



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

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The Honorable F. Edward Hebert  
Chairman, Committee on Armed Services  
House of Representatives



Dear Mr. Chairman:

This is in response to a request from your office for a brief history, including our past and present recommendations and Department of Defense (DOD) actions taken in response to our recommendations, of the DOD Selected Acquisition Report (SAR).

As you know, the SAR improvements resulted not only from our recommendations but also from those of the Armed Services and Appropriations Committees of the Congress as well as DOD actions. The SAR improvements that we believe warrant early consideration by your Committee and DOD follow.

1. Precise criteria should be established for adding and deleting major acquisitions. (See pp. 9 and 10.)
2. Planning and development estimates that may change should not be deleted for any reason. SARs should contain a record of all estimates so that there is total visibility and trackability from the program's inception. (See p. 10.)
3. There is an undue delay in submitting SARs to top management through DOD. For several years SARs have been submitted to the Congress nearly 3 months after the "as of" dates. (See pp. 3, 4, and 9.)
4. All program costs should be included. A number of systems under development include only research and development costs. Procurement costs are excluded. Costs for these systems are therefore understated on SARs, and other systems are kept below the dollar criteria for consideration for SARs. (See p. 11.)
5. SARs 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. (See p. 9.)

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#### ORIGIN AND PURPOSE

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

The SAR system's initial purpose was to keep its sponsor, the Assistant Secretary of Defense (Comptroller), apprised of the progress of selected acquisitions and to compare this progress with the planned technical, schedule, and cost performance.

During 1968 the SAR was in an experimental stage; only eight programs were reported on. In early 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. After all parties concerned held discussions, they decided that SARs would be used to advise top DOD management and the Congress of the progress of major acquisitions. As a result of this decision, the SAR became and remains the key recurring summary report from project managers and the services to inform the Secretary of Defense and the Congress on the progress of major acquisition programs.

#### INTEREST AND IMPROVEMENTS

Since inception the SAR system has been considerably changed and improved. During this time we have worked with DOD and the congressional committees on improving the system.

#### CONGRESSIONAL OPINION OF THE SAR SYSTEM

The following statements convey the general congressional feeling toward the SAR system.

The House Committee on Armed Services, in its report (91st Cong., 2d Sess.), of April 24, 1970, stated:

"With valuable suggestions made by the Comptroller General, the SAR's are being improved to the point where they can become a significant aid to better program management.

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"The manner in which these SAR's are presented to the Committee, however, leaves much to be desired.

"The Department of Defense has sometimes arbitrarily eliminated statistical information or otherwise altered the material submitted to the Committee."

\* \* \* \* \*

"The Committee is, likewise, disturbed by the timeliness with which these SAR's are submitted to the Committee by the Department of Defense. In many cases the Committee has not received the SAR's, \* \* \* until as much as three months after the close of the reporting period. This greatly lessens their effectiveness to the Committee, particularly during the period when the annual authorization is being considered."

\* \* \* \* \*

"In its attempt to gain a more detailed portrait of military spending, the Committee has become concerned about the inconsistency of various reporting and estimating methods in relation to weapons costs."

"\* \* \* The Committee has been presented with estimated unit costs for aircraft that vary by millions and millions of dollars, depending upon what costs are included or excluded, or what procurement level is provided, and, in some cases, on who is making the estimate. The Committee directs that the Department of Defense determine a consistent cost estimating procedure to be used by all departments \* \* \* to provide a clear display of total program costs and unit costs of weapon systems.

"The Committee is also concerned about the lack of consistent procedures in making long-range cost projections. \* \* \* Since the fact of inflation is undeniable, it is obvious that an alleged cost growth will greet the program again next year. \* \* \* The Committee believes that to make realistic long-range projections which could be truly useful to the Congress it is necessary to have some realistic measure of inflationary trends and the Committee believes that consistent factors should be used in all programs. \* \* \*"

The Senate Committee on Armed Services, in its report (S. Rept. 93-100) (H. R. 100-100), dated:

"The Committee on the reports received by the Department of Defense on the progress of the programs with a total value of approximately \$1.6 billion have been submitted to the Committee. The Committee has noted the progress of the programs. The Department's report and information for the fiscal year 1972 subject requested. Instruments to these reports have done much to improve the data and additional instruments are expected."

Most recently, the House Committee on Appropriations in its report (H. Rept. 93-100) of September 11, 1971, stated:

"The committee finds it necessary to require improvement in the quarterly Selected Acquisition Report (SAR) in several respects, beginning with the timeliness of their submission. \* \* \* the military departments and OSD [Office of the Secretary of Defense] have had sufficient time to familiarize personnel with the reporting document and to institute the mechanics and required staff for a more timely submission. There is little reason for the inordinate delays experienced in submitting SARs to the Committee."

\* \* \* \* \*

"The Committee has noted that the initial development estimates and the initial planning estimates are being changed in the SARs. \* \* \* The initial planning estimate is the first cost estimate that the Department of Defense brings to Congress for authorization and appropriation. It is recognized these early cost estimates may be incomplete but they should remain as data baselines of program cost and should not be deleted from the report."

"The section relating to additional procurement items should be improved. There should be three columns and five footnotes indicating the status of the baselines, and any changes from the baselines should be provided in the form of a narrative summary."

"In the summary statement, no mention should be made as to the probability of the weapon system."

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achieving its primary mission or meeting original contract specifications. While the SAR does provide certain milestones, \* \* \* it does not provide sufficient data indicating the current status of the system development versus where it was planned to be at that given point in time."

\* \* \* \* \*

"Performance characteristics should be tailored to the specific key points of the weapon system, rather than uniform performance characteristics for a class of weapon system."

\* \* \* \* \*

"Current SARs do not now show total weapon system costs. For example, the cost of developing and manufacturing nuclear warheads by the Atomic Energy Commission (AEC) is not included in the weapon system cost even though the warhead and its cost is as pertinent as the weapon's propulsion system."

\* \* \* \* \*

"Many of the foregoing changes have been discussed during hearings last year and this year. \* \* \* Therefore, appropriate changes are to be made in internal instructional documents and memoranda on the SAR reporting system to conform to the foregoing Committee request."

OSD has told us it has met with the House Committee on Appropriations regarding the Committee's needs and desires for data and SAR improvements. As a result of these discussions, DOD has taken actions to (1) send the Committee advance copies of SARs before submitting the final revisions, (2) provide additional information by including AEC costs in those SARs when applicable, and (3) reflect performance characteristics in future SARs tailored to specific key points of the system rather than uniform characteristics for a class of weapon systems. Otherwise DOD believes the current DOD Instruction 2000.5 satisfies the Committee's desires. Other areas of Committee interest will be discussed before changes are made.

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DOD IMPROVEMENTS IN SARS

Since the SAR system was established in 1968, a great deal has been accomplished and the system has been considerably changed. DOD Instruction 2000.3 was revised in December 1969, June 1970, September 1971, and April 1972 to incorporate changes in the standard format and instructions to be followed by DOD components in responding to Secretary of Defense requirements for summary reporting of technical, schedule, quantity, and cost information concerning major acquisitions. Some of the principal improvements are cited below.

Definition of costs

In response to the House Armed Services Committee report of April 24, 1970, pointing out that DOD should provide a clear display of total program and unit costs of weapon systems, DOD developed a fact sheet concerning weapon system cost displays. It was submitted to the Committee and the services on May 19, 1970. DOD guidance to the services stated that the terms defined in the fact sheet should be uniformly applied but that DOD recognized that some realignment will be necessary within certain procurement line items to provide for complete consistency.

The fact sheet stated:

"\* \* \* It is now our intent that this special vocabulary shall consist of four (4) terms which, if uniformly applied and understood, should go a long way towards alleviating the difficulties the committee has experienced. These terms are 'Flyaway Cost,' 'Weapon System Cost,' 'Procurement Cost,' and 'Program Acquisition Cost.' \* \* \*"

"The terms 'Flyaway Cost,' 'Weapon System Cost,' and 'Procurement Cost' have application to the appropriations within the 'Procurement Title' of the DOD Authorization and Appropriation Bills. The basic method for presenting procurement requirements is the Weapon System Line Item Listing (Exhibit P-1) for the Appropriations Bill and its counterpart Section 412 Weapon System Line Item Listing for the Authorization Bill. It is intended that the line item should include all procurement costs required to acquire and initially deploy a weapon system except for its complement of initial spares, which is budgeted as part of a separate line item covering all initial spares for all systems. Within the individual

weapon system line item, those costs which are related to the production of a usable end item of military hardware are commonly referred to as 'Fly-away Costs.' This term has evolved in connection with aircraft and missile programs, although it should be understood that it equates to what could be called 'Rollaway' in the case of vehicles or 'Sailaway' in the case of ships. It includes the cost of the basic unit to be fabricated (airframe, hull, chassis, etc.), the propulsion equipment, electronics, ordnance, and other installed government furnished equipment.

"The balance of the individual weapon system line item contains those peculiar procurement costs required to deploy a system, such as ground support equipment, training equipment, publications, technical data, contractor technical services, etc. The sum of these two segments within the line item is referred to as 'Weapon System Cost.' As stated above, in order to arrive at the total amount within the Procurement Title related to the acquisition of a weapon system, we must add the associated initial spares to the 'Weapon System Cost.' The sum of these two amounts represents the 'Procurement Cost' which appears in the program acquisition cost section of the Selected Acquisition Report (SAR). This section of the SAR also contains those 'Research, Development, Test, and Evaluation (R,D,T&E)' and 'Military Construction (MILCON)' costs related to the acquisition of a weapons system. The sum of the RDT&E, MILCON, and 'Procurement Cost' represents the term 'Program Acquisition Cost.'"

#### Application of inflation

Also, in response to the Secretary of Defense's (Comptroller's) report of April 24, 1970, pointing out that some realistic measure of inflationary trends is necessary, DOD issued a memorandum on June 30, 1970, entitled "Weapon System Costing." It stated, in part:

"cost estimates will reflect the best estimates of the amounts ultimately to be paid, specifically incorporating anticipated changes in future prices. Wherever practicable, this will be accomplished on the basis of specific data applicable to a given system, considering such factors as contract provisions, labor agreements, productivity and quantity

changes, and the extent to which material is on hand or under fixed price contract. In other cases, it will be necessary to base the estimates on forecasts of changes in price levels."

\* \* \* \* \*

"The pricing policies set forth in this memorandum will be reflected \* \* \* in the SAR's as of September 30, 1970 \* \* \*."

#### Changes in data presentation

The SAR has been revised numerous times to provide for easier reading and analysis. The initial SARs prepared in 1968 and 1969 did not identify the program cost variance explicitly, and, as a result, cost growth could not be segregated by its various causes. Our February 6, 1970, report (B-163058) suggested that DOD give increased attention to the problem of identifying specific cost growth factors. Consequently DOD revised its instructions on June 12, 1970, to provide nine categories of cost variance for use in the SAR system.

In 1970 and 1971 SARs were rather voluminous, some with 60 pages or more. DOD, recognizing that management does not have the time to review and analyze such documents, revised DOD Instruction 7000.3 on September 13, 1971, to provide that no SAR would have more than 13 pages unless the Assistant Secretary of Defense (Comptroller) grants a special waiver and that 10 pages or less is desirable.

On May 25, 1972, the Assistant Secretary of Defense (Comptroller) issued new reporting requirements for the Logistic Support/Additional Procurement Cost section of the SAR. This letter stated, in part, that in the interest of uniformity and clarifying and simplifying the reporting requirement, only modification and component improvement costs will be reported. The instructions also stated that the period covered by these costs will be from program inception through either the last year of the Five Year Defense Program or the last year of procurement of the basic system, whichever is later.

#### OUR EVALUATIONS OF SAR SYSTEM

In 1969 we became involved in evaluating the SAR system and working with DOD and congressional committees on improving it.



Results of our initial review of the system, undertaken in August 1969, were published in our report entitled "Status of the Acquisition of Selected Major Weapon Systems" (B-163058, Feb. 6, 1970).

That report concluded that the system, in concept, represented a meaningful management tool for measuring and tracking the progress of major acquisitions. Like any new reporting system, the SAR system had some serious shortcomings. SARs had failed to show such significant information as (1) a comparison of demonstrated performance with that specified in the contract, (2) the status of key subsystems essential to mission accomplishment, (3) costs incurred in relationship to the costs planned to be incurred, (4) significant pending decisions that may affect the program, and (5) a comparison of quantities delivered with those scheduled to be delivered at the same time.

Results of our second review of the SAR system, undertaken in August 1970, were published in our report entitled "Acquisition of Major Weapon Systems" (B-163058, Mar. 18, 1971). That review confirmed that improvements had been made since our first report was issued but that improvements were still needed. We concluded that SAR still did not (1) contain a summary regarding overall acceptability of the weapon for its mission, (2) recognize the relationship of other weapon systems complementary to the system, or (3) reflect the status of programs.

In August 1971 we initiated our third review of the SAR system, which was directed toward evaluating its value to management. While DOD was continuing to improve the system, two principal problems identified related to changing baselines for measuring progress and credibility of cost estimates. We concluded that static baselines should be reported and maintained in the SAR and that complete and realistic cost estimates were needed. Both are essential in evaluating the progress of major acquisitions and in making decisions on the system's future progress. In addition, we concluded that (1) a recurring problem was the undue delay in submitting SARs to top management through DOD and (2) the criteria for designating weapon systems for SAR reporting should be reassessed, to improve management visibility on additional major weapon systems. The conclusions were published in our report entitled "Acquisition of Major Weapon Systems" (B-163058, July 17, 1972).

In February and March 1973 we issued 68 staff studies to the Congress evaluating SARs on applicable systems. An

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analysis of our work indicates that more precise criteria should be established for including major acquisitions for SAR reporting. DOD Instruction 7000.5 provides 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 RDT&L or \$200 million for procurement. Other systems not qualifying under these dollar guidelines may be designated for SAR coverage by the Secretary.

Though criteria for SAR reporting should include dollar limitations, the above dollar criteria by themselves may preclude systems critical to the national defense from being included or even from being considered for SAR reporting solely on the basis of minimum dollar limitations. Thus the urgency of need should also be included in the criteria for SAR reporting. In addition, factors should be included in the criteria to specify when in the acquisition process systems should be added or deleted.

DOD has no formal process for deciding whether a major system should be included in the SAR system. We were informed that systems are selected for the SAR system on the basis of recommendations from the services or OSD and/or on the basis of interest in a system by the Congress or GAO.

Establishing and monitoring baselines for major acquisitions continues to be one of the most significant problems which must be resolved to improve the SAR as a key information report. To measure program progress, management must have a baseline. At the outset of any program, a planning estimate is established and periodically changes as the program progresses. The initial planning estimates could be reported as ranges of dollars. Once the planning estimate becomes static, it should not be changed and should remain on the SAR for tracking purposes.

A similar approach could be taken with the development estimate. It could be labeled as "initial" and stated as ranges of probable cost until the development contract was awarded. Subsequently, the development estimate should remain static.

Adding a production estimate to SARs should also be considered. This would be "initial" until the production phase begins, just after DSARC III, and would become static once the production contract is awarded.

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The current estimate through completion would remain as is. This approach should be taken with the Logistic Support/Additional Procurement cost section of SARs.

In this manner, the estimates would be more meaningful to SAR readers and users. There would be greater visibility over the life of the program because historical tracking would be enhanced.

Also certain SARs prepared for systems in the early stages of acquisition did not show procurement costs. SARs should include all program costs, even in these early stages.

As you know, we are continuing to monitor a number of major acquisitions and will make further suggestions to DOD and the Congress to improve SARs.

We trust that this information will satisfy your needs.

Sincerely yours,



Comptroller General  
of the United States

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