

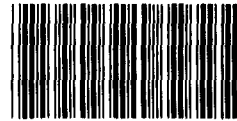
GAO

Report to the Honorable
Andy Ireland, House of Representatives

September 1992

WEAPONS ACQUISITION

Implementation of the 1991 DOD Full Funding Policy



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**National Security and
International Affairs Division**

B-248918.1

September 24, 1992

The Honorable Andy Ireland
House of Representatives

Dear Mr. Ireland:

In response to your request, we reviewed the Department of Defense's (DOD) implementation of a new full funding policy for programs being reviewed by the Defense Acquisition Board (DAB). Under the policy, acquisition programs identified as having higher costs than reflected in the Future Years Defense Plan (FYDP) will not be approved to proceed to the next acquisition phase until the sponsoring service identifies suitable offsets, such as budget reductions to other programs, to cover the higher costs.

Our objectives were to review all major DAB decisions since the policy went into effect to determine (1) the impacts and effectiveness of the policy; (2) which programs had shortfalls and the basis for estimating these shortfalls; and (3) whether offsets to these shortfalls had been identified, approved, and duly incorporated into the FYDP data base.

Background

Historically, DOD has overestimated the amount of future funding that will be available for specific weapons acquisitions and/or has underestimated the cost of such weapons. The annual funding shortfall or instability created by this combination of factors has resulted in major acquisitions being delayed, reduced, or terminated. These actions usually increase program costs.

The Under Secretary of Defense for Acquisition, as Chairman of the DAB, reviews and approves major programs as they move through the acquisition process. In some instances, these reviews find that the services understate their cost estimates. Prior to the new policy, the Under Secretary would direct the services to increase these cost estimates and budget, but the services were not required, as a condition for the Under Secretary's approval, to identify from where in the budget or FYDP the increased funding would come. Funding shortfalls identified during DAB reviews were normally addressed as part of the biennial budgeting process. However, such adjustments may not be reflected in the budget or FYDP for over a year.

To improve consistency between the FYDP and actual funding requirements, the Deputy Secretary of Defense and the Under Secretary for Acquisition instituted a new full funding acquisition policy. The policy required, as a condition of approval to proceed to the next acquisition phase, that the services identify FYDP funding reductions to offset any increased funding requirements identified during a DAB review. Early identification of program offsets enables program managers to adjust their program plans and schedules to minimize the effects of funding reductions.

In a June 1991 memorandum to the DOD Comptroller, the Under Secretary for Acquisition announced the full funding policy and requested the Comptroller's assistance in establishing a mechanism to obtain (1) formal approval of outyear funding changes resulting from DAB reviews and (2) regular updates to the FYDP to reflect the agreements reached during those reviews.¹ In a July 1991 memorandum that implemented the policy, the Deputy Secretary directed the services to provide the Under Secretary for Acquisition information regarding their planned funding offsets once the DAB determined the reviewed program was not fully funded in the FYDP. The Under Secretary's October 1991 memorandum set forth the format for providing such information.

Funding issues associated with some programs are resolved primarily through internal program reductions prior to or during the DAB. Our review of the new policy focused on the programs with funding shortfalls identified in the DAB decision memorandums. Appendix I lists all of the programs reviewed by the DAB between June 1991 and June 1992.

Results in Brief

According to DOD officials, the increased management emphasis and attention as reflected in the new policy help ensure that program funding shortfalls are addressed in a more timely manner. Our review indicated that under the new policy DOD has increased its efforts to have the services address potential funding shortfalls during the normal budget process. Without continued management emphasis, we believe the new policy, like the process before it, would not be effective.

The new policy requires the services to identify "potential" offsets to a program's funding shortfalls before proceeding to the next acquisition phase. However, as in the past, actual offsets or program reductions are

¹The Under Secretary also identified in this memorandum 14 programs that were underfunded in the 1992-97 FYDP. An additional eight programs were added to the Under Secretary's list at a later date.

made as part of the budget process—which could be many months after the program has been approved to proceed.

A mechanism to obtain early formal approval of outyear funding changes and regular FYDP updates reflecting agreements reached on DAB reviewed programs, as the Under Secretary initially envisioned, was not developed. DOD officials told us that such a mechanism was not practical and noted that subsequent implementing memorandums by the Deputy Secretary of Defense and Under Secretary did not include this requirement.

According to the Under Secretary's Acquisition Decision Memorandums, only 3 of the 16 programs that the DAB reviewed between June 1991 and June 1992 had unresolved funding shortfalls—the Air Force's Advanced Tactical Fighter, F-22; the Navy's T-45 Training System, T-45TS; and the F/A-18 Naval Strike Fighter upgrade, F/A-18 E/F. The extent of the funding shortfalls were based on the judgment of the Under Secretary, after considering program cost estimates provided by the services and other components within DOD.

Following the F-22 DAB review, Air Force officials identified programs that could be reduced to cover the F-22 funding shortfall. The amounts by which each program would be reduced to cover the shortfall were not provided. The funding adjustments that were ultimately approved and incorporated in the FYDP were not those initially identified. According to Air Force and Office of the Secretary of Defense officials, the program was subsequently fully funded through a combination of internal program adjustments and offsets taken during DOD's normal budget process.

Identification of offsets for the T-45TS program were not provided at the time of the DAB review, but the Navy Acquisition Executive assured the Under Secretary before the DAB review that the funding shortfall would be corrected in the 1994 Program Objectives Memorandum. The Under Secretary deferred approval of the program's movement to the next acquisition phase pending the Navy's submission of a revised funding plan. The Navy initially made internal program adjustments to address the shortfall. However, the reductions were not adequate to cover the shortfall, and during the budget process, reductions to other unidentified programs were made to cover the remainder of the shortfall.

According to DOD officials, offsets for the F/A-18 E/F program were not identified at the time of the DAB review. The Under Secretary approved the program's movement into the engineering and manufacturing development

acquisition phase² subject to submission of a fully funded program in the Navy's Program Objectives Memorandum. According to officials in the Office of the Secretary of Defense, the shortfall had been addressed by internal program adjustments such as transferring planned funding from production to development and offsetting reductions to unidentifiable programs.

Efforts to Implement the 1991 Policy

Funding shortfalls under the new policy for the F-22, T-45TS, and the F/A-18 E/F programs were not addressed significantly different from past practices. Under the new full funding acquisition policy, the services are required at the time of the DAB, or soon thereafter, to identify potential reductions or offsets to other programs to cover funding shortfalls identified during the DAB review. Although potential offsets may be identified under the new policy, actual offsets, as in the past, are not identified and made until later as part of DOD's normal budget process—the Planning, Programming, and Budgeting System. Accordingly, as in the past, updates to the FYDP are only made during the budget process “windows”—three times during a budget year and only once during the off year or second year of the biennial budget.

The budget process, in these three cases, did not link the funding increases used to cover identified shortfalls with specific reductions in other programs. Consequently, there were no audit trails to show where funding offsets were actually taken in these cases.

In a June 1991 memorandum, the Under Secretary for Acquisition indicated that the new policy would include a mechanism to obtain formal approval of outyear funding changes and regular updates of the FYDP to reflect DAB funding agreements. According to officials from the Office of the Under Secretary, such a mechanism was discussed within DOD and later rejected. Subsequent DOD policy guidance issued by the Deputy Secretary in July 1991 and the Under Secretary in October 1991 did not make any reference to the FYDP update provision contained in the June 1991 memorandum.

Officials from the Office of the Secretary of Defense said that they believe the policy has been successful due to increased management emphasis on service accountability for program funding decisions. According to these

²This phase is hereafter referred to in this report as the engineering phase.

officials, this increased emphasis has increased fiscal discipline in the weapons acquisition process.

Based on our review of the F-22, T-45TS, and F/A-18 E/F, there does appear to be an increased emphasis on assuring that funding shortfalls are addressed by the services during the earliest possible point in the normal budget process. For example, according to DAB documentation, both the Navy and Air Force wanted to address the shortfalls in the T-45TS and F-22, respectively, in their 1994 Program Objectives Memorandums instead of the next budget window—the 1993 amended President's Budget. Recommendations in DAB files, which were eventually taken, proposed having the services fix the funding shortfalls in the fiscal year 1993 budget instead of in the 1994 Program Objectives Memorandum. Consequently, the effectiveness of the new policy in assuring weapons programs are being fully funded in the FYDP is dependent largely on the level of management emphasis. Absent this increased management involvement, we believe the new policy, like the process before it, may prove ineffective.

Programs With Funding Shortfalls and the Basis for Determining These Shortfalls

As of June 1992, the DAB had reviewed 16 programs since the new full funding policy was announced in June 1991. Three of the 16 programs had unresolved funding shortfalls identified in the Under Secretary's Acquisition Decision Memorandums³—the F-22, T-45TS, and the F/A-18 E/F aircraft programs.

DOD officials told us the Under Secretary, as Chairman of the DAB, makes the final decision regarding the programs' estimated costs and the amount of the shortfall in the FYDP. Cost estimates prepared by the services and other DOD components are considered. To the extent differences exist, the Under Secretary decides on the final estimate and related shortfall.

According to DOD officials, program cost estimates are often based, in part, on a number of assumptions and variables that often involve management determinations and judgments. Accordingly, the final DAB funding decision, including any funding shortfall identified, is based on determinations and judgments of the Under Secretary. The following discusses the basis for determining the shortfalls for the F-22, T-45TS, and F/A-18 E/F programs.

³These memorandums are signed by the Under Secretary and document decisions made during the DAB as well as requirements to allow the program to proceed in the acquisition process.

The F-22 Funding Shortfall

The DAB reviewed the F-22 program in June and July 1991 to determine the program's readiness to begin the engineering phase. The review revealed differences among the budgeted funding levels, the program office estimate, and the Air Force independent cost estimate. The program office estimate at the time of the DAB review was \$1.5 billion higher than the budgeted levels in the 1992-97 FYDP. Moreover, the independent cost estimate was about \$2.4 billion higher than the Air Force's budgeted levels during the same FYDP period.

In its June 1991 report, the Cost Analysis Improvement Group, within the Office of the Secretary of Defense, agreed with the Air Force's independent cost estimate of \$2.4 billion as the engineering phase funding shortfall for the FYDP period. Most of the shortfall, according to program office and Cost Analysis Improvement Group officials, was to cover technical risk in the program.

Air Force and Office of the Secretary of Defense officials told us that the funding shortfall for the total engineering phase of the F-22 was \$2.7 billion, an increase from about \$13 billion for the total engineering phase to \$15.7 billion. Using the Air Force and Cost Analysis Improvement Group's independent estimates, approximately \$2.4 billion of the shortfall fell within the FYDP while the remaining \$300 million fell outside the FYDP years.

Officials from the Office of the Secretary of Defense told us that the Under Secretary agreed that the program's engineering phase cost estimate should be increased to \$15.7 billion, but concluded that the program was underfunded by \$1.9 billion in the FYDP and the rest of the \$2.7 billion engineering funding shortfall, approximately \$800 million, fell outside the FYDP. These officials also said that the Under Secretary's estimate of the shortfall was lower during the FYDP because the Under Secretary accepted the Air Force's estimate of sequencing of the program—that is, how the program funds were spread over the years. They further told us that the \$1.9 billion shortfall amount was decided by the Under Secretary following consultations with the Secretary of the Air Force.

The T-45TS Funding Shortfall

On June 26, 1991, the T-45TS program was reviewed by the DAB for approval to start low-rate initial production. The Cost Analysis Improvement Group and the DOD Comptroller's office identified a funding

shortfall of approximately \$400 million over fiscal years 1992-97. A DAB Conventional Systems Committee⁴ briefing document showed the program was underfunded by about \$415 million through the same FYDP⁵ for procurement and military construction. This committee also indicated that it anticipated additional program underfunding beyond the FYDP.

The Under Secretary deferred low-rate initial production approval pending Navy submission of a fully funded program. According to a program official, the Navy agreed to reduce the T-45TS program funding requirements at the time of the DAB. In December 1991, the Navy submitted a revised program to the Under Secretary, which was approved in April 1992.

The F/A-18 E/F Funding Shortfall

The F/A-18 E/F program first appeared in the President's Budget submitted in February 1991. According to Navy officials, the cost estimated for the program, at that time, was a rough estimate based on preliminary configuration assumptions.

The DAB conducted a milestone IV review—Major Modification Approval—on the F/A-18 E/F program on May 6, 1992. The Cost Analysis Improvement Group, the Navy, and the DOD Comptroller's office identified a funding shortfall of approximately \$806 million during fiscal years 1994-97 and \$1.1 billion over fiscal years 1994-2001. According to officials from the Office of the Secretary of Defense, the increase in engineering and manufacturing development requirements resulted from having new estimates that were based upon a better definition of program requirements and refinement of the aircraft configuration.

The Under Secretary approved the modification program and authorized entry into the engineering and manufacturing development phase subject to submission of a fully funded F/A-18 E/F program in the Navy's Program Objectives Memorandum. According to an official in the DOD Comptroller's office, the Navy submitted a fully funded program in its Program Objectives Memorandum on June 1, 1992.

⁴This advisory review group, subordinate to the DAB, reviews the program before the DAB review to make independent assessments and recommendations to the DAB.

⁵An additional \$150 million shortfall in operation and maintenance was identified by the committee. However, this amount, per a program official, was not handled by the T-45TS program office. The official stated that the shortfall was resolved by the Chief of Naval Education and Training Office in Pensacola, Florida.

Extent Offsets Were Identified, Approved, and Incorporated Into the FYDP

The funding shortfalls for both the F-22 and T-45TS programs were addressed through a combination of internal program reductions and offsetting reductions to other programs. According to statements made by Navy and Office of the Secretary of Defense officials, the funding shortfall for the F/A-18 E/F was addressed in a similar manner.

To cover the F-22 shortfall, candidate programs that could be used as offsets were identified at the time of the DAB, and the program was subsequently approved to proceed into the engineering phase. The Under Secretary deferred approval of the T-45TS pending submission of a fully funded plan. Offsets for both programs were subsequently made several months later as part of the normal budget review process. Since many program funding changes and adjustments are made during the normal budgeting process, increases in one program, according to DOD officials, could not be traced to a specific reduction in another.

F-22 Funding Increase

The \$1.9 billion shortfall for the F-22 program's engineering and manufacturing development phase was addressed by shifting \$1.1 billion available from the F-22's procurement fund to the development shortfall. Air Force officials stated that the same number of planes would be purchased, but some advance procurements and initial spares purchases were postponed until after the FYDP. Additional funding to cover the remaining \$884 million of the FYDP shortfall was to come from offsets or reductions to other Air Force programs.

In a July 25, 1991, letter to the Under Secretary, the Secretary of the Air Force acknowledged underfunding in the F-22 program and identified candidate programs to be reduced to cover the shortfall. The amount each program would be reduced was not provided in the letter.

According to officials in the Under Secretary's office, the F-22 program was allowed to proceed to the next milestone based on the Air Force Secretary's commitment to reallocate \$884 million in fiscal year 1993-97 funds from other programs to the F-22 program. As a result of this "gentlemen's agreement," the Under Secretary authorized the program to proceed into the engineering phase as well as to contract for long lead items for preproduction vehicles.

Officials from the Office of the Secretary of Defense and the Air Force Comptroller's office told us that funding for the F-22 engineering phase was increased \$1.9 billion during the 1992-97 FYDP period—\$1.1 billion

from procurement adjustments and \$884 million from offsets. However, according to an official in the DOD Comptroller's office, these offsets were not obtained from the programs identified in the Air Force Secretary's letter but rather from internal adjustments to DOD procurement funding levels across the board and from program terminations identified during the normal budget process.⁶

Our review of fiscal years 1992-97 funding for the F-22 showed that engineering phase funding was increased approximately \$1.4 billion during the FYDP rather than \$1.9 billion. Air Force officials told us that after the program was increased \$1.9 billion, other adjustments were made that reduced the program. For example, the Office of Management and Budget revised the inflation indexes, which reduced the program costs about \$273 million and the transfer of funding responsibility for functions such as contract management reduced F-22 program costs by approximately \$205 million.

Officials from the Office of the Secretary of Defense acknowledged that the F-22 still had an additional \$800 million shortfall beyond the 1992-97 FYDP. However, they said this shortfall would be addressed by the Air Force during the next budgeting cycle.

T-45TS Funding Adjustment and Ultimate Increase

Based on information provided by the Navy and the Cost Analysis Improvement Group, the Under Secretary concluded that the T-45TS program was underfunded and deferred approving low-rate initial production until the Navy submitted both a revised program baseline reflecting cost, schedule, and performance changes the Navy wished to make and a fully funded program.

Program officials told us that a \$415 million funding shortfall identified by the DAB was corrected by several reductions to the program. Specifically, they said (1) the inflation indexes used for the DAB estimate were revised in accordance with direction from the Office of Management and Budget thus reducing the program estimated cost by about \$78 million during the FYDP;

⁶DOD officials told us that DOD is not required to track those funds found internally and, in most cases, they were not able to trace what program reductions related to which program increases.

(2) elimination of support and training equipment associated with the closure of the Chase Field Naval Air Station⁷ reduced the program estimated cost by about \$88.5 million; (3) Navy's decision to delete the E-2/C-2 training requirement at the Pensacola Naval Air Station reduced costs by approximately \$200 million within the FYDP; and (4) reduction of the foreign exchange rate from \$1.78 per pound sterling to \$1.70 reduced the program cost by approximately \$76 million. These reductions totaled \$442.5 million or about \$27.5 million more than the \$415 million DAB estimated shortfall.

Even with these internal program reductions to offset the funding shortfall, there was still a net increase in the T-45TS total program costs for the FYDP years. Our review of the program's funding contained in the 1991 Selected Acquisition Report and 1992 FYDP showed that despite \$442.5 million in reduced funding requirements, the total program costs had increased approximately \$25.8 million during fiscal years 1992-97.

Navy officials stated that it was difficult to pinpoint why the program costs increased \$25.8 million after reducing the program's requirements by \$442.5 million. However, they stated that the majority of the increase was attributable to the addition of an aircraft cockpit upgrade and a production rate adjustment that occurred when the quantity was reduced from 300 to 268 planes.

According to an official in the Navy Comptroller's office, the funding that was added to the program for fiscal years 1992-97 was obtained from reductions in other programs that were identified during the Navy's 1991 budget review. In addition, approximately \$80 million was added to the Navy's procurement budget for the digital cockpit retrofit on the T-45TS—approximately \$33 million during the FYDP period. This amount is not included in the Selected Acquisition Reports or FYDP as part of the T-45TS program cost. Navy officials stated that this money was also obtained from offsets made during the budget review.

F/A-18 E/F Funding Increase

According to officials in the Navy and the Office of the Secretary of Defense, the \$806 million F/A-18 E/F shortfall for fiscal years 1994-97 was corrected in the Navy's fiscal year 1994 Program Objectives Memorandum. Officials in the Office of the Secretary of Defense told us that the shortfall was covered by transferring funds from the program's procurement

⁷This base was included on the Base Closure and Realignment list.

account and offsetting reductions to other unidentifiable programs. These officials told us that excesses in the F/A-18 E/F program's procurement funding were used to cover some of the program's shortfall. DAB documentation indicated that such excesses totaled \$1.1 billion during fiscal years 1995-97. Officials in the Office of the Secretary of Defense and the Navy told us that the F/A-18 E/F procurement excesses occurred because the program was going to be implemented on a slower schedule than was anticipated in the President's fiscal year 1993 amended budget.

We did not review data in the Navy's Program Objectives Memorandum to verify these statements. Navy officials told us that such information could not be provided to us. This information, according to one of these officials, could not be provided because it had not yet been incorporated in the President's Budget and formally submitted to Congress. We do not agree with the Navy position and are continuing our efforts to overcome such access problems.

Scope and Methodology

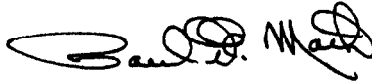
To obtain information for this report, we interviewed and obtained documentation from officials in the Departments of the Navy and Air Force and the Office of the Secretary of Defense. In addition, we reviewed criteria found in DOD Directives 5000.1 and 5000.2, the Deputy Secretary of Defense's July 2, 1991, policy memorandum titled "Fiscal Discipline in Programs Reviewed by the Defense Acquisition Board," the Under Secretary's June 3, 1991, and October 1, 1991, policy memorandums, "Stability of Acquisition Programs" and "Fiscal Discipline in Programs Reviewed by the Defense Acquisition Board," and information files in the Office of the Under Secretary of Defense for Acquisition. We also reviewed DOD's Selected Acquisition Reports, Congressional Data Sheets, and the FYDP to verify changes in program funding. However, it should be noted that Navy officials did not provide documenting evidence from their Program Objectives Memorandum to support their statements regarding what adjustments were made to offset the funding shortfalls. As noted previously, we are continuing our efforts to overcome such access to records problems.

Our review was conducted between January and August 1992 in accordance with generally accepted government auditing standards. We did not obtain fully coordinated DOD comments on this report. However, we discussed the information in the report with DOD and program officials, and their comments were included in this report where appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days from the date of this letter. At that time, we will send copies of this report to the Secretaries of Defense, Army, Air Force, and Navy and to other interested parties upon request.

Please contact me at (202) 275-4587 if you or your staff have any questions concerning this report. Other major contributors to this report are listed in appendix II.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Paul F. Math". The signature is stylized with loops and a long horizontal stroke at the beginning.

Paul F. Math
Director, Research, Development, Acquisition,
and Procurement Issues

Programs Reviewed by the Defense Acquisition Board Since the 1991 Full Funding Policy

Program	Date
Airborne Self-Projection Jammer	June 24, 1991
T-45 Training System	June 26, 1991
AX Attack Aircraft	June 28, 1991
Advanced Cruise Missile	July 1, 1991
Advanced Tactical Fighter Aircraft	June 27, 1991, and July 25, 1991
Strategic Sealift	August 30, 1991
Global Protection Against Limited Strikes	September 12, 1991
Advanced Antitank Weapon System-Medium	June 6, 1991
V-22 Tilt Rotor Aircraft	January 17, 1992
Upper Tier Theater Missile Defense System	January 21, 1992
NAVSTAR Global Positioning System User Equipment	January 22, 1992
Sensor Fused Weapon	March 16, 1992
Advanced Medium Range Air-to-Air Missile	April 23, 1992
F/A-18 E/F Aircraft	May 6, 1992
Two-programs: Joint Direct Attack Munition and Joint Standoff Weapon (formerly AIWS)	June 8, 1992

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