

#### RECOMMENDATION

We recommend that the Secretary of Defense incorporate the improvements discussed in this report into DOD Instruction 7000.3 as soon as practicable.



# ASSISTANT SECRETARY OF DEFENSE WASHINGTON, D.C. 20301

FEB 5 1975

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

Dear Mr. Gutmann:

As requested in your letter of November 29, 1974, we have reviewed your draft report, Evaluation of the Selected Acquisition Reporting System (OSD Case 3957). Attached is a summary of DoD comments on each of the ten major recommendations for SAR improvement listed in the draft report. In many instances, our comments reflect the views and conclusions of the DoD SAR Review Group, which recently completed a comprehensive evaluation of these and other recommendations to improve the current SAR format and guidelines. A number of changes recommended by the DoD panel have already been implemented. The others have been incorporated in a draft revision to the SAR reporting instruction. This proposed revision will be discussed with you as soon as internal DoD coordination has been completed. Hopefully, your final report will be updated to reflect these developments.

With respect to the GAO suggestion concerning the initiation of SAR legislation, we do not consider such action necessary or warranted. We recognize that the SAR must be responsive to the needs of Congress. As in the past, our forthcoming revision to the SAR reporting instructions will incorporate the needs of the principal Congressional users, with whom all proposed changes will be discussed prior to their implementation.

Sincerely,

Tereme & M' llan

Enclosure
As stated



#### APPENDIX I

SAR Improvements Recommended by GAO in its Draft Report, dated November 29, 1974, 'Evaluation of the Selected Acquisition Reporting System' (Code 951117)

- 1. a. Recommendation Performance Characteristics should be related to mission requirements and an assessment provided as to the extent the system is expected to satisfy the mission requirements.
  - DoD Position The DoD agrees that the performance characteristics selected for use in the SAR should be specifically tailored to the system's mission requirements and thereby provide the basis for assessing the system's expected effectiveness in attaining its mission objectives. These are the guidelines provided to the Project Manager at the time his program is initially designated for SAR reporting. These are also the guidelines used by Service and OSD review authorities in approving the performance characteristics developed and submitted by the Project Manager. Normally, the final selection includes characteristics for which DCP thresholds exist, the principal performance requirements of the weapon system contract, and other significant characteristics. These are the performance characteristics by which the DSARC periodically reviews the program's progress. In view of the above, the DoD believes that current SAR performance characteristics generally conform with the requirements of the GAO recommendation. However, the DoD would agree to any additions which would correct known deficiencies of essential, mission-type characteristics. The examples cited by the GAO on Page 9 - 10 of its report do not identify the specific characteristics which it considers to be missing from the SAR's mentioned.
- 2. a. Recommendation The Status of related systems and key subsystems should be shown on SAR.
  - b. DoD Position By definition and policy, the line item composition and scope of SAR program acquisition costs are the same as those for the budget, FYDP, DCP and other DoD program documents on weapon system acquisition. This is essential for uniformity and comparability between DoD program documents. Thus, if certain related system and subsystem costs are not included in the program acquisition cost of a particular SAR system for budget, FYDP, and DCP purposes, they are likewise excluded from the SAR for that system. Such subsystems are considered and funded as separate programs. If there is a sufficient need for SAR type data on a particular related system or key subsystem not now included in an existing SAR, a separate SAR can be initiated to satisfy that need. It is for this reason that we have separate SAR's on SPARROW F, SIDEWINDER AIM-9L, HARPOON, and PHALANX. However, as the GAO has indicated, consideration is being given to revising present SAR guidelines to require the inclusion of a brief statement in each applicable SAR on the current status of key subsystems which are not covered by separate SAR's.

- 3. a. Recommendation SAR's should show a comparison of cost incurred, schedule milestones attained, and technical performance accomplished with what was planned for the same period of time and costs budgeted.
  - b. DoD Position This particular recommendation was considered at length by the DoD SAR Review Group. The panel determined that the SAR already contains ample information to indicate, from a program monitoring and management standpoint, the actuals and best estimates of program costs, characteristics, and milestones versus those planned in the appropriate baselines. Furthermore, demonstrated performance of essential operational and technical requirements is reported quarterly. The group concluded that inclusion of the planned date of achievement in the baseline and approved program columns, as the GAO suggests, would add information not singularly meaningful to system acquisition, complicate the present report format unnecessarily, increase the report size, and create confusion. The DoD agrees with the conclusions of the SAR Review Group.
- 4. a. Recommendation Precise criteria should be established for adding and deleting major acquisition to SAR.
  - b. DoD Position The DoD agrees that more precise criteria are needed for adding and deleting systems from SAR reporting. Thus, pursuant to the recommendations of the SAR Review Group, the DoD Instruction governing SAR reporting is being revised to provide that (1) addition of a new SAR will be automatic with DSARC II approval for the system to enter full-scale engineering development; (2) termination of SAR reporting will normally be considered where production of the system is 90% complete and the program is no longer a procurement budget line item. This will normally limit SAR coverage to those active major acquisitions which have reached the DSARC II milestone. It also meets the general criteria cited in the GAO's recommendation on this item and should encompass all of the weapon systems specifically identified therein.
- 5. a. Recommendation Planning estimates should be retained on the SAR so that there is total visibility and trackability from program inception.
  - b. DoD Position Planning estimates are created prior to the definition of the system configuration which can be priced with a reasonable confidence level, and prior to the SecDef decision (i.e., DSARC II) that he fully intends to pursue the program as an acquisition program. Many program characteristics change between the Planning Estimate (PE) and the Development Estimate (DE) to accommodate new threat predictions, engineering problems and the desired cost/performance trade-offs. The variance analysis or track of the Current Estimate must be to a relatable baseline. Past DSARC II, only the Development Estimate is this baseline.

For those interested in the Planning Estimate, it is normally available to users in earlier SAR reports and a one-time track between the PE

#### APPENDIX I

and DE will continue to be shown in the first SAR following DSARC II. An alternative to the GAO recommendation is still under active consideration within the DoD. This would require that the one-time track between PE and DE be included as an attachment to each SAR after it is initially reported.

- 6. a. Recommendation All costs which are expected to be expended for the benefit of the development and procurement of a weapon system should be included.
  - DoD Position On the basis of the specific examples and the justification which the GAO uses to support it, this recommendation appears to deal principally with the inclusion of RDT&E costs for associated Defense armament in those SAR's which now exclude them. In this respect, the proposal is similar to the one covered in item 2 above relating to reporting of subsystems. As in the latter case, the DoD position is that such development costs are not included in the SAR program cost since, by definition and policy, they are not part of the approved program acquisition cost of the weapon system for purposes of the budget, FYDP, DCP and any other DoD program document dealing with system acquisition. The basic criteria for determining whether or not to include armament research in weapon system cost is the uniqueness of the armament to that system. When it is finally determined that the associated armament is in fact unique to the weapon system, all costs for that armament, RDT&E as well as procurement, will be added to the SAR program cost -- retroactively as required. With respect to the exclusion of Marine Corps requirements from the Army's STINGER SAR, the current guideline is that while the SAR program cost section basically reflects the Service Inventory Objective, it should also identify by footnote other procurement requirements in terms of quantities and costs. The STINGER SAR will be modified accordingly.
- 7. a. Recommendation Considerable improvement could be made in the reporting of Logistic Support/Additional Procurement Costs. These type costs should be expanded to include all remaining procurement costs related to a program but not currently being reported as program acquisition costs. These type costs should be included in the cost section of the SAR rather than being reported in a separate section.
  - DoD Position The need for continued reporting of Logistic Support/
    Additional Procurement Costs in the SAR and the types of costs to be included therein were extensively examined by the DoD SAR Review Group. Its findings were that the types of costs now reported in this section of the SAR are unrelated to acquisition costs and are outside of the direct control of the Project Manager. Its recommendation was to limit SAR cost reporting to "Acquisition" costs and to discontinue the Logistic Support/Additional Procurement Cost section of the SAR. As the DoD improves its capability to estimate life cycle costs by weapon system, consideration may be given to including these estimates in the SAR.

- 8. a. Recommendation Significant pending decisions that may or could have a major impact on a program should be highlighted.
  - b. DoD Position The DoD agrees that pending decisions that may have a major impact on a program should be highlighted in the SAR's. However, it should be noted that the SAR reflects the currently approved program. This includes program decisions made via the DCP/DSARC processs, PBD's, reprogramming actions or Secretary of Defense memoranda on a specific program. Decisions made in the PDM process will not be reflected until reviewed further during the PBD process. The SAR instruction revision will require that a general description of program changes be identified in the Highlights section of the report.
- 9. a. Recommendation The cost, schedule and performance thresholds established in the Decision Coordinating Paper should be disclosed in the SAR.
  - b. DoD Position The DoD does not agree with this recommendation. The system Project Manager is already required to include program baseline and current estimate data on the more significant DCP threshold items relative to performance, schedule, and cost. In addition, he is required to report actual or anticipated breaches of DCP thresholds on the Summary Page of the SAR as early as possible. Except for such breaches, there is no clear need for identifying and reporting on a quarterly basis the specific DCP thresholds. To do so would be inconsistent with existing policy of keeping the SAR a top-level and concise summary report. To the extent that Congressional users have a need for specific DCP threshold data on a given program, a copy of the DCP can be made available for this purpose.
- 10. a. Recommendation Responsibility for complete, reasonable, and accurate SAR preparation should be delegated to one individual, namely the project officer. The project officer should also certify as to the credibility of the SAR.
  - b. DoD Position - The DoD agrees that the responsibility for SAR preparation be delegated to the Project Manager who should be held accountable for its accuracy and completeness. In fact, the Project Manager is assigned this responsibility at present. However, the SAR is specifically defined as a Service report to the Secretary of Defense which is transmitted to the Congress on a regular basis. This assigns overall responsibility for the report to the Service Secretary who has delegated a major share of it to the Project Manager. However, the Service Secretary has elected to retain the responsibility for reviewing the SAR prior to its submission to OSD and the Secretary of Defense has assumed the responsibility for reviewing the Service report prior to its transmittal to the Congress. The GAO recommendation would deny to the Service Secretaries and the Secretary of Defense the responsibilities which rightfully belong to them. In addition, the Project Manager is no always aware, at the time of SAR preparation, of the status of changes to his program being considered or made at higher organizational levels.

## APPENDIX II

## PRINCIPAL OFFICIALS RESPONSIBLE

## FOR ACTIVITIES DISCUSSED IN THIS REPORT

		enure of		e <u>'o</u>
DEPARTMENT OF DEFENSE				
SECRETARY OF DEFENSE:  James R. Schlesinger  Vacant  Elliot L. Richardson  Melvin R. Laird	May Jan.	1973 1973 1973 1969	July May	nt 1973 1973 1973
ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER): Terrence E. McClary	June	1972	Prese	nt
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS): Arthur I. Mendolia Hugh McCullough (acting) Barry J. Shillito	June Jan. Jan.	1973 1973 1969	Prese June Jan.	1973
DEPARTMENT OF THE ARMY				
SECRETARY OF THE ARMY: Howard Callaway Robert F. Froehlke		1973 1971		
COMPTROLLER OF THE ARMY: Gen. John J. Kjellstrom Gen. Edward M. Flanagan		197 <sup>1</sup> 4 1973		nt 1974
DEPARTMENT OF THE NAVY				
SECRETARY OF THE NAVY: J. William Middendorf, II Vacant John W. Warner	${\tt Apr}_{\:\raisebox{1pt}{\text{\circle*{1.5}}}}$	1974 1974 1972		1974
COMPTROLIER OF THE NAVY: Gary D. Penisten Adm. Sam H. Moore (acting) Robert D. Nesen	Oct. May Oct.	1974	Prese Oct. Apr.	1974

## APPENDIX II

Tenure	of	office
From		To

## DEPARTMENT OF THE AIR FORCE

SECRETARY OF THE AIR FORCE: John L. McLucas Dr. Robert C. Seamans, Jr.	1973 1969	Present May 1973
COMPTROLLER OF THE AIR FORCE: Gen. Joseph R. DeLuca Gen. Duward L. Crow	1973 1969	Present Oct. 1973

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