

GAO

Briefing Report to the Chairman,
Committee on Governmental Affairs
United States Senate

September 1986

ACQUISITION

Status of the Defense Acquisition Improvement Program's 33 Initiatives



131420

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ANNALS

OF THE
ROYAL SOCIETY OF LONDON
FOR THE IMPROVING
OF NATURAL KNOWLEDGE
AND ARTS



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General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

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September 23, 1986

The Honorable William V. Roth, Jr.
Chairman, Committee on Governmental Affairs
United States Senate

Dear Mr. Chairman:

As requested by your letter dated September 13, 1984, we reviewed the Department of Defense's (DOD's) implementation of the Defense Acquisition Improvement Program, also known as the "Carlucci Initiatives." You asked us to assess the effectiveness of the initiatives on the acquisition process in terms of their objectives to provide cost savings, shorten the acquisition process, increase readiness, and strengthen the industrial base. We recently reported¹ to you on our overall assessment of DOD's progress in implementing the improvement program. This report provides more details on the status of the program's 33 individual initiatives, and also highlights the results of the questionnaire used to obtain major weapons' program managers' views on the improvement program's effect. As agreed, we will provide a more detailed analysis of the questionnaire results in a separate report.

STATUS OF THE 33 INITIATIVES

Our analysis of various DOD reports and discussions of individual initiatives with key DOD officials indicated that 23 of the initiatives had not been fully implemented. We considered an initiative to be fully implemented when action plans had been carried out and mechanisms for monitoring results established. Tables 1 and 2 summarize our analysis of each initiative and our detailed comments about them are in appendix I. Table 1 lists the 10 initiatives which have been fully implemented. The expected benefits have been fully achieved on four initiatives and partially achieved on the remaining six. Table 2 lists the remaining 23 partially implemented initiatives which have not fully achieved the anticipated results. We do not discuss initiatives 1 and 23 separately because they address certain management principles and program implementation which are embodied in our discussion of the remaining initiatives.

¹DOD's Acquisition Improvement Program: A Status Report (GAO/NSIAD-86-148, July 1986).

Table 1: Status of the Fully Implemented Initiatives
and Results Achieved as of August 1985

No.	Initiatives Description	Results Achieved		Comments (page)
		Full	Partial	
3.	Multiyear procurement		X	7
8.	Appropriate contract type		X	24
15.	Funding flexibility		X	37
17.	Briefing and data requirements		X	39
24.	Reduce milestones	X		39
25.	Link acquisition/ budgeting		X	49
26.	Acquisition council	X		52
27.	Defense Acquisition Executive	X		53
28.	Thresholds for mile- stone reviews	X		39
29.	Integrate acquisition/ budgeting		X	49

Table 2: Partially Implemented
Initiatives as of August 1985

No.	Initiatives Description	Comments (page)	No.	Initiatives Description	Comments (page)
4.	Increased program stability	9	16.	Contractor in- centives	26
5.	Encourage capital investment	13	18.	Budget for in- flation	16
6.	Budget to most likely cost	16	19.	Forecast business base	42
7.	Economic pro- duction rates	21	20.	Source selection	43
9.	Support and readiness	26	21.	Standard systems	44
10.	Reduce adminis- trative costs/ time	30	22.	Design to cost	47
11.	Budget for risk	16	30.	Visibility of logistics/ support	26
12.	Test hardware	26	31.	"Fast Track" pro- grams	26
13.	Reduce acquisition legislation	33	32.	Increased com- petition	54
			33.	Defense industrial base	58

AGENCY COMMENTS


In commenting on a draft of this report, DOD agreed with many of our findings. It disagreed with our assessment of the implementation of the multiyear procurement and funding flexibility initiatives. In our draft report, we had indicated that these initiatives were only partially implemented because results had not been fully achieved and DOD was continuing to pursue action plans. DOD provided additional information indicating that both initiatives should be considered fully implemented because action plans had been essentially carried out with significant potential results. We agree and have modified our report. In several instances, DOD did not agree with our assessment that initiatives had been only partially implemented. As stated above, our criteria for assessing implementation was that DOD had to have carried out its action plans and to have established mechanisms for monitoring feedback. In those instances when we disagree with DOD, it is because we do not believe the feedback mechanisms in place are sufficient for monitoring progress and taking corrective action.

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As arranged with your Office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its date. At that time we will send copies to interested parties and make copies available to others upon request.

If we can be of further assistance, please call Paul Math, Associate Director for Research, Development, Acquisition, and Procurement on 275-4587.

Sincerely yours,



Frank C. Conahan
Assistant Comptroller General

C o n t e n t s

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ABBREVIATIONS

CAIG	Cost Analysis Improvement Group
CICA	Competition in Contracting Act
DOD	Department of Defense
DSARC	Defense Systems Acquisition Review Council
DTC	design to cost
IMIP	Industrial Modernization Incentives Program
OSD	Office of the Secretary of Defense

STATUS OF THE DEFENSE ACQUISITIONIMPROVEMENT PROGRAM'S INITIATIVESINITIATIVE NO. 2

Preplanned product improvements.

PURPOSE

The objective of this initiative is to ensure a lower risk approach to weapon system design to reduce unit costs and decrease the time needed to field new equipment.

STATUS

The Deputy Secretary of Defense issued an implementation plan in July 1981 outlining program criteria and requesting the services to identify program candidates, estimate the benefits, and request funds. Preplanned product improvements involve the conscious decision to delay the insertion of advanced technology in deployed systems through planned upgrades until the technology is demonstrated. The services provided a list of 26 candidate programs during the fiscal year 1984 budgeting process. According to the Office of the Secretary of Defense (OSD), no other information, such as implementation costs or specific subsystems included, was provided and none of the 26 candidates were funded due to their relatively low priority. OSD no longer monitors actions taken under this initiative except when they surface as an issue during major weapons' acquisition milestone reviews or during the budgeting process. According to an OSD official involved with them, not all reviews address this issue. Implementation has been predominantly decentralized to the services. In one service, implementation has been further decentralized to the program office level.

OSD officials said the primary thrust of preplanned improvements is being directed to new programs. However, they could provide no examples of programs incorporating these improvements. In our analysis of major new programs begun during fiscal years 1983 through 1985 (see p. 49), we identified four programs incorporating preplanned product improvements. However, we cannot be certain that these are the only ones because preplanned improvements are not, by design, a budget line item identified separately from the overall weapons program.

In analyzing the results of our questionnaire,¹ we found that over 70 percent of the 54 program managers responding plan to use or have already used preplanned product improvements. Of the 16 program managers reporting that they were already producing systems under this approach, 10 identified significant schedule benefits reporting that their first production unit was received over a year sooner than planned. They also generally believed that the preplanned improvement approach helped to upgrade system performance, increased the capability to manage and control program expenditures, and resulted in fielding systems that are more supportable and maintainable.

OBSERVATIONS

Our questionnaire results suggest that this initiative is having some very positive benefits. Since OSD is no longer routinely monitoring this initiative, OSD may not be aware of problems associated with preplanned product improvement or its potential for greater use. We believe that OSD needs to monitor program implementation to obtain information needed to determine if any adjustments are needed in the program.

¹We received questionnaire results from government managers of 54 of the 99 major weapon systems listed on DOD's December 1984 Selected Acquisition Reports. We asked only those managers to respond whose experience when combined with their deputies in these positions on the programs covered the last 2 years.

INITIATIVE NO. 3

Multiyear procurement.

PURPOSE

The objective of this initiative is to reduce acquisition costs and to improve product quality by stimulating capital equipment investments.

STATUS

Multiyear procurement was one of six acquisition areas identified by the Deputy Secretary of Defense in 1983 requiring management emphasis. A high level working group was established to monitor the implementation of this initiative. DOD maintains that progress on the multiyear procurement initiative has been made in (1) encouraging congressional action to relax certain requirements it had imposed in multiyear procurement and (2) achieving significant cost savings through the use of multiyear contracts.

We believe this initiative has been essentially implemented. The Congress authorized DOD to use multiyear procurement for its major weapon systems in 1981. DOD has proposed candidates for multiyear procurement each year since fiscal year 1982. The criteria for evaluating candidates for multiyear procurement outlined in the legislation and DOD policy include benefits to the government, degree of confidence in contract cost and savings estimates, and stability of system design, requirements, and funding. In its Fiscal Year 1985 Economies and Efficiencies Report, DOD claimed actual and projected savings through fiscal year 1989 from multiyear procurements of over \$4.7 billion.

In response to our questionnaire, six of eight program managers reporting that multiyear procurement had been approved for their programs also reported savings in unit procurement costs ranging from 7 to 31 percent.

Although multiyear procurements have reduced acquisition costs, the implementation and results achieved under this initiative have been limited by instabilities in the systems proposed for this strategy. Our recent report² on DOD's multiyear candidates for fiscal year 1986 illustrates this. We found that 5 of the 10 proposed programs did not clearly meet one or more of the criteria, including stable design and funding, for

²Analysis of DOD's Fiscal Year 1986 Multiyear Candidates
(GAO/NSIAD-86-1, Nov. 1985).

multiyear funding. In addition, DOD rejects some multiyear candidates the services recommend for submission to the Congress for approval. For example, for the fiscal year 1985 budget DOD did not submit 10 of the 22 candidates recommended by the services; however, in fiscal year 1986, the number rejected declined to 3 of the 13 DOD considered.

Another factor limiting the use of multiyear procurement has been DOD concerns regarding the loss of funding flexibility that additional multiyear contracts entail. The requirement to guarantee multiyear funding of a major system at fixed levels over several years reduces flexibility in managing the DOD budget and limits the ability to change funding priorities to meet unexpected needs. To the extent that DOD budgets become more constrained in the future, the trade-off between achieving savings from multiyear procurement and retaining budget flexibility will be increasingly difficult to make. The President's Blue Ribbon Commission on Defense Management reported³ in February 1986 that DOD and the Congress should expand the use of multiyear procurement to achieve greater program stability and lower weapon system costs.

OBSERVATIONS

The Congress and DOD have worked together to achieve substantial savings through the use of multiyear contracts. Although DOD has achieved substantial savings under this initiative, its implementation and results achieved have been limited by (1) the instability in funding and system design and other factors present in the weapon systems proposed for this strategy and (2) concerns regarding the loss of funding flexibility inherent in multiyear procurement. Because these limitations represent valid concerns in considering multiyear procurement candidates for approval, we have consistently recommended that multiyear procurement be evaluated and approved on a case-by-case basis.

³An Interim Report to the President (President's Blue Ribbon Commission on Defense Management, Feb. 28, 1986).

INITIATIVE NO. 4

Increase program stability in the acquisition process.

PURPOSE

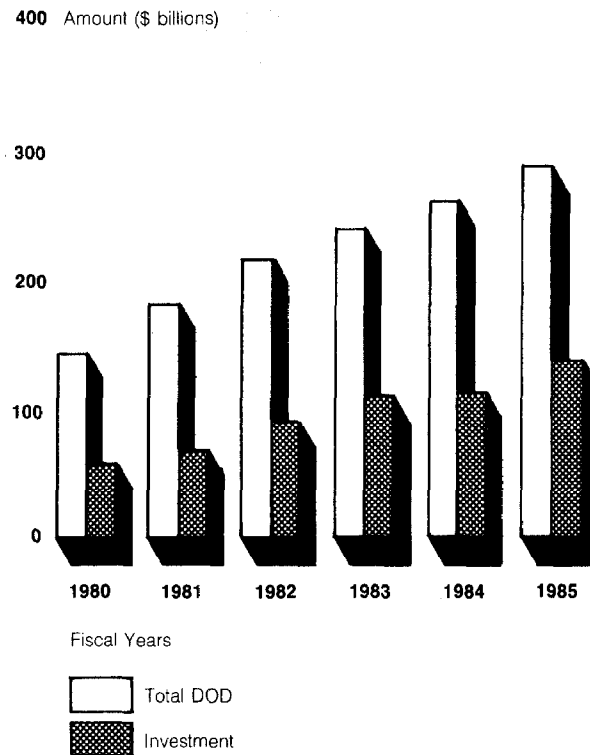
The objective of this initiative is to reduce acquisition costs and time.

STATUS

We were unable to identify a universally accepted definition for program stability. However, stable programs generally proceed through the acquisition process on schedule and within cost targets, and meet performance requirements; unstable programs do not. Program instability leads to uncertainties about the future that foreclose opportunities to achieve efficiencies in the acquisition process. For example, the planning for production at the factory is done years in advance of production to acquire the necessary plant capacity and equipment to produce needed quantities efficiently. Weapon systems cannot be produced at economical rates when production quantities do not use this plant capacity efficiently. Increased costs and inefficiencies occur when the quantities being produced result in expensive plant and equipment being underused. On unstable programs, procurement quantities frequently change from year to year, precluding efficient plant use.

The former Deputy Secretary of Defense who initiated the acquisition improvement program identified this initiative as the key to reducing acquisition costs and acquiring weapons on time with the desired quantities and performance characteristics. Two succeeding Deputy Secretaries have reaffirmed DOD's commitment to this initiative. DOD's efforts to stabilize the acquisition process have been aided by unprecedented increases in defense spending. From fiscal years 1980 through 1985, the DOD budget has increased from \$143 billion to \$285 billion--an increase of nearly 100 percent. This represents the largest peacetime increase in defense spending (in current year dollars) in this Nation's history. At the same time, the investment accounts (Procurement; Research, Development, Test and Evaluation; and Military Construction) have increased from \$51 billion to \$134 billion--an increase of 163 percent, as shown in figure I.1.

Figure I.1: DOD Appropriations



Despite large budget increases, DOD has reported essentially no progress in stabilizing major weapon programs with about 43 percent of the programs it monitors being unstable during both the fiscal years' 1984 and 1985 budgets. For purposes of reporting progress on this initiative, DOD considered a program unstable if the planned procurement quantities in the current President's budget request are more than 5 percent below the quantities projected for this budget in the previous year's budget request. The responses of program managers to our questionnaire confirmed DOD's lack of progress in stabilizing programs. About 45 percent of the managers considered their programs unstable at the beginning of fiscal year 1986, as compared to about 40 percent who considered their programs unstable at the beginning of fiscal year 1983.

In our recent report⁴ we concluded that weapon systems beginning development after the improvement program began have reported some improvement in containing cost growth and reducing the magnitude of schedule slippages. These improvements indicate some progress in stabilizing programs. However, we could not

⁴DOD's Acquisition Improvement Program: A Status Report
(GAO/NSIAD-86-148, July 1986).

determine whether the improvements were due to forces outside of DOD's control, such as the significant increases in defense spending during the 1980s, or DOD's management initiatives. It is likely that DOD's initiatives have had minimal effect because they have not been fully implemented.

The President's Blue Ribbon Commission on Defense Management reaffirmed, in its report,⁵ the need to improve program stability. Several factors contribute to the absence of meaningful progress in stabilizing DOD's major systems acquisition process. Factors outside of DOD's control, such as the state of the overall economy, influence the acquisition process. However, factors within DOD's control also influence the process. For example, our questionnaire results show that most of the program managers reporting unstable programs attributed this to adjustments by DOD to their program's 5-year plan and budgets. Conversely, most of the managers with stable programs attributed their success, in part, to adherence to the 5-year plan and adequate funding. Other factors they reported contributing to program stability were appropriate levels of program manager authority and responsibility, multiyear contracting, and realistic budgeting.

DOD has attempted to improve program stability through some of the other initiatives included in the acquisition improvement program with limited success. Specific objectives included budgeting more realistically by using less optimistic assumptions, reducing the number of new major programs, and canceling low priority major acquisition programs. Overly optimistic budgets build in program instability because, as higher program costs become apparent and difficulties arise requiring greater than budgeted funds, DOD tends to stretch out programs, that is, acquire weapons over a longer period than planned, to stay within budgeted funds. This leads to higher program costs when the weapons' procurement rates are reduced below economic production levels. (See p. 21 for more discussion.) To reduce the demand for the available funding and ease budgeting constraints, DOD has attempted to reduce the number of new major programs. (See p. 49 for more discussion.) As we recently reported,⁶ overcoming the barriers to program stability will be a long-term and difficult process requiring continuous DOD commitment.

⁵A Formula For Action: A Report to the President on Defense Acquisition (President's Blue Ribbon Commission on Defense Management, Apr. 1986).

⁶See footnote 4.

OBSERVATION

DOD has made limited progress in stabilizing programs despite unprecedented increases in defense spending since 1980. To achieve progress will be extremely difficult requiring a continuing DOD commitment. At a minimum, this requires a realistic assessment of the likely costs of the programs already in production or in development. This analysis should provide the basis for determining how much funding is available for major new program starts.

INITIATIVE NO. 5

Encourage capital investment to enhance productivity.

PURPOSE

This initiative is intended to encourage capital investment by DOD contractors to increase their productivity and lower weapon system costs.

STATUS

The action under this initiative continues under the Industrial Modernization Incentives Program (IMIP). Through IMIP, DOD provides contractors incentives for investing in efficient production equipment and processes. The two primary incentives to contractors are (1) payments based on actual cost reductions and (2) governmental investment protection guarantees if affected weapon systems are terminated prematurely. The initiative to enhance the defense industrial base is closely related to this initiative. (See p. 58 for discussion of this initiative.)

In 1982 the Deputy Secretary of Defense established a steering group to monitor and evaluate a test of IMIP by the services, and develop program policy and guidance based on an assessment of the services' experiences. In early 1985, 94 contractors were participating in 50 ongoing IMIP efforts. However, most efforts were in the early phases and few benefits had been achieved. The IMIP test concluded when formal coordination draft policy and guidance were released in August 1985.

We recently reviewed the adequacy of the IMIP test and draft guidance.⁷ Our review showed that:

- Potential IMIP benefits to the government were substantial, but the visibility of and accountability for benefits needed to be strengthened. DOD estimated that ongoing IMIP efforts for which benefits had been quantified would reduce DOD's procurement costs by about \$6 billion over the next 8 to 10 years. Other benefits, such as improved product quality and reduced lead times, were also expected. Over \$4 billion of the estimated cost reductions and avoidances were based on projections made in the early phases of IMIP and are subject to change. Furthermore, projected benefits were inconsistently reported and might not provide an accurate overview.

⁷DOD's Industrial Modernization Incentives Program: An Evolving Program Needing Policy and Management Improvement (GAO/NSIAD-85-131, Sept. 6, 1985).

--Though the steering group developed draft policy and guidance that adequately discussed some management issues, improved guidance needed to be developed through further analysis and testing of approaches. More specifically, we concluded this guidance should address (1) when and to what degree direct funding is in the government's best interest, (2) what business arrangements between DOD and the contractors can best meet program objectives and minimize government costs, and (3) what are the best incentive mechanisms for use with subcontractors and vendors.

--Structured planning and programming systems needed further development to help the services maximize program benefits. All DOD components were planning to continue expanding the program, but only the Air Force had begun developing a structured planning and programming process. Such a process helps identify areas in DOD's industrial base where problems might arise in meeting future defense requirements.

In commenting on our draft report, DOD stated that on April 16, 1986, it had issued policy guidance on IMIP and plans to issue other IMIP guidance in the near future. DOD believes this policy incorporates our suggestions for IMIP improvements and will provide a sound basis for broader program implementation and achievement of potential benefits.

DOD has undertaken a variety of other efforts to meet the objectives of this initiative, such as expediting payment of contract invoices, negotiating contractor profit levels commensurate with contractor risk and investment, and removing the profit limiting provisions of the Vinson-Trammell Parity Act (48 Stat. 503). All of these efforts are intended to encourage contractors to increase their productivity through greater investment in capital equipment and are briefly discussed below.

--Expediting payments to contractors is intended to increase the funds available to contractors for making capital investments. Under the Prompt Payment Act, federal agencies are required to make timely payments on contractor invoices on contracts awarded after October 1, 1982, or pay an interest penalty to the contractor. On October 7, 1982, DOD issued guidance to require payment of contractor invoices within 5 days of receipt, but not later than 30 days. The services subsequently reported expedited payments as an accomplishment under the improvement program.

--DOD requires contractor profit levels to be negotiated commensurate with contractor risk and investment.

--DOD sought to repeal the provisions of the Vinson-Trammell Parity Act limiting contractor profits that could discourage productivity enhancing investments. In December 1981, the Congress replaced these provisions of the act with standby legislation authorizing the President to issue profit limiting regulations upon declaration of a national emergency.

Our questionnaire to government program managers indicated that the above efforts have had little effect, in many cases, in enhancing the industrial base through increased contractor investments. About 63 percent of the 32 program managers, who believed expediting payments to contractors applied to their programs and were sure about its effect, reported that this action had had little or no effect on the industrial base. The comparable responses for the action to negotiate contractor profit levels considering risk was 12 of 36 program managers, and for the action to limit profits was 7 of 11 program managers.

OBSERVATIONS

We believe that the potential IMIP benefits are substantial, but the program needs improvement. DOD agreed and has recently issued new program policy guidance which DOD believes will improve IMIP implementation and results.

INITIATIVE NOS. 6, 11, AND 18

Realistic budgeting.

PURPOSE

These initiatives are intended to reduce the cost growth in weapon systems resulting from understated and overly optimistic program and budget estimates, and to enhance program stability.

STATUS

When announcing this initiative, DOD stated that its failure to budget realistically had been a prime contributor to cost growth in weapon systems. DOD characterized the problem as one involving (1) program cost estimates and budgets being sometimes purposely understated either because DOD was forcing a program to fit available funding, or because contractors lowered their cost estimates to win a contract with hopes of recovering costs on follow-on contracts, (2) failure to budget funds for program uncertainties, and (3) overly optimistic inflation estimates. Overly optimistic budgets build in program instability because, as higher program costs become apparent and unanticipated difficulties arise requiring additional funding, DOD tends to stretch out programs rather than cancel lower priority programs to stay within overall budget ceilings. This leads to higher program costs when the weapons procurement rates are reduced below economic production levels.

In June 1983, the Deputy Secretary of Defense established a high level management working group to examine the applicability of the baselining approach to budgeting, and to ensure continued emphasis on the realistic budgeting issue comprised of the following three initiatives:

- budget to most likely cost,
- budget for technological risk, and
- budget for inflation.

Each of these initiatives and baselining are discussed below.

Budget to most likely cost

OSD has required the services to submit two (program office and independent) cost estimates with budget requests for selected programs since 1982. The 1984 DOD Authorization Act required the Secretary of Defense to obtain and consider independent cost estimates before approving the full-scale development or the production and deployment of major acquisitions. In its May 1984

report to the House and Senate Armed Services Committees on the use of these estimates, DOD reported that the services had adjusted their fiscal year 1985 5-year program by about \$1.5 billion as evidence of DOD's program efforts to budget more realistically. This is less than 1 percent of the total funds involved.

According to our questionnaire results, about 30 percent of the 46 program managers having independent cost estimates believed that these estimates have done little or nothing to reduce the likelihood of unrealistically low estimates. Approximately 28 percent reported these estimates reduced the likelihood to some extent, and over 41 percent reported that the likelihood was reduced to a moderate or greater extent.

Budget for technological risk

This initiative was designed to formally recognize and quantify in the budgeting process contingency funds needed due to uncertainties inherent in developing major weapon programs. When unforeseen problems develop and funds are not available to address them, the program must be delayed until additional funding can be approved or stretched out to accommodate existing funds. In either case, the program becomes unstable and less efficient.

Current DOD budget guidance no longer requires the services to identify contingency funds in their budgets. Instead, the practice is to include contingency funds as an unidentified portion of program budgets. According to the chairman of the working group on realistic budgeting, this is due to past congressional actions eliminating contingency funds when identified.

We found that DOD has not totally adopted a method to quantify technological risks as required by this initiative. About one-fourth of the 48 program managers responding to our questionnaire on this issue reported using a formal, quantitative approach to measure technical risk, and most of these managers used this information to derive their program budgets. About 13 percent of the managers did not express their views on the benefits of formal assessments. Of those who did, about one-half believed such assessments help provide, to a moderate or greater extent, realistic cost estimates and adequate funding for technical difficulties. Most of the responding managers reported, however, that formal assessments minimize performance risk and schedule slippage only to some or little or no extent.

We recently recommended⁸ several actions the Secretary of Defense should take to reinforce DOD's emphasis on technical risk assessment.

Budget for inflation

DOD focused attention on budgeting for inflation because of the unexpectedly high inflation rates of the 1970s that, according to DOD, resulted in a \$6 billion to \$7 billion annual underfunding and apparent cost growth of major weapons. To improve inflation estimates, DOD began using a special inflation index for weapons that was higher than the index for the overall economy. We recently reported⁹ that no justification exists for using this special index. We found that DOD had received an inflation dividend of over \$36 billion from fiscal years 1982 through 1985 of which over \$9 billion was due to the special index. The remainder was due to overestimates of inflation. We recommended that DOD eliminate the special inflation index, provide information on inflation funds at critical stages in the budget process, and improve and integrate its budget and financial management systems to help track how funds are used in DOD and to identify excess funds.

The special inflation index for weapons was eliminated in the administration's fiscal year 1987 budget due to lower inflation projections. DOD plans to annually review the necessity for and size of the index. In addition, the Secretary of Defense recently submitted a report on inflation funds to the President of the Senate as required by the Fiscal Year 1986 DOD Authorization Act. The report cited a \$28.4 billion savings due to lower than anticipated inflation during fiscal years 1982 through 1985. According to DOD, these savings were distributed as follows:

- \$13.1 billion were reprogrammed with approval of the Congress,
- \$8.9 billion were returned to the U.S. Treasury, and
- \$6.4 billion were used by the Congress to justify congressional reductions to defense programs.

The report also addressed a proposal to defer requests for inflation funding from the beginning to the end of the fiscal year for which the funds are needed. In discussing the proposal, DOD

⁸Technical Risk Assessment: The Status of Current DOD Efforts (GAO/PEMD-86-5, Apr. 3, 1986).

⁹Potential for Excess Funds in DOD (GAO/NSIAD-85-145, Sept. 3, 1985).

cited several disadvantages and no advantages. The disadvantages included (1) expanding DOD's and the Congress' recordkeeping, (2) revising procurement regulations, (3) negating the congressional full funding directive and DOD's objective of budgeting to most likely cost, (4) making it more difficult to obtain accurate cost estimates until program production is completed, and (5) the likely unwillingness of others to add funds for inflation after completing the annual appropriation process, especially in light of the Balanced Budget and Emergency Deficit Control Act of 1985.

Of the 53 program managers responding to our questionnaire on this issue, 57 percent reported that the index had provided a reasonably accurate estimate of the increase in program costs. The remaining responses were about equally divided between an overestimated and underestimated increase.

Baselining

Baselining was originally an Air Force technique for controlling weapon system cost growth by documenting formal agreement to the initially approved program and any later changes to it. Agreement is generally reached at the beginning of full-scale development among headquarters, participating major commands, and the program manager. Baselines must be updated and revalidated by headquarters and participants based on budgeting and other program changes. The working group reported on the applicability of this concept DOD-wide in response to direction by the House Armed Services Committee in April 1984 and the Deputy Secretary of Defense in June 1984. The report stated that the other services have cost control systems containing the critical elements of the Air Force system--a program baseline, procedures for changing the baseline, and accountability for changes.

Baselining can be an effective tool for controlling weapon system costs and budgeting realistically. In responding to our questionnaire, 42 or about 79 percent of the 53 program managers reporting on baselining indicated that it was used on their programs. Nearly three-fourths of these managers reported that baselining reduced the likelihood of unrealistically low estimates on their programs. The President's Blue Ribbon Commission on Defense Management reported that baselining can improve program stability and that DOD should fully institutionalize it for major weapon systems at the initiation of full-scale development.

OBSERVATIONS

Achieving more realistic budgets will require continued DOD emphasis because it is a difficult and longstanding problem. DOD has taken several actions, particularly in the areas of budgeting to most likely cost and budgeting for risk, to address this problem. However, the results have been disappointing because of

less than complete implementation. We believe that the baselining technique can be an effective tool for budgeting realistically and encourage DOD to continue its efforts to implement it.

INITIATIVE NO. 7

Economic production rates.

PURPOSE

The purpose of this initiative is to reduce the cost and time needed to field a weapon system by producing systems at more economical rates.

STATUS

The Deputy Secretary of Defense established a high level management working group in June 1983 to oversee efforts under this initiative. The working group's two major objectives were to define economic production rate and to increase the visibility of this issue in the budgeting process.

In November 1983, the working group officially defined various production rates, including the minimum economic rate, and identified 50 major systems to monitor efforts to fund systems at or above this minimum economic rate. The working group defined this rate as that for which a ". . . further reduction in quantity incurs an inordinate increase in unit cost with an unacceptable return on investment." In early 1984, the working group disbanded and transferred the monitoring activity to OSD as part of OSD's budget review functions.

DOD has made some progress in funding systems at economical rates. Of the 50 weapon systems OSD monitors, the percentage funded at least at the minimum economic rate increased from 48 percent in fiscal year 1984 to 57 percent in fiscal year 1985. DOD assessments of weapons' alternative production levels must also include a variety of other factors, such as whether the weapon system is experiencing technical problems that would preclude full-scale production. Questionnaire data from the 29 managers of programs in full-scale development during fiscal years 1983 through 1985 show, however, that among the major inhibitors to producing weapons economically are insufficient funding and year-to-year fluctuations in funding. This suggests that fully implementing the realistic budgeting and program stability initiatives could result in greater production economies.

DOD claimed cumulative savings of almost \$2.8 billion in its 1985 Economies and Efficiencies Report for fiscal years 1981 through 1989, resulting from buying weapon systems at more economical rates. However, these savings may be overstated because savings estimates are not reduced by costs incurred when other major systems are funded at less economical rates to provide funding for systems at economical rates. For example, an internal

working group report dated November 17, 1983, stated that preliminary fiscal year 1985 budget submittals had reduced quantity buys on 25 programs below earlier plans, which could increase the cost of these programs by \$3.5 billion. The report further stated that the estimated savings of \$2.6 billion reported in DOD's May 1983 Economies and Efficiencies Report was not offset by the possible \$3.5 billion increase. According to DOD, program quantity reductions can occur not only to fund other systems at more economic rates when budgets are reduced, but for several other reasons, such as technical problems and program changes. However, the November 1983 report clearly stated that DOD reduced program quantities below earlier plans primarily to fund other systems economically leading to uneconomical production rates and higher costs for the programs reduced. Consequently, since these costs have not been considered in determining economic production rate savings, we believe the reported savings are too high and could be nonexistent.

We recently reported¹⁰ on the use of economic production data within DOD. We noted that OSD has not provided adequate guidance to the military services for computing economic production rates, which has led to inconsistently reported production data within and among the military services. In addition, DOD is providing limited visibility to economic production data in the budgeting process. These problems have limited the usefulness of economic production data as a budgeting tool. The 50 weapons OSD monitors include 37 of the 99 systems identified as major by DOD's December 1984 Selected Acquisition Reports. This leaves 62 major systems for which OSD is not routinely collecting economic production data. For some of these systems, such as ships, collecting such data would not be practical. Nevertheless, at the time of our review, OSD had not required the services to report unit production cost data for weapons at alternative production levels even when collecting such data was practical. We believe this information is necessary to effectively use economic production data for making funding trade-offs.

OBSERVATION

We believe that the concept of economic production rates is sound, and that DOD can more effectively use this as a budgeting tool. Our report, discussed above, recommended that the Secretary of Defense (1) specifically define what information the services are to report, and that it include defined unit cost data at alternative production rates and (2) establish formal, written

¹⁰DOD Can Use Economic Production Data More Effectively
(GAO/NSIAD-86-37, Jan. 28, 1986).

criteria for periodically reviewing and selecting weapon systems to be included in the economic production rate reporting process. In commenting on our report, DOD stated that on March 31, 1986, it issued specific guidance on what the services are to report for selected major weapon systems. OSD plans to annually adjust, in consultation with the services, the list of systems selected for reporting.

INITIATIVE NO. 8

Assure appropriate contract type.

PURPOSE

The purpose of this initiative is to balance program needs and cost savings with a realistic assessment of contractor and government risk by insuring the use of the appropriate contract type.

STATUS

DOD implemented this initiative through a January 1982 Deputy Secretary of Defense memorandum to the secretaries of the military departments requesting their support in formulating appropriate contract types. A second clarifying memorandum was issued in June 1982 stressing the need for a fair and reasonable apportionment of risk and responsibility between the government and the contractors. According to DOD, these actions stemmed from serious industry concerns, over a long period, about the recurring inappropriate use of fixed-price contracts for weapon systems' development and early production. This led to high financial risk for contractors during these phases of the weapon's acquisition due to the uncertainties inherent in developing weapons without a contract price structure to help balance these risks. According to OSD, this eventually resulted in cost overruns because contractors often passed on to DOD development losses as part of the subsequent production contract.

According to the Secretary of Defense's Fiscal Years 1986 and 1987 Annual Reports to the Congress, DOD has increased the use of fixed price contracts. In fiscal year 1985, DOD reported that 82 percent of all military procurement dollars were under fixed-price contracts, up from 75 percent 3 years before. DOD is increasing the use of these contracts to discourage "buy ins" (where contractors bid unrealistically low to get a contract) and reduce cost overruns. However, this trend may be running counter to the purpose of this initiative--consider contractor and government risk in determining contract types--since the problem giving rise to the initiative was the inappropriate use of fixed-price contracts. We were told that OSD is attempting to ensure the appropriate use of contract types during the major acquisition decisionmaking process.

In commenting on our report, DOD stated that this initiative has not been fully implemented citing a Navy policy on the use of fixed-price contracts in the full-scale development phase that DOD believes conflicts with this initiative. However, DOD officials told us that DOD has approved this Navy policy as an experiment to determine what, if any, impact this will have on future weapons'

costs. We believe that this initiative has been fully implemented because DOD has completed action plans and has monitored results. As stated above, we also believe that the increasing use of fixed-price contracts tends to run counter with the purpose of this initiative. However, we believe this reflects failure to achieve the initiative's results rather than incomplete implementation, as we have defined it.

INITIATIVE NOS. 9, 12, 16, 30, AND 31

Improve weapon system's readiness and support.

PURPOSE

These initiatives are intended to improve the logistical supportability and maintainability of weapon systems deployed in the field.

STATUS

Several initiatives are designed to improve weapon system's readiness and support, including those to

- emphasize the weapon system's readiness and support early in the acquisition cycle and give these objectives equal priority to the system's cost, schedule, and performance objectives;
- provide adequate funding for test hardware;
- increase contractor incentives to improve weapons' support and readiness;
- increase the visibility of logistics and support resources decisions; and
- improve the reliability and supportability of weapons with accelerated acquisition cycles.

Some of these initiatives have been fully implemented, others have not because they involve fundamental changes to DOD operations that are long term in nature. In commenting on our report, DOD concurred in our findings but considered readiness and support initiatives implemented. The DOD view was that if enhancements are needed through fundamental changes then they will be considered where it is cost effective.

According to OSD, readiness and support objectives are receiving priority attention in the acquisition process. DOD policies have been revised requiring that resources to achieve readiness objectives receive emphasis comparable to that applied to cost, schedule, and performance. OSD officials in the Weapon Support Improvement Group told us that they monitor implementation of this policy during the decisionmaking process for major weapon systems. Of the 10 program managers responding to our questionnaire with programs still in early development, all but one of them generally reported that readiness and support issues are receiving at least some attention with about one-half

reporting that these issues are receiving a great or very great amount of attention. Managers of programs that were beyond early development reported similar views.

The specific objective of the initiative involving test equipment is to provide adequate funding earlier in the development cycle for test hardware to shorten development time without substantially increasing risks. Development time was to be shortened by having enough test versions of the weapon to permit concurrent rather than sequential testing of performance, reliability, and other characteristics. In 1983, this initiative was transferred to the DOD high level management group responsible for readiness and support issues because, according to DOD, when test assets are inadequate, the weapons' support objectives are generally the ones not tested. DOD has revised its policies to emphasize the importance of having adequate test hardware. OSD officials said that they monitor implementation through the formal weapons acquisition decisionmaking process.

Last year we reported¹¹ that several major weapon systems experienced problems in production because performance requirements had not been adequately demonstrated, partially because too few prototypes were available for testing. The following example from our report illustrates this point.

--The Air Force's Air Launch Cruise Missile lacked sufficient test data before production start-up. Our Office and an independent Air Force test agency reported that test results did not conclusively justify a production decision. The Air Force test agency stated that the planned operational test was limited in scope due to program constraints, such as the limited number of missiles (none of which were production configured). After the Air Force began missile deployment, system deficiencies identified during testing continued. For example, the lack of adequate complete subsystems affected a key element to the missile's effectiveness, and the prototype system was not built to support realistic testing. We concluded that an effective testing program could have identified these problems before production began.

Our report recommended that the Secretary of Defense (1) assure that test results critical to assessing mission performance are available before production start-up and (2) inform congressional decisionmakers of the effect of starting production without sufficient test results.

¹¹Production of Some Major Weapon Systems Began With Only Limited Operational Test and Evaluation Results
(GAO/NSIAD-85-68, June 19, 1985).

In commenting on this report, DOD concurred with our finding but objected to the Air Launch Cruise Missile example. DOD believed this example was inappropriate to illustrate our finding because the missile's test quantities were established before DOD announced this initiative, thus precluding any change in the quantities available to be tested. We believe this system appropriately illustrates our point because DOD had an opportunity to adjust schedules to accommodate any additional testing and to request additional funding to support such changes. Since testing on this missile continued for nearly 3 years after the improvement program was announced, DOD had ample opportunity under the improvement program to correct the deficiencies in the missile's test equipment.

DOD is currently implementing legislation requiring the use of contractor warranties to provide additional incentives for improving the reliability of weapons. Warranties contractually require contractors to deliver weapon systems that conform to essential performance requirements as specified in the production contract, and are free from all defects in materials and workmanship. We are currently reviewing DOD's implementation of the warranty legislation. The Air Force has established a Product Performance Agreement Center as a clearinghouse for information and guidance in formulating contract warranty provisions. This was initially to be a triservice effort, but the other services have not provided funding support.

To further increase the visibility of logistics and support, the Deputy Secretary of Defense, in August 1984, directed the military services to define additional steps to validate weapon system support requirements, track the associated funding in the budgeting process, and manage support funding changes to consider effects on deployment schedules and readiness objectives. The guidance directed that these actions be addressed within 3 years on all major weapon systems for which Selected Acquisition Reports are required. The guidance also recognized the constraints in the budgeting process for tracking support funds by weapon system, particularly funds for common support items, such as spares, depot maintenance, and some support equipment. To accomplish this, the services were directed to provide implementation plans by November 1984. The services submitted plans that essentially recognize, among other things, that implementation will be a long-term effort that may take several years to complete due to fundamental changes required in DOD's financial system to account for support funds by weapon system. Last year we reported¹² on the Army's efforts to estimate and budget for weapon systems' operation, maintenance,

¹²Status of Efforts to Estimate and Budget for Army Weapon System Sustainment Costs (GAO/NSIAD-85-157, Sept. 26, 1985).

and support costs. We found that the Army had several ongoing efforts to collect cost data by individual weapon systems, but that problems remained requiring a long-term sustained effort that the Army had undertaken. The other services have also undertaken similar activities.

DOD policy requires that accelerated strategies for major weapon systems place additional emphasis on supportability design requirements (such as reliability and maintainability), and provide additional funding earlier in the development cycle to achieve readiness objectives. DOD has reported that OSD is monitoring implementation of this policy during major system acquisition milestone reviews and considers the initiatives fully implemented. We believe that closer scrutiny is necessary for monitoring implementation and consequently consider this initiative partially implemented. This policy has been implemented with undesirable results in some cases, because of DOD's policy permitting the services to build concurrency into their weapon's acquisitions. Concurrency is the overlap in time between the weapon system's development and production. Concurrency offers the potential to accelerate schedules but contains inherent risks. As previously discussed, our recent report¹³ on this issue concluded that several major systems we reviewed began production without having adequately demonstrated that performance requirements were met in a representative operational environment. As a result, expensive retrofits were required to correct problems identified during operational testing performed after the production decision was made. Furthermore, one program, the Sergeant York, was canceled after 64 weapons costing \$1.8 billion had been produced and delivered because, according to the Secretary of Defense, independent operational tests showed that the system's performance did not meet the military threat.

OBSERVATIONS

DOD and the Congress have recently taken some actions that should eventually result in more reliable and supportable weapon systems. DOD appears to be giving weapons' reliability and support issues higher priority in the acquisition process. DOD has taken steps to increase the visibility of these issues in the budgeting process, but full implementation is a long-term process that will take years to complete due to the fundamental changes needed in DOD's financial system to account for support funds by weapon systems.

¹³See footnote 11.

INITIATIVE NO. 10

Reduce the administrative cost and time to procure items.

PURPOSE

The purpose of this initiative is to reduce the administrative costs and time for procuring items by raising the threshold authority for small purchases and eliminating unneeded paperwork.

STATUS

To accomplish this initiative's purpose, in a memorandum dated April 30, 1981, the Deputy Secretary of Defense recommended the following actions:

- raise the \$10,000 limit for negotiating small purchases to \$25,000;
- raise the threshold for contractor costing data input from \$100,000 to \$500,000;
- raise the threshold for service secretary review of contract determinations and findings¹⁴ for research, development, test and evaluation from \$100,000 to \$1 million;
- encourage greater use of class determinations and findings to cover multiple contracts;
- raise reprogramming thresholds; and
- eliminate the need for non-secretarial level determinations and findings for competitive negotiated contract awards.

In November 1981, the Deputy Secretary of Defense added simplification of contractual documents as an additional issue under this initiative.

The 1983 Acquisition Improvement Program Report concluded that the implementation of this initiative was essentially

¹⁴A determination and finding is a special form of written approval required by statute or regulation as a prerequisite to taking certain contracting actions. A class determination and finding is used to authorize actions for a class of related supplies or services or for actions requiring identical justifications.

complete even though all the action items were not accomplished. Later events also affected some of the action items. The actions taken are summarized as follows:

- The DOD Authorization Act of 1982 (1) raised the \$10,000 limit for negotiating, rather than competitively bidding, small purchases to \$25,000, (2) raised the threshold for service secretary review of contract determinations and findings for research and development from \$100,000 to \$5 million, and (3) raised the mandatory threshold for contractor cost and pricing certificates from \$100,000 to \$500,000. This was later reversed to \$100,000 by the Competition in Contracting Act (CICA) of 1984.
- The item encouraging greater use of class determinations and findings was dropped in 1981 because they were being used where feasible.
- The item to raise reprogramming thresholds was transferred to initiative 15. Under this initiative, DOD proposed and the Congress approved increasing reprogramming thresholds for procurement from \$5 million to \$10 million, and for research and development from \$2 million to \$4 million. (See p. 37.)
- The item to eliminate the need for non-secretarial determinations and findings for competitive negotiated contracts was eliminated by CICA. Under CICA, decisions to award contracts noncompetitively require other specific justifications and approvals. Decisions to award contracts competitively require no such specific approvals.
- As part of this initiative, DOD began a project with the Air Force assigned the lead role, to study contract simplification. Several of the project's simplification initiatives have been adopted for DOD-wide implementation. For example, the use of master solicitations has been expanded. This reduces the volume and complexity of contract documents by referencing standard contract requirements rather than including their actual text, and printing only the revisions rather than the entire master solicitation when changes are made. In addition, several other simplification projects are being tested and evaluated.

While DOD considers the actions under this initiative essentially complete, we question whether the objective of the initiative has been or even can be fully accomplished. Indications exist that the lengthening of administrative lead time over about the last 2 years has been dramatic. For example, the Air Force Logistics Command, which is responsible for providing

the logistical support for Air Force weapon systems amounting to several billion dollars annually, recently reported that the administrative lead time for small purchase contracts increased from 47 to 84 days, and for negotiated contracts over \$6 million from 167 to 230 days. The Command also indicated that justifications for large sole-source procurements required by the 1983 amendment to the Small Business Act and other factors had further extended the time for the contracting process. The Command recognized that improvements had been made in the acquisition process, but that they had been made with additional costs. We agree and although new legislation and administrative requirements result in a more lengthy and costly process, we believe that these requirements can also achieve substantial price savings when properly implemented through the competition process. DOD has not determined whether there has been any time or cost savings associated with this initiative.

Our questionnaire data from program managers showed somewhat mixed results on DOD's actions to reduce administrative cost and time. In many instances, the actions had not been applied to the programs. For example, about 82 percent of the programs did not apply simplified contract formats and about 57 percent did not apply the new thresholds for service secretary reviews. When the actions were applied, our data showed that time requirements were reduced in

- all 8 programs simplifying contract formats,
- 14 of 22 programs involving the higher thresholds for service secretary reviews,
- 11 of 22 programs applying the higher thresholds for contractor cost and pricing certificates, and
- 13 of 15 programs using the greater authority for negotiating small purchases.

When program managers reported that time had not been reduced in procurement administration, they attributed this about equally to requirements for sole-source justifications, time required for contract preaward surveys by the Defense Contract Administrative Service, and new legislative requirements.

OBSERVATIONS

DOD has initiated several actions to simplify the acquisition process which have not been fully implemented. However, we question whether the objective of this initiative to reduce the administrative costs and time associated with the procurement process can ever be fully accomplished because many of the requirements of this process are necessary to ensure that price savings are achieved through the competition process.

INITIATIVE NO. 13

Governmental legislation related to acquisition.

PURPOSE

The purpose of this initiative is to identify and revise as necessary, acquisition related laws and regulations that are an unnecessary burden on the acquisition process.

STATUS

Efforts under this initiative began with the establishment of a working group to determine the effect of various requirements on the efficiency and effectiveness of the total DOD acquisition process. This working group identified over 60 provisions that had been imposed on the procurement process. Ten were identified as legislative and required immediate attention because of their cost and burden. These provisions covered such topics as changes in the 40-hour workweek for DOD contractors, contract reporting requirements, and retiree suggestions. We were told that other legislative changes proposed by DOD are not included under this initiative.

Two provisions dealing with retiree suggestions and the DOD contractor's 40-hour workweek have resulted in legislative changes. DOD is no longer required by law to solicit suggestions for improving procurement policies from retiring commissioned officers and civilian personnel above grade GS-12 who were assigned to military procurement. We were told that this change did not result from a DOD sponsored proposal. However, DOD's interest in this issue did influence the repeal of the legislation. The DOD Authorization Act of 1986 (Public Law 99-145) amended the Contract Work Hours and Safety Standards Act (40 U.S.C. 328(a)) and the Walsh-Healy Act (41 U.S.C. 35(c)) to allow federal contractor employees to work a flexible 40-hour week without requiring overtime pay for a workday over 8 hours.

We were also told that the issue concerning contractor reporting requirements, as required by the Copeland Anti-Kickback Act, has been withdrawn due to lack of Office of Management and Budget support. This act requires contractors to certify weekly that their payrolls are correct and complete and that wage rates comply with those determined by the Secretary of Labor. DOD believes the weekly certifications are redundant and can be replaced with a one time certification for each contract.

DOD is continuing to push for legislative changes under this initiative primarily in the areas of revising the Service Contract Act and increasing statutory thresholds to \$25,000 for several statutes such as the Service Contract Act and Davis-Bacon Act.

These acts prescribe procedures for determining minimum wages to be paid to various types of contractor employees. DOD believes that interpretations in implementing the Service Contract Act have caused a continuing spiral of inflationary wages and increased cost to the government. Some of DOD's concerns have been addressed through regulatory changes, but DOD seeks more permanent legislative changes and changes such as considering employees' experience levels in determining wages not addressed through regulations. OSD cites recommendations by the President's Private Sector Commission on Costs and others in recommending increasing statutory thresholds to \$25,000. Government procurement personnel must follow special procedures when thresholds are exceeded.

INITIATIVE NO. 14

Reduce the number of DOD directives and eliminate non-cost effective contract requirements.

PURPOSE

The purpose of this initiative is to reduce the number of DOD acquisition directives, the amount of contract documentation, and contract requirements which are not cost effective. DOD expected this initiative to reduce program costs by eliminating costly reports, data, and other documents.

STATUS

An ad hoc DOD directive reduction group identified 136 acquisition related directives and instructions, and reviewed them to determine whether they should be canceled, consolidated, improved, retained as is, or eliminated as not being a part of the acquisition process. In 1982, the group reported that 23 directives and instructions had been or would be canceled. Based on additional effort directed by the Deputy Secretary of Defense, 31 were identified for cancellation.

DOD's effort to reduce the number of directives did not produce the level of reduction anticipated by the ad hoc group. Although 17 of the 31 directives and instructions to be deleted had been canceled as of March 31, 1985, the remaining 14 had been retained. Before our review, OSD was unaware that action had not been taken on these 14 because they were not monitoring progress. An OSD official told us that although OSD has not estimated a reduction in program costs, it believed that further efforts to reduce directives would not significantly reduce costs.

Consequently, OSD redirected this initiative in 1983 to focus on the reduction of unnecessary contract requirements, referred to as "streamlining," which OSD believed had a greater potential to reduce costs. Based in part on this effort, the Deputy Secretary of Defense established the streamlining initiative as a long-term solution to eliminate over specification in contracting. It emphasizes "what is needed" and "performance required" rather than detailed "how to" specifications.

We did not evaluate the accomplishments of this initiative as it is still in the early stages of implementation. However, the Deputy Secretary of Defense reported that preliminary results of the streamlining initiative have been encouraging. In an April 1985 testimony before a Subcommittee of the House Armed Services Committee, the Deputy Secretary of Defense cited

the Navy's T-45 Jet Trainer Program as an example, with over 10 percent of the specifications recommended for elimination, and about 70 percent being tailored or modified.

Our program managers' questionnaire results also indicated that streamlining can be beneficial in several respects. Nearly three-fourths of the program managers reported that streamlining can be of at least moderate benefit in (1) using contractor ingenuity and experience, (2) encouraging early industry participation, and (3) precluding premature application of military specifications. In addition, about 79 percent of the program managers reported that streamlining would help, at least to some extent, in producing operationally suitable and supportable designs.

OBSERVATIONS

DOD has achieved some progress in reducing the number of its directives. OSD has redirected the initiative toward streamlining contract requirements which OSD believes has a greater potential to reduce costs.

INITIATIVE NO. 15

Funding flexibility.

PURPOSE

The purpose of this initiative is to give DOD more funding flexibility by (1) obtaining specific statutory authority to transfer funds from procurement to research and development for individual weapon systems without prior approval of the Congress and the Office of Management and Budget and (2) increasing reprogramming thresholds for both procurement and research and development programs. Transfers, which require specific statutory authority, are movements of funds between appropriation accounts.

Although it has general transfer authority, DOD maintains that as a practical matter this authority does not provide it with sufficient flexibility to transfer funds between procurement and research and development accounts. Under DOD's current authority, the Secretary of Defense, before transferring funds, must determine that such action is in the national interest and must obtain approval for such action from the Office of Management and Budget. Moreover, DOD states that its ability to effectuate such transfers is further restricted by its current arrangement with the Congressional Oversight Committee which "requires" the Committee's prior approval for transfers. According to DOD, these requirements are time consuming and effectively negate its independent use of the transfer authority. As a result, DOD sought specific statutory authority to transfer, without restriction, funds appropriated for procurement of individual weapon systems to the corresponding research and development account solely upon the determination of the Secretary of Defense that such action is in the national interest.

Reprogrammings, which do not require statutory authority, are movements of funds within accounts. DOD states, however, that under its reprogramming arrangements with the Committee on Appropriations, it may only reprogram, without first notifying the Committee, amounts not exceeding designated dollar thresholds. DOD sought an increase to \$25 million for the \$5 million procurement reprogramming threshold, and an increase to \$10 million for the \$2 million research and development threshold.

STATUS

The services consider this initiative complete, but the objective was not fully achieved. OSD recognizes this but we were told it has discontinued action on this initiative.

The Congress increased reprogramming thresholds for procurement to \$10 million and for research and development to \$4 million in 1981; both increases were less than DOD requested. DOD, however, has not been given the requested specific statutory transfer authority because, according to an OSD official, DOD could not demonstrate any efficiencies or cost savings to be gained. Program managers' responses to our questionnaire show that during fiscal years 1983 through 1985, about 40 percent of these managers reported reprogramming of funds at levels below thresholds requiring congressional approval. The success they reported in obtaining the total amount requested from DOD below these thresholds declined from 80 percent in fiscal year 1983 to 62 percent in fiscal year 1985.

DOD believes this initiative is complete because the Congress has approved changes that represent at least a compromise to DOD's original intent in announcing this initiative. We agree and have indicated full implementation with achievement of some results.

INITIATIVE NOS. 17, 24, AND 28

Acquisition decisionmaking process.

PURPOSE

The objective of these initiatives is to decentralize acquisition decisionmaking, and thereby reduce the administrative time and cost associated with major decision points in the acquisition process for major weapon systems.

STATUS

Three initiatives involving the Defense Systems Acquisition Review Council (DSARC) relate to the above objectives. DSARC is the top level DOD body for providing advice and assistance to the Secretary of Defense on matters relating to the acquisition of major systems. The three initiatives are:

- Reduce the number of DSARC milestones.
- Increase the criterion for DSARC review.
- Decrease DSARC briefing and data requirements.

We agree with DOD's position that these initiatives have been fully implemented based on the following actions.

- The number of major decisionmaking milestones in the acquisition process involving the Secretary of Defense has been reduced from four to two--requirements validation and program go-ahead through full-scale development. The milestone to initiate a major weapon program is now completed as part of the budgeting process. (See p. 49 for more discussion.) The fourth milestone decision to begin production has been delegated to the services when the program is within certain thresholds, including performance, cost, and schedule targets. In addition, the services, with the approval of the Secretary of Defense, can combine or omit phases in the acquisition process.
- The dollar criteria specifying which weapon systems are to be reviewed by the Secretary of Defense was increased from \$100 million to \$200 million for research and development and from \$500 million to \$1 billion for procurement (fiscal year 1980 dollars).
- DOD reduced the amount of documentation required for major milestone reviews by about one-half.

The President's Blue Ribbon Commission on Defense Management subsequently examined the major acquisitions' decisionmaking process. It found that the acquisition system has become more bureaucratic, more encumbered, and more unproductive. The Commission believed the diluted authority for program execution and accountability for results was even worse. To address this situation, the Commission recommended establishing short, unambiguous lines of authority in the acquisition process by

- creating a position of Under Secretary of Defense (Acquisition),
- establishing Service Acquisition Executives, and
- appointing Program Executive Officers within each service.

Under the Commission's proposal, the Under Secretary of Defense (Acquisition) would have full-time responsibility for managing the defense acquisition system to include supervising the performance of the entire acquisition system and setting overall policy for research and development, procurement, logistics, and testing. The Service Acquisition Executives would appoint a number of Program Executive Officers who would be responsible for a limited number of acquisition programs. Program managers for these programs would be responsible directly to their respective Program Executive Officers and, on program matters, report only to this Executive Officer.

In addition, the Commission recommended establishing a Joint Requirements Management Board which would be chaired by the Under Secretary of Defense (Acquisition). The Board would replace DSARC by assuming its current responsibilities and more. The Board would play an important role in defining weapons requirements, selecting programs for development, and providing early trade-offs between cost and performance. The timing and number of the Board's decisionmaking milestones closely parallel those of DSARC except that the Board would authorize high-rate production for all major systems rather than only those exceeding certain planning thresholds under DSARC.

Our findings parallel those of the Commission's in several respects. Program managers responding to our questionnaire indicated that they lacked the authority needed to do their jobs and that the acquisition decisionmaking process remains burdensome. About one-half of the managers reported that the authority they now have is marginally adequate to very inadequate. Moreover, about 53 percent believed that the acquisition improvement program has made little or no difference in the acquisition process and an additional 4 percent believed

INITIATIVE NO. 20

Improve the source selection process.

PURPOSE

The purpose of this initiative is to improve the source selection process by placing added emphasis on the contractor's past performance, schedule realism, facilities planning, and cost credibility.

STATUS

To implement this initiative, the Deputy Secretary of Defense required

- establishing a DOD-wide system for recording, documenting, and sharing information on contractor performance and
- modifying DOD policy to emphasize contractor past performance, schedule realism, and cost credibility in the source selection process.

The first of these actions has not been accomplished. The consensus within DOD is that a system on contractor performance is not needed. The source selection policy contained in DOD Directive 4105.62, "Selection of Contractual Sources for Major Defense Systems," was revised on September 9, 1985, which, according to DOD, addresses the thrust of this initiative.

DOD officials told us that data on the contractor's past performance and ability to perform on any new contract proposal is already available through the administrative contracting officer, procurement contracting officer, and program manager. In commenting on our draft report, DOD considered this initiative fully implemented. According to 37 of the 42 program managers responding to our questionnaire and reporting that bidders on their programs were former DOD contractors, contractor's past performance is formally evaluated during the selection process. Most of the managers reported that such evaluations increase the likelihood of selecting a contractor who can best meet program cost, schedule, and performance objectives. Despite this, we consider this initiative to be only partially implemented because the DOD-wide system on contractor performance proposed under this initiative has not been established.

INITIATIVE NO. 21

Standardization of operational and support systems.

PURPOSE

The purpose of this initiative is to develop and use standard operational and support systems to achieve earlier deployment and better support of weapon systems.

STATUS

The Joint Logistics Commanders reported in September 1984 that staff actions taken under this initiative were complete and that the initiative was institutionalized as part of the acquisition process. They concluded that no further action was required on this initiative. However, a report issued only a few months before by R. B. Toth Associates,¹⁶ indicates that DOD has not fully implemented this initiative, nor fully achieved its objective.

The Toth report, commissioned by the Under Secretary of Defense for Research and Engineering, found shortcomings in the Defense Standardization and Specification Program resulting from DOD's decentralization efforts and the parochial attitudes of the services. Among these shortcomings were

- little action taken by the services to translate OSD's broad objectives into priorities or specific targets and tasks;
- military personnel responsible for standardization are obligated to their commands and perform tasks important to their commands at the expense of coordinated programs;
- each service budgeting for standardization independently and disbursing funds differently, making it difficult to coordinate and track the program; and
- varying degrees of effort and support for standardization.

¹⁶An Assessment of the U.S. Defense Standardization and Specification Program, R. B. Toth Associates, Jan. 1984.

We found similar problems in our past evaluations of the services' standardization efforts.¹⁷ The recognized savings potential from standardization is significant. Realizing this potential has proved to be extremely difficult.

The services themselves had identified the need to control spiraling avionics costs and in response had established a joint committee in 1980 to ensure greater avionics standardization. Because of the potential savings involved and the increased management attention focused on standardizing avionics equipment, we evaluated the committee's efforts between 1980 and 1983 to standardize five core avionics systems. The committee concentrated on "core avionics" to promote success and credibility in its initial efforts. Standardizing these avionics was not expected to be controversial because, unlike the "mission avionics," they fulfill requirements, such as communications and navigation, common to all aircraft and involve low-risk technology. The committee estimated that \$770 million could be saved if these systems were developed and installed on military aircraft.

Although the committee selected what it believed were the most feasible candidates for standardization, we found that avionics standardization was not occurring as rapidly as it could, primarily because of funding deficiencies coupled with insufficient high level management commitment to implement stated policies. As a result, contracts had been delayed and none of the systems were available for use. We reported that these factors have adversely influenced similar efforts for at least the past 10 years, and as a result, only modest progress has been made in light of the many opportunities available. We concluded that unless the services provide high level management attention to resolving funding deficiencies and implementing standardization policies, recent standardization efforts in such areas as avionics may fare no better than past standardization attempts.

DOD recognizes that standardization has significant potential, and has made some progress since our report in standardizing core avionics systems and initiating several actions to improve standardization in general. For example, contracts were awarded for several of the core avionics systems discussed above during June and July 1985. The Joint Logistics Commanders

¹⁷Increased Joint Avionics Standardization Could Result in Major Economies and Operational Benefits (GAO/NSIAD-84-127, July 10, 1984). Joint Major System Acquisition by the Military Services: An Elusive Strategy (GAO/NSIAD-84-22, Dec. 23, 1983). Need to Reexamine JTIDS Requirements and Architecture (MASAD-82-28, Apr. 2, 1982).

of the services also took steps to establish a formal mechanism for reviewing and selecting joint acquisitions of subsystems. Moreover, DOD has established specific budget program elements for developing standardized core avionics equipment as tools to help ensure adequate program funding and management support.

OBSERVATIONS

Although DOD considers this initiative complete, we believe that the evidence suggests that the problems are longstanding and defy ready solution. Continued high level management attention stressing the necessity for standardizing where feasible is a prerequisite to meaningful progress.

the program has had a negative effect. The managers listed several improvements still needed, including decreasing management oversight and providing program managers more authority. Making these improvements could improve program stability--over 70 percent of program managers responding that their programs were stable at the beginning of fiscal year 1986 attributed this, in part, to having appropriate levels of authority and responsibility. Our report¹⁵ dealing with key program management personnel discusses the role and responsibilities of the program manager in greater detail.

Furthermore, the improvement program has resulted in little or no reduction in time spent preparing for major acquisition milestone reviews according to 65 percent of the 26 program managers who indicated they had prepared for these reviews during fiscal years 1983 through 1985. OSD and service acquisition officials told us that more can be done to reduce the services' administrative requirements in preparing for OSD reviews. Some of these officials believe that the excessive administrative burden results, in part, from the multiple layers of organizational review and coordination points within the services. The Army has recently prepared a guide to assist program managers in preparing for program reviews. Better prepared program managers reporting only to Program Executive Officers should reduce the number of prebriefings necessary for preparing for major briefings. The other services may also gain from using a similar guide to the extent they are experiencing similar difficulties.

OBSERVATIONS

Determining the appropriate level of control which the Secretary of Defense must retain in order to manage DOD's programs effectively and efficiently is an extremely difficult decision. The Commission's proposals should help by delineating more clearly the program manager's responsibilities and better pinpointing the authority and accountability for carrying them out.

¹⁵DOD Acquisition: Strengthening Capabilities of Key DOD Personnel in Systems Acquisition (GAO/NSIAD-86-45, May 12, 1986).

INITIATIVE NO. 19

Forecasting business base conditions at major defense plants.

PURPOSE

The purpose of this initiative is to develop and maintain a data base covering business base conditions at major defense plants for use in planning acquisition strategy and developing realistic cost estimates.

STATUS

The OSD Cost Analysis Improvement Group (CAIG) maintains the DOD central files for business base forecasts at selected major defense plants. A list of defense plants is maintained and updated as business conditions dictate. Administrative contracting officers for procuring offices which had over \$25 million in business in the prior fiscal year annually submit 3- or 5-year forecasts to the CAIG. The forecasts generally contain (1) projected staff years of effort by year for each government item, (2) projected dollar volume/quantities per year for each item, (3) projected overhead rates, and (4) comments such as where savings are achievable by changes in volume/production rates.

While we were told that most information is maintained manually, computerized data are maintained on the existing Contract Cost Data Reporting System. Conversion to an automated dial up system is underway and expected to be completed by 1987. A CAIG cost analyst told us that the new dial up system is expected to overcome poor quality control and timeliness under the present system. Twenty-three, or about 74 percent, of the 31 managers responding to our questionnaire who reported that this initiative had affected their programs, reported that knowledge of the contractor's business base assisted them at least to some extent in planning their programs.

INITIATIVE NO. 22

Provide more appropriate design to cost (DTC) goals.

PURPOSE

The purpose of this initiative is to better control weapon systems costs by providing contractual incentives to industry that more closely associate DTC goals with actual costs incurred.

STATUS

In December 1981, the Under Secretary of Defense for Research and Engineering issued interim guidance for DTC contract incentives. This guidance outlined procedures for rewarding contractors who demonstrate that they have achieved DTC requirements and penalizing those who do not. To ensure implementation, a revised DOD directive incorporating this guidance was issued in April 1983.

We were told that work under this initiative was closed when DOD issued the new directive. This initiative was a restructuring of earlier DTC efforts that had been in existence since the early 1970s. These earlier efforts were based on "paper" analysis with contract award fees based on trade studies. In contrast, this initiative associates award fees with actual costs achieved during early production runs. In 1984, the services issued guidelines that implemented the DOD directive, and the Joint Logistics Commanders reported that this initiative had been institutionalized as part of the on-going systems acquisition process and required no further follow-up action.

We disagree with DOD's position that this initiative has been fully implemented because the DTC incentives are not being widely used, and OSD is not monitoring the extent of use. DOD officials overseeing this initiative could not provide examples of successful applications of this approach because they were not monitoring its implementation. About 84 percent of the 50 program managers responding to this issue in our questionnaire reported that basing DTC incentives on actual production costs results in cost savings--the amount would be substantial according to about one in four managers. However, only about 18 percent of the managers reported using these incentives in their contracts, with one-half of these involving production contracts. The DTC approach has recently received renewed emphasis in DOD. For example, the Navy has identified the V-22 aircraft development program as their first weapon system to receive enhanced DTC attention.

OBSERVATIONS

The thrust of this initiative, to reward contractors for demonstrated results, not anticipated achievement, is commendable and deserves full and active support within DOD. It represents one reasonable method for encouraging contractors to produce weapons within cost targets. However, DTC incentives are not being monitored by OSD, and responses to our questionnaire indicate that these incentives are not widely used. This suggests that DOD needs to continue to provide top level management attention to fully implement this initiative. In commenting on our report, DOD stated that a guide and a military standard to encourage greater use of DTC contract clauses will be available within a year. DOD added that at least one service is monitoring the use of DTC contract clauses, but that OSD has no plans to monitor this due to the thrust to delegate program management to the services.

INITIATIVE NOS. 25 AND 29

Integrating the acquisition decisionmaking process with the budgeting process.

PURPOSE

The purpose of these initiatives is to help ensure that (1) proposed new program starts are affordable within DOD's planning, programming, and budgeting constraints and (2) the acquisition decisionmaking milestone reviews consider whether sufficient resources have been committed to carry out the program. This also serves to enhance overall program stability to the extent that total program funding is identified and budgeted.

STATUS

Two initiatives relate directly to achieving the above purposes:

- Reviewing proposed major new program starts during the budgeting process.
- Reviewing program funding during major acquisition milestone reviews.

DOD has implemented the first initiative by requiring the services to submit documentation to OSD with their annual budgets justifying all proposed new major program starts. OSD officials had differing opinions as to the value of this initiative. One official said that under the current system OSD is better able to critically assess the affordability of major new starts because linking acquisition decisions to the budgeting process more directly subjects the new starts to budgetary constraints. This was not as likely under the old system because acquisition and budgeting decisions were generally made at different times by different officials using different documents. Another OSD official told us that the timing of the decisions to initiate new starts, but not necessarily the quality of these decisions, has changed. This individual said that due to the compressed time frames and the multitude of issues to be resolved during the budget process, insufficient effort may be devoted to reviewing proposed major new starts. DOD has also required the services to plan weapon systems development and acquisition on the basis of adequate funding by documenting, at major acquisition milestone decisions, whether funding is available to execute the program as designed.

DOD's progress in reducing the number
of major new starts

In April 1985, OSD reported some success in reducing major new program starts from 15 in fiscal year 1983 to 10 in fiscal year 1984, and 4 in fiscal year 1985. When we discussed these figures with the responsible OSD official, we were told that OSD had canceled 1 program and redesignated several others as less than major systems--lowering the 3-year total from 29 to 19.

The OSD criteria for defining major weapon systems is based on a 1982 DOD policy change doubling the thresholds for defining major weapons. (See p. 39.) Consequently, the number of major new starts is lower than would have been reported using the old criteria. We were unable to determine precisely how much lower due to limitations in available budget data and lack of consensus within DOD as to what point in time a system becomes a new start. However, using criteria¹⁸ we developed for making this determination, we were able to estimate the relative effect the change in major system definition had on new starts. Officials in all three services overseeing new start activities agreed that our criteria were appropriate for estimating the relative reduction in major new starts achieved by merely doubling the dollar criteria for defining major systems. More specifically, we identified at least 5 and possibly up to 19 additional major new starts, depending on what the total anticipated costs are eventually determined to be, using the old criteria when compared to the number arrived at using the new criteria. We also identified 5 additional major new starts meeting the new criteria which if combined with the 19 recognized by OSD total 24.

¹⁸Under our criteria, a program becomes a new start in the first year it receives funds for advanced or engineering development. In addition, the program must meet two other conditions to be considered a major weapons new start: (1) total development or procurement costs are expected to exceed DOD criteria for defining a major new start (see p. 45) and (2) serial production is expected, thus eliminating programs such as major construction projects that are not weapon systems.

DOD's progress in identifying program funding during major milestone reviews

The DOD Inspector General recently reported¹⁹ that documentation the services provided at major acquisition milestones reviews is not always adequate. The Inspector General found that the six major programs reviewed did not adequately define the source or amount of resources needed to carry out the program. The Inspector General concluded that this has limited DOD's progress in improving program stability.

OBSERVATIONS

Our analysis indicated that DOD has overstated its accomplishments in reducing the number of major new starts during fiscal years 1983 through 1985, and according to the DOD Inspector General, has not consistently followed procedures designed to ensure that sufficient resources are committed to carry out major acquisitions. The reorganization being proposed by the President's Blue Ribbon Commission on Defense Management (see p. 40) addresses the objectives of these initiatives. More specifically, the Joint Requirements Management Board should have the necessary authority to address these problems directly if the Commission's recommendations are implemented.

¹⁹Summary Report on the Audit Effectiveness of the Defense Acquisition Review Council (DSARC) Process (No. 85-009, Oct. 22, 1984, by the Office of the Inspector General, DOD).

INITIATIVE NO. 26

Revise DSARC membership.

PURPOSE

The purpose of this initiative was to give the services a greater and more active role in the major systems acquisition process.

STATUS

This initiative has been implemented by revising the DSARC membership, which gives the services a greater and more active role in the acquisition process. Under the revision, the service secretary from the service responsible for the system under the DSARC review has been added as a member of DSARC. In the case of joint programs, the service secretaries of all involved services are members. As noted on page 40, if the recommendations of the President's Blue Ribbon Commission on Defense Management are implemented, the Joint Requirements Management Board will replace DSARC.

INITIATIVE NO. 27

Retain Under Secretary of Defense for Research and Engineering as the Defense Acquisition Executive.

PURPOSE

The purpose of this initiative was to clearly designate the principal advisor to the Secretary of Defense for defense acquisitions.

STATUS

DOD completed action under this initiative by designating the Under Secretary of Defense for Research and Engineering as the Defense Acquisition Executive. Since that time, DOD has twice redesignated this position--once in a newly created position, the Assistant Secretary of Defense for Acquisition, and later in the Deputy Secretary of Defense position. The President's Blue Ribbon Commission on Defense Management recommended establishing a new position, Under Secretary of Defense (Acquisition), to be designated the Defense Acquisition Executive. The Congress recently enacted Public Law 99-348 creating this position. The Senate has not yet confirmed the Administration's nomination to the new position.

INITIATIVE NO. 32

Increase competition.

PURPOSE

The purpose of this initiative is to increase the use of competition in the acquisition process to reduce costs, improve contractor performance, and enhance the industrial base.

STATUS

In 1983, a high level DOD management group established several objectives to increase competition. They included

- increasing management attention on competition,
- increasing competition in subcontracting and improving subcontract competition reporting,
- clarifying DOD policies on contractor proprietary rights to technical data,
- improving early planning and market research activities, and
- encouraging interdisciplinary approaches for identifying and dealing with inhibitors to competition.

DOD actions to implement the first three of these objectives are continuing under the high level DOD management group, while DOD considers actions on the last two to be complete. DOD's actions are also being influenced by the CICA which mandates full and open competition. CICA became effective in April 1985.

Increased management attention

DOD emphasized the need for additional competition during weapon systems production after finding that (1) 2 percent of the noncompetitive contract awards account for about 70 percent of the total value of these awards and (2) most of the noncompetitive funds are spent during production, which occurs after earlier competition during development. As a result, the Deputy Secretary of Defense, in March 1984, directed the services to identify major programs that would possibly benefit from additional competition during production. One method being used is dual sourcing--a competitive procurement technique which splits contract awards between two or more sources, with the larger share usually going to the supplier offering the lower price. The military services have been slow in responding to

OSD requests for dual-sourcing candidates. In an effort to formalize service responses as part of the budget process, OSD subsequently included a requirement to identify dual-sourcing candidates in the fiscal year 1986 budgeting process. The response was disappointing--the services identified two candidates neither of which were major systems. OSD was attempting to obtain this information and funding requirements for dual sourcing from the services through the fiscal year 1987 budgeting process at the time of our review.

Nearly 68 percent of the 53 program managers responding to our questionnaire on this issue reported that at least one competitive technique was introduced into their program during fiscal years 1983 through 1985. The most frequently used techniques were selecting at least one contractor using competition, selecting a second source at the subcontractor level, and establishing competition goals and plans for production. They also reported that a prime contractor second source was selected for production in 9, or 25 percent of the 36 applicable programs in our survey. This indicates more second sourcing for major systems than the services reported in response to the Deputy Secretary of Defense's March 1984 request for dual-sourcing candidates discussed above. However, the time periods covered for the data being reported in the two instances are sufficiently different to render the results not comparable. The March 1984 request sought a prospective list of dual-sourcing candidates expected to enter full-scale development during the following 2 years. Our questionnaire results included systems actually dual sourced during fiscal years 1983 through 1985.

We have previously reported²⁰ that dual sourcing can reduce costs, but that the decisions to dual source must be carefully analyzed on a case-by-case basis. For example, we cited savings of \$15 million in fiscal year 1985, with a potential additional savings of nearly \$20 million in fiscal year 1986, due to competition between dual-source contractors on the Hellfire missile.

Increased competition in subcontracting

In March 1984, the Deputy Secretary of Defense also directed the services to encourage more effective subcontract

²⁰Cost Effectiveness of Dual Sourcing for Production Price Competition is Uncertain (GAO/NSIAD-84-111, Aug. 31, 1984). Potential Dollar Reductions to DOD's Fiscal Year 1986 Missile and the Lightweight Multipurpose Weapon Procurement Programs (GAO/NSIAD-85-138, Sept. 9, 1985).

competition based on an Army study revealing the significant potential in this area. The Deputy Secretary provided broad guidelines to achieve this, but did not encourage general reporting of the extent of subcontract competition due to concern for the burden this would put on the contractors. We could not determine the extent of subcontractor competition because no mechanism exists for reporting the level of such competition. A 1983 OSD study showed that about 27 percent of subcontracts were competitively awarded during fiscal year 1982. The Air Force has proposed a DOD policy, which is being reviewed within OSD, requiring a form of subcontract competition reporting.

Contractor proprietary rights

The Deputy Secretary of Defense has reported that contractor proprietary rights to technical data has been one inhibitor to competing procurement of spare parts and subsystem components. In March 1984, the Deputy Secretary informed the services of the need to reduce the amount of data being encumbered by proprietary restrictions. The Congress recently acted to improve DOD's access to technical data by passing the Defense Procurement Reform Act of 1984. DOD is in the process of revising its regulations to conform with this act. An Air Force official told us that the policy changes will aid competition in acquiring spare parts, but achieving results will require close monitoring of implementation due to the complexities of this issue and contractors' interests in preserving their data rights.

Improving early planning and market research while dealing with inhibitors to competition

The DOD management group considered the remaining objectives to be complete when their efforts culminated in Deputy Secretary memorandums to the services and revisions to regulations. In September 1984, the Deputy Secretary directed the services to include market research activities in the acquisition process to increase competition in acquisitions by identifying potential competitive sources. Also, in August 1984, the Deputy Secretary disseminated a report, developed by the management group, to the services on various policies, procedures, and practices that tend to inhibit competition. The number of these inhibitors was extensive, including for example, lack of funds, uneconomical buy quantities, and prechosen products. In August 1984, DOD issued a policy which for the first time specifically addresses certain inhibitors to competition, and directs market research to identify competitive opportunities. An OSD official told us that there are no plans to monitor service activities to address these inhibitors or monitor market research activities due to DOD's policy of

"controlled decentralization" wherein the services are responsible for implementation.

The Blue Ribbon Commission in its report called for increased use of competition. It specifically acknowledged the major efforts DOD has made in this direction while stating that more can be done. The focus, according to the Commission, should be on achieving more effective competition using the competitive procurement techniques of industry as a model.

OBSERVATIONS

Full and open competition can be an effective strategy for reducing acquisition costs and achieving other benefits, such as more qualified suppliers and better product quality. In addition, to the extent that competition attracts new bidders while retaining established suppliers, it enhances the viability of the industrial base. We agree with the Blue Ribbon Commission that much more can be done to increase competition. The obstacles are well known. Our past work shows that while these obstacles are formidable, they can be addressed and taken down.

INITIATIVE NO. 33

Defense industrial base.

PURPOSE

The purpose of this initiative is to enhance industrial base responsiveness to DOD's needs. The defense industrial base consists of those private firms and government facilities that produce weapon systems and other items for DOD.

STATUS

In June 1984, the Deputy Secretary of Defense directed that a new industrial base initiative be instituted and that it receive high priority. A DOD top management working group is responsible for implementing this initiative. Although DOD has addressed industrial base issues in the past, as a separate acquisition initiative, they are receiving additional visibility and high level management attention. The working group is relatively new, but according to its chairman, it has undertaken a number of activities to (1) integrate industrial base considerations during the acquisition milestone reviews, (2) encourage the services to consider industrial base issues early in the acquisition process, and (3) assess, through a survey, contractors' surge capabilities.

Directly related to the initiative to improve the defense industrial base is the acquisition improvement initiative to enhance productivity by encouraging capital investments. Key elements of the initiatives are DOD's Industrial Modernization Incentives Program and the Manufacturing Technology Program. The incentives program provides rewards to contractors for capital investments. (See p. 13 for additional details.) The technology program is designed to encourage the use of new production technology by providing money, primarily to defense contractors, to demonstrate practical applications of these technologies in factories producing defense items.

One overall measure for gauging improvements in the defense industrial base is the level of industry capital investment in equipment, buildings, and land for production of defense items. The DOD 1985 Defense Financial and Investment Review report concluded that capital expenditures have increased substantially over the 9-year period through 1983, with this increase being greater in the defense sector than the nondefense sector. We are evaluating the findings of this report. Our preliminary findings indicate that although major investments in the defense industry have increased, investments in the nondefense sector may be proportionately greater.

Over the years, we have devoted much effort towards examining the capabilities of the industrial base. Last year we reported²¹ that DOD has taken actions to improve industrial preparedness planning and to revitalize the responsiveness of the defense industrial base. These actions included a new requirement for the services to annually report the status of the industrial base with recommendations and associated costs to enhance the base. The services' capabilities for meeting this requirement vary. The Army is the only service that has annually documented and reported industrial base status, and thus, should be in the best position to comply. The Air Force prepared its first report in fiscal year 1983 in anticipation of the requirement. The Navy estimates that it may be 2 years before a comprehensive and meaningful production base analysis can be prepared because its automated data base has not been fully developed. DOD has also instituted a surge production annual funding allowance of \$100 million to address specific surge production deficiencies. The Congress did not approve the \$100 million funding requested in fiscal year 1984, due to budgetary constraints. In fiscal year 1985, DOD requested only \$25 million to be used for the Army's contract surge production of the TOW 2 missiles, and the Congress appropriated \$16.2 million. Our report concluded that DOD's actions should, if properly funded and executed, increase the responsiveness of the defense industrial base. However, we also stated that the military services are not taking advantage of opportunities to reduce war reserve requirements to reflect wartime production capability as required by DOD guidance.

In another report,²² we concluded that DOD's data collection methods for assessing the defense industrial base do not produce the consistent, complete, and accurate data needed by industrial preparedness planners and weapon system program managers. For example, we found that the Army did not have information required by DOD on its TOW 2 missile to identify four major warhead items that would likely experience problems during production.

We devised a method assessing the defense industrial base that provided information previously unavailable. By applying this method to selected weapon systems, we found (1) shortages of production machinery, testing equipment, components and raw materials, (2) high reliance on foreign sources for some materials, and (3) limited production sources in some cases due to

²¹Overview of the Status of the Defense Industrial Base and DOD's Industrial Preparedness Planning (GAO/NSIAD-85-69, May 23, 1985).

²²Assessing Production Capabilities and Constraints in the Defense Industrial Base (GAO/PEMD-85-3, Apr. 4, 1985).

widespread use of proprietary processes. Consequently, we concluded that DOD must give greater attention to certain measures in its initiatives to address problems in the defense industrial base. These measures include consistent application of criteria to identify critical items, improved verification and accuracy checks, increased collection of data from subcontractors, and use of a horizontal analysis (evaluates the competition for production resources within each firm) that considers production demands from all the services. Such a composite analysis could identify industrial base shortfalls and help determine priorities for allocating resources. DOD does not, however, plan to conduct this type of analysis, believing that this would entail micromanagement of the military services by OSD.

Finally, our previous report²³ on the manufacturing technology program stated that DOD could improve program management. We concluded that DOD can do more to increase the likelihood that successful project results will be used in defense production. We recommended that there be an early agreement among all concerned to use results of the technology project. We also recommended that DOD develop a policy to specify how and when projects should be evaluated and monitor service implementation of this guidance, and that OSD strengthen its oversight role in the program. Of the 42 program managers reporting that this program was applicable to their weapon's program, and could express an opinion on its effect, 32, or over 76 percent, indicated that the increased support of the manufacturing technology program had enhanced the condition of the industrial base at least to some extent.

²³DOD Manufacturing Technology Program: Management Is Improving but Benefits Hard to Measure (GAO/NSIAD-85-5, Nov. 30, 1984).

AGENCY COMMENTS FROM DODACQUISITION AND
LOGISTICS

(DASD(P)/MSA)

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-8000

10 JUL 1986

Mr. Frank C. Conahan, Director
National Security and International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) Draft Report, "Status of the Defense Acquisition Improvement Program's 33 Initiatives," dated May 2, 1986, (GAO Code 396507/OSD Case 7007). The DoD generally agrees with the report's findings and recommendations. The Department nonconcurs, however, with the GAO finding on multiyear procurement.

Specific DoD comments to GAO findings and recommendations are provided in the enclosure. The opportunity to comment on this draft report is appreciated.

Sincerely,

A handwritten signature in black ink that reads "James P. Wade, Jr." The signature is stylized and cursive.

James P. Wade, Jr.

Enclosure

GAO Draft Report - Dated May 2, 1986
 GAO Code 396507/OSD Case 7007
 "Status of The Defense Acquisition Program 33 Initiatives"
 Department of Defense Comments

FINDINGS

FINDING A: Eight Of 33 Defense Acquisition Improvement Program Initiatives Have Been Fully Implemented. The GAO found that eight of the 33 acquisition improvement initiatives have been fully implemented. According to the GAO, of these eight, expected benefits have been fully achieved in four, as follows:

 Status of the Fully Implemented Initiatives
 and Results Achieved as of August 1985

No.	Initiative Description	Results Achieved	
		Full	Partial
8.	Appropriate contract type		X
17.	Briefing and data requirements		X
24.	Reduce milestones	X	
25.	Link acquisition/budgeting		X
26.	Acquisition council	X	
27.	Defense Acquisition Executive	X	
28.	Thresholds for milestone reviews	X	
29.	Integrate acquisition/budgeting		X

With respect to Initiative 27, the GAO found this to be fully implemented and results fully achieved. The GAO noted, however, that the Blue Ribbon Commission has recommended a new position, Under Secretary of Defense (Acquisition), to be designated the Defense Acquisition Executive. (pp. 1-2, pp. 47-48, pp. 63-64/GAO Draft Report)

Now on pp. 2, 40, and 52.

DoD Position: Partially concur. This is a highly subjective finding. Even reasonable men will never see eye-to-eye on the degree of monitoring required to conclude that a management initiative is fully implemented. The DoD, for example, does not consider initiative #8 on appropriate contract type as fully implemented, contrary to the GAO assessment. Recent Navy policy on fixed price contracts in the full scale development phase conflicts with this initiative. There is also a slight contradiction between GAO Finding A and GAO Finding B (p. 31 of draft GAO report) which acknowledges that the trend to increased use of fixed price contracts "may be running counter to the purpose of this initiative."

On the other hand, the DoD disagrees with the GAO on initiative #20 as not being fully implemented. As noted in the DoD position in response to

Finding P, it is the DoD position that this initiative is fully implemented.

FINDING B: Four of the Eight Defense Acquisition Initiatives That Have Been Fully Implemented Have Achieved Only Partial Results. The GAO found that of the eight fully implemented initiatives, four (Initiatives 8, 17, 25 and 29) have achieved only partial results.

- Initiative 8, "Assure Appropriate Contract Type"--The GAO observed that the trend to increased use of fixed price contracts (reported by DoD as 82 percent of all contracts dollars in FY 1985--versus 75 percent in 1982) may be running counter to the purpose of this initiative;
- Initiative 17, "Decrease Defense Systems Acquisition Review Council (DSARC) Briefing and Data Requirements"--The GAO observed that little or no reduction in time spent preparing for major acquisition milestone reviews has resulted;
- Initiative 25, "Reviewing Proposed Major New Program Starts During the Budgeting Process"--The GAO observed that full results had not been produced because compression of decision making during the budget process (at least in the opinion of an official in the Office of the Secretary of Defense) may result in insufficient effort being devoted to reviewing new starts;
- Initiative 29, "Reviewing Program Funding During Major Acquisition Milestone Reviews"--The GAO observed that (according to a DoD Inspector General report) the documentation the Services provided at major acquisition milestone reviews did not, at least in the case of six major programs, adequately define the source or amount of resources needed to carry out the programs.

In addition, with regard to Initiatives 25 and 29, the GAO found that the success claimed by OSD in reducing the number of new major program starts was, in part, due to a change in the criteria of what constitutes a major program. (The GAO reported that according to the old criteria there would have been 29 to 43 new starts from FY 1983 through FY 1985, whereas DoD acknowledges only 19 under the new criteria.) The GAO observed that the Joint Requirements Management Board proposed by the President's Blue Ribbon Commission On Defense Management should have the authority to address these problems directly. (pp. 1-2, pp. 30-31, pp. 47-50, pp. 59-62, GAO Draft Report)

Now on pp. 2, 24-25, 39-41, and 49-51.

DoD Position: Partially concur. With regard to initiative 29, it should be noted, however, that while the service documentation is not always adequate when initially submitted for major acquisition milestone reviews, most discrepancies are resolved before a DSARC decision is made.

Resource summaries are a required part of the documentation supporting milestone decisions. Further, Independent Cost Estimates are usually timed so that their results are also available at the milestone review. Should these items not satisfy the resource information requirements there is ample opportunity to request and to obtain additional resource information. It is the Department's position that ample resource information is generally available at the milestone decision points.

FINDING C: Initiative 2 - Preplanned Product Improvements. The GAO reported that Initiative 2 has been only partially implemented. According to the GAO, the purpose of this initiative is to ensure a lower risk approach to weapon system design to reduce unit costs and decrease the time needed to field new equipment. Although the Deputy Secretary of Defense issued an implementation plan in July 1981 and the Services submitted a list of 26 candidate programs during the FY 1984 budget process, the GAO found that the OSD no longer monitors actions taken under this initiative except when they are surfaced as an issue during a major weapons acquisition milestone review. The GAO observed its questionnaire results indicated that this initiative is having some very positive benefits. Since the initiative is no longer being monitored, however, the GAO observed that the OSD may not be aware of problems or of potential for greater use. The GAO concluded that the OSD needs to continue to monitor implementation of this initiative. (p. 3, pp. 8-9, GAO Draft Report)

Now on pp. 2, 5-6.

DoD Position: Partially concur. The GAO description of the status of the preplanned product improvement (P3I) initiative includes a description that is not accurate. The GAO speaks of P3I involving a conscious decision "to insert advanced technology in deployed systems through planned upgrades." This is a misleading description as the DoD, through its P3I program, attempts to delay high technology (normally involving high risk) insertion to a later time when the high technology is proven out.

FINDING D: Initiative 3 - Multiyear Procurement. The GAO found that this initiative has been only partially implemented, even though a high level working group was established to monitor its implementation. According to the GAO, the purpose of Initiative 3 is to reduce acquisition costs and to improve product quality by stimulating capital equipment investments. The GAO noted that the DoD claimed savings of \$4.7 billion for FY 1981 through FY 1989 due to multiyear contracting. The GAO concluded that, while the DoD claimed savings from multiyear contracting are consistently overstated, savings have nevertheless been substantial. The GAO observed that in February 1986, the Blue Ribbon Commission recommended that the use of multiyear procurement (MYP) should be expanded. The GAO concluded that while the Congress and DoD have worked together to achieve substantial savings through the use of multiyear contracts, the use of this acquisition initiative has been limited (1) by the instabilities in the systems proposed for this strategy and (2) by DoD concerns regarding the loss of flexibility inherent in multiyear procurement. (p. 3, pp. 10-11/GAO Draft Report)

Now on pp. 2, 7-8.

DoD Position: Nonconcur. The DoD strongly objects to the GAO Statement that MYP savings are consistently overstated. The factual basis for this statement is questioned, since the report does not provide any

backup or analysis to support this assertion. This may be based on the GAO preference for showing savings in a discounted form. The Department shows savings in then year dollars because that is the impact they have on the budget. Discounting savings does not result in a better estimate of savings. It is a financial tool to ensure that a desired return is achieved. The Department's savings estimates are as accurate as possible, given the available data, and are not overstated. They are simply stated in a different manner than the GAO saving estimates.

While the DoD acknowledges that instability in funding and system design and loss of funding flexibility are real limitations to the use of this initiative, it should be noted that these subjective statements go only a partial distance in describing these limitations. The Congress plays a major role in this area.

The GAO report indicates that the multiyear procurement initiative has only been partially implemented. While several management reviews have urged greater use of the multiyear concept, and the Department encourages this, it is the Department's position that with potential savings already of over \$8 billion on 48 programs, the initiative is fully implemented into the acquisition process. The fact that all programs are not contracted for on a multiyear basis is not a reason to consider it only partially implemented. With honest application of the multiyear criteria and the need to maintain some future flexibility in the Defense budget, it is unreasonable to believe that all acquisitions can be done on a multiyear basis. This does not mean that the Department is not encouraging greater use of multiyear contracting, but only that there are valid reasons for programs not to employ multiyear contracting.

FINDING E: Initiative 4 - Increase Program Stability In The Acquisition Process. The GAO found that this initiative has been only partially implemented. According to the GAO, the purpose of Initiative 4 is to reduce acquisition costs and time. The GAO observed that program instability leads to uncertainties about the future and forecloses opportunities for efficiencies. (As an example, the GAO noted that planning for production plant capacity is done several years in advance, and changes in production quantities can create idle plant capacity and, therefore, inefficiencies.) The GAO also found that three successive Deputy Secretaries of Defense have continued to commit DoD to this initiative, and that recently the Blue Ribbon Commission reaffirmed the need for stability. The GAO noted that the DoD efforts to stabilize the acquisition process should have been aided by the unprecedented increases in defense spending. The GAO found, however, that despite the large budget increases, the DoD has reported essentially no progress in stabilizing major weapon programs. In addition, the GAO reported that over 45 percent of the program managers it surveyed considered their programs had been unstable since FY 1983, as compared to about 40 percent who considered these programs unstable in FY 1983. The GAO concluded that DoD budgets are generally optimistic and this can lead to programs being stretched out. The GAO reported that most program managers reporting unstable programs in the GAO survey attributed the instability to adjustments by the DoD and the Congress to their systems' five-year plans and budgets. The GAO observed the DoD recognizes that to improve stability it must budget more realistically and establish priorities, so

as to limit the number of new programs and terminate low priority programs. The GAO concluded that to achieve progress in this area will be extremely difficult and will require a continuing DoD commitment. The GAO observed that particularly important is a realistic assessment of likely costs of programs already started, which should then provide the basis for determining how much is available for major new starts. (p. 3, pp. 13-16/GAO Draft Report)

Now on pp. 2, 9-12.

DoD Position: Concur.

FINDING F: Initiative 5 - Encourage Capital Investment To Enhance Productivity. The GAO found that implementation of this initiative is continuing under the Industrial Modernization Incentives Program (IMIP), which has substantial potential benefit to the Government. According to the GAO, the purpose of Initiative 5 is intended to encourage capital investment by DoD contractors to increase their productivity and lower weapon system costs. While a DoD steering group for IMIP has developed draft policy and guidance, which was adequate to address some issues, the GAO found that improved guidance needs to be developed through further analysis and testing of approaches. The GAO reported that, at the time of its review, the DoD planned to incorporate the GAO suggestions for IMIP improvement into its final policy guidance issuance. The GAO also found that the DoD has undertaken other efforts such as (1) expediting payments, (2) negotiating profit levels commensurate with risk and investment, and (3) removing profit limiting provisions of the Vinson-Trammell Parity Act (48 Stat. 503), to encourage productivity through contractor investment in capital equipment. The GAO reported, however, that responses from program managers indicated that the above efforts have had little effect so far in enhancing the industrial base through increased contractor investments. The GAO concluded that the potential IMIP benefits are substantial, but the program needs improvement. (pp. 17-20/GAO Draft Report)

Now on pp. 13-15.

DoD Position: Concur. DoD Directive 5000.44, "Industrial Modernization Incentives Program," was issued on April 16, 1986. DoD FAR Supplement coverage was published in the Federal Register for public comment on May 28, 1986. The DoD IMIP guide is targeted for issuance by mid-July, 1986. This policy incorporates GAO suggestions for improvement, and will provide a sound basis for broader program implementation and achievement of the full benefits that are possible.

FINDING G: Initiatives 6, 11, and 18 - Realistic Budgeting. The GAO found that a primary cause of cost growth has been DoD's failure to budget realistically. According to the GAO, these initiatives are intended to reduce the cost growth in weapon systems resulting from understated and overly optimistic budget estimates, and to enhance program stability. The GAO noted that, in June 1983, the Deputy Secretary of Defense established a high level working group to ensure continued emphasis on these three initiatives and also to examine the applicability of baseline budgeting.

-- Initiative 6, "Budget to Most Likely Cost"--has been only partially implemented. The GAO observed that in 1982 and 1984, respectively, the DoD and the Congress began requiring independent cost estimates. The GAO also noted the DoD had reported adjusting its FY 1985 5-year program

by about \$1.5 billion, to budget more realistically (about 1 percent of the total funds involved). The GAO reported, that its questionnaire results indicated that (1) about 30 percent of program managers thought the independent estimates on their programs would have little or no effect on the likelihood of unrealistic estimate (2) approximately 28 percent thought they would have some effect and (3) over 41 percent reported a moderate, or greater, effect.

-- Initiative 11, "Budget for Technological Risk"--The GAO observed that the DoD has not totally adopted a method to quantify technological risks, as required. The GAO noted that only 25 percent of the program managers responding to its questionnaire reported using a formal quantitative approach to measure technical risk. In addition, most program managers reported that formal assessments minimize performance risk only to some, or to little or no, extent. The GAO also observed that DoD guidance no longer requires identification of contingency funds, because (according to the chairman of the working group) past congressional actions have eliminated contingency funds when they have been identified.

-- Initiative 18, "Budget for Inflation"--The GAO observed that to improve inflation estimates the DoD began using a special inflation index for weapons that was higher than the index for the overall economy. The GAO recently concluded, however, that there was no justification for this special index and recommended that it be eliminated. The GAO reported that this special index was eliminated in the FY 1987 budget, and the size of the index used will be reviewed each year. The GAO noted a report by the Secretary of Defense that cited \$28.4 billion savings due to lower than anticipated inflation in FY 1982 through FY 1985, distributed as follows--(1) \$13.1 billion reprogrammed (approved by the Congress), (2) \$8.9 billion returned to the Treasury, and (3) \$6.4 billion used by Congress in reducing defense programs. According to the GAO, in response to its questionnaire, 57 percent of program managers reported that the index had provided a reasonably accurate estimate of increases in program costs, with the rest about equally divided between "overestimated" and "underestimated."

With respect to baselining, the GAO observed that it is a technique (originally Air Force) for controlling weapon systems costs by documenting formal agreement to the initial, approved program and any later changes to it. The GAO concluded that baselining can be effective. The GAO noted that 70 percent of the program managers responding to the questionnaire reported using baselining on their programs, with three-fourths of these indicated it reduced the likelihood of unrealistically low estimates. The GAO also noted that the Blue Ribbon Commission recommended that DoD should fully institutionalize baselining for major weapon systems entering full scale development. The GAO concluded that risk is a real and ever-present

factor in any development effort and if technical risks are not anticipated, identified and planned for early in the development effort, unexpected and unnecessary cost overruns and schedule delays can result. The GAO observed, however, that historically it has proven difficult to recognize such risk in budgets and this is a matter that will, therefore, require continued attention. (pp. 21-28/GAO Draft Report)

Now on pp. 16-20.

DoD Position: Partially Concur. The use of independent cost estimates (ICE) for research and development efforts has reduced the likelihood of unrealistically low estimates. This is true where there is a good understanding of technical risks involved in a program. If both the Service and DoD fail to recognize those elements which make a high risk program, however, the ICE is of limited usefulness. Recognizing risk levels is difficult at best especially since estimates are made for programs that extend for several years and the estimate is made up to two years before the contractual go-ahead for full scale development.

DoD strives to estimate costs as accurately as possible. In the most recent year's budget, overall cost has declined by nearly 1% on major programs. This is certainly within reason given the difficulties in estimating state-of-the-art program costs.

The draft GAO report indicates that contingency funding is no longer identified in the budget and that no system has been established to base contingency funding on a measurement of technical risk. In the procurement budgets this is not accurate. Major program budgets contain separately identified funding for contingencies such as the change order cost element in aircraft and missile budgets and the program manager growth cost element in shipbuilding budgets. The amounts budgeted in these contingency allowances are based on the technical risk involved in the program. In shipbuilding, for instance, the relative size of the program manager's growth allowance is determined by the complexity of the ship, whether it is a conversion or new construction. There is a concern in the Services that a general awareness of the existence of any other reserve accounts will result in an increased tendency on the part of contractors to overrun at the same time as the DoD staff and Congress cut back the reserve.

The draft GAO report also indicates that the GAO recently concluded that there was no justification for the special inflation index for weapons and recommended its elimination. The GAO conclusion reflected the DoD and the OMB decision to remove the special procurement inflation factor from the FY 1987 budget and the budget plan through FY 1991. This decision was made because the actual inflation currently experienced in major weapons is in line with the rate of inflation experienced in the general economy. This is confirmed in data prepared by the Commerce Department. The decision to delete the multiplier in FY 1987 in no way eliminates the justification for using a special rate in FY 1983 to FY 1986. Lower inflation projections for the future do not obviate inflation experienced in the past. Historical data show that inflation for certain categories of defense purchases did not equal that experienced in the general economy. Using the GNP deflator to budget for all DoD purchases may not always provide adequate funding and it may again be necessary, at

some time in the future, to budget for major weapons at a rate greater than the GNP.

FINDING H: Initiative 7 - Economic Production Rates (EPR). The GAO reported that this initiative has been only partially implemented. According to the GAO, the purpose of Initiative 7 is to reduce cost and time needed to field a weapon system by producing systems at more economical rates. The GAO reported that a high level working group to oversee efforts under this initiative was set up in June 1983, but was disbanded in early 1984. The GAO found that, nevertheless, the DoD has made some progress in funding systems at EPRs. The GAO noted that of the 50 weapon systems monitored, the percentage funded at least at the minimum EPR, increased from 48 percent in FY 1984 to 57 percent in FY 1985. While rates of production are affected by factors such as technical problems, the GAO found that data from program managers (with programs in full scale development during FY 1983 through FY 1985) show that funding insufficiencies and fluctuations were among the major inhibitors to producing weapons economically. The GAO concluded that this suggests that fully implementing realistic budgeting could result in greater economies. The GAO further noted in a recent report (OSD Case 6893) it had found that the OSD had not provided adequate guidance to the Military Services for computing economic production rates, leading to inconsistent reporting within and among the Services. In other cases, the GAO reported that the techniques were faulty. In addition, the GAO had found that the DoD is providing only limited visibility to economic production data in the budgeting process. The GAO concluded, however, that the concept of EPRs is sound and can be used more effectively as a budgeting tool. The GAO again cited certain of its prior recommendations which called for (1) specifically defining information the Services are to report (including unit cost data at alternative production rates) and (2) establishing formal, written criteria for periodically reviewing and selecting weapons systems to be included in the economic production rate reporting process.

Now on pp. 21-23. (pp. 27-29/GAO Draft Report)

DoD Position: Partially concur. The DoD has not made a conscious decision to fund some major systems at less than economic rates to provide funding for other systems at economic rates, as is stated by the GAO.

The DoD agrees that the economic production rate concept is sound and issued specific guidelines on March 31, 1986, on what the Services are to report.

Economic production rates are reviewed periodically in the PPBS process as a management issue taken into consideration by the Defense Resources Board. Formal selection of weapon systems reported is made on a yearly basis at the time of preparing the annual POM Preparation Instructions. The principle criterion used in constructing the list is high cost sensitivity to production rate. The list of systems will generally include those major systems whose unit cost varies significantly with change in quantity, but some flexibility to include or exclude individual systems on a case-by-case basis must be retained. Factors other than rate sensitivity may govern and, in fact, preclude selection such as (1) high cost, low volume items, e.g. ships and space equipments; (2) low inventory requirement items, e.g. items being bought for attrition

or keyed to other acquisitions (LAMPS helicopters for Navy destroyers); and (3) items being phased out of production or procured to maintain a warm production base (some aircraft and several types of ammunition). The list is adjusted annually in consultation with the Services.

FINDING I: Initiatives 9, 12, 16, 30, and 31 - Improve Weapon Systems Readiness And Support. The GAO found that some of these initiatives have been fully implemented while others have not. According to the GAO, these initiatives are intended to improve the logistical supportability and maintainability of weapon systems deployed in the field. The GAO found that DoD has implemented Initiative 9 "Emphasize Readiness and Support Early in the Acquisition Process," by revising DoD policies to require that resources to achieve readiness receive equal emphasis to those applied to cost, schedule, and performance. The GAO noted that OSD officials report they monitor the application of this policy for major weapon systems. According to the GAO, in response to its questionnaire, program managers generally reported that these issues are receiving some attention to a very great amount of attention.

Similarly, for Initiative 12, "Adequately Fund Test Hardware," the GAO found that the DoD has revised its policies to emphasize the importance of adequate test hardware. Here again, the GAO reported that OSD officials said they monitor implementation through the formal weapons acquisition process. The GAO cited one of its previous reports (OSD Case 6663) as indicating that several major weapon systems experienced problems in production because performance had not been adequately demonstrated, in part, because too few prototypes were available for testing (i.e., the Air Force's Air Launch Cruise Missile).

The GAO also found that the DoD is implementing Initiative 16, "Increase Contractor Incentives to Improve Weapons' Support and Readiness," by implementing legislation requiring the use of contractor warranties on reliability. The GAO observed, however, that while the Air Force has established a Product Performance Agreement Center as a clearinghouse on warranties, the other Services have not provided funding support.

With regard to Initiative 30, "Increase the Visibility of Logistics and Support Resources Decisions," the GAO found that in August 1984, the Deputy Secretary of Defense had directed the Services to define steps to validate support requirements and track the associated funding within three years. The GAO noted that the Services' response to this direction recognized that implementation would be a long-term process because of fundamental changes required in the DoD financial system to accomplish such tracking in the budget process (particularly for items such as spares).

According to the GAO, Initiative 31 "Improve Reliability and Supportability of Weapons with Accelerated Acquisition Cycles," has been implemented, but with undesirable results in some cases. The GAO reported that DoD policy requires that accelerated strategies for major weapon systems place additional emphasis on supportability design requirements (such as reliability and maintainability), and provide additional funding earlier in development cycle to achieve readiness objectives. The GAO

found, however, that even though the OSD is monitoring implementation of this initiative, the results are undesirable in some cases because of the DoD policy permitting the Services to build concurrency into their weapon systems acquisitions. The GAO concluded that the DoD and Congress have taken some actions that should eventually result in more reliable and supportable weapon systems. The GOA further concluded that the DoD appears to be giving weapons' reliability and support issues higher priority in the acquisition process and has taken steps to increase the visibility of these issues in the budget process. The GAO observed, however, that the Services are correct, full implementation is a long-term process that will take years to complete due to the fundamental changes needed in the DoD financial systems to account for support funds by weapon systems. (pp. 32-36, GAO Draft Report)

Now on pp. 26-29.

DoD Position: Concur. There are several observations made by GAO which give erroneous impressions. The GAO, however, describes (p. 32) the status of the readiness and support initiatives as not being fully implemented because they involve long term fundamental changes. The DoD view is that the initiatives have been implemented, and if enhancements are needed through more fundamental changes, then they will be considered where it is cost effective. The ALCM program is cited by the GAO (p. 34) as an example where test quantities limited adequate performance evaluations. ALCM test quantities were, however, set prior to the April 1981 DAIP initiative. The GAO implies (p. 34) that because the other Services are not funding the Air Force Product Performance Agreement Center, warranties are, therefore, not being considered. The other Services are fully implementing warranties in all appropriate contracts. The Air Force center was made available to the other Services as an additional resource. The GAO implies (p. 35) that DoD policy, which requires additional emphasis on supportability design, was implemented with "undesirable results." The undesirable results cited may be due to concurrency, but are not due to implementation of this initiative.

FINDING J: Initiative 10 - Reduce The Administrative Cost And Time To Procure Items. According to the GAO, the purpose of Initiative 10 is to reduce the administrative costs and time for procuring items by raising the threshold authority for small purchases and eliminating unneeded paperwork. The GAO noted that the 1983 Acquisition Improvement Program Report concluded that the implementation of this item was essentially complete, even though all action items were not accomplished. The GAO also noted that the OSD has not determined whether any time or cost saving have resulted. The GAO questioned, however, whether the objective of the initiative had been accomplished in view of indications of a dramatic lengthening in administrative lead time over the last two years. (The GAO cited a recent Air Force Logistics Command report indicating that lead times for small purchase contracts and for negotiated contracts over \$6 million had increased, and that justifications for large sole-source procurements required by the 1983 amendment to the Small Business Act had extended the contracting process.) The GAO reported that data from its questionnaire showed mixed results--in many instances actions had not been applied to programs, but where they had, time had been reduced. According to the GAO, program managers attributed failure to reduce procurement time to (1) sole-source justifications, (2) preaward surveys by the Defense Contract Audit Agency, and (3) legislative requirements. The GAO

concluded that, while DoD has initiated several actions to simplify the acquisition process, there have been other countervailing actions which may have resulted in a more lengthy and costly process. (pp. 37-40, GAO Draft Report)

DoD Position : Concur.

FINDING K: Initiative 13 - Government Legislation Related To Acquisition. According to the GAO, the purpose of Initiative 13 is to identify and revise, as necessary, acquisition related laws and regulations that are an unnecessary burden on the acquisition process. The GAO found a DoD working group identified ten legislative provisions that constituted a burden on the acquisition process. The GAO reported that two provisions (dealing with retiree suggestions and the DoD contractor 40-hour workweek), have been changed by legislation. The GAO observed that the DoD is continuing to push for legislative changes, primarily in the areas of (1) revisions to the Service Contract Act and (2) increasing statutory thresholds to \$25,000 for several laws, such as the Service Contract Act and the Davis-Bacon Act. (pp. 41-42/GAO Draft Report)

DoD Position: Concur.

FINDING L: Initiative 14 - Reduce The Number Of DoD Directives And Eliminate Non-Cost Effective Contract Requirements. According to the GAO, the purpose of Initiative 14 is to reduce the number of DoD acquisition directives, the amount of contract documentation and contract requirements, which are not cost effective. The GAO found that, whereas an ad hoc group had identified 31 of 136 acquisition related directives and instructions for cancellation, as of March 31, 1985, only 17 had been cancelled. The GAO reported it was advised by an OSD official that further efforts to reduce directives would not significantly reduce costs. The GAO found that, as a result, in 1983 the OSD redirected this initiative towards "streamlining" (i.e., reduction of unnecessary contract requirements), which has a greater potential to reduce costs. The GAO did not attempt to evaluate streamlining (still in early implementation), but noted that in April 1985, the Deputy Secretary of Defense had reported preliminary results were encouraging. The GAO reported that responses to its questionnaire also indicated that streamlining can be beneficial. (pp. 43-44/GAO Draft Report)

DoD Position: Concur.

FINDING M: Initiative 15 - Funding Flexibility. The GAO reported that while the Services consider this initiative complete, the GAO considers it only partially implemented because the objective was not fully achieved. The GAO found that, while the Congress increased reprogramming thresholds for procurement to \$10 million and for research and development (R&D) to \$4 million (versus the \$25 million and \$10 million which the DoD had sought), it denied the DoD request for specific statutory authority to transfer funds independently from procurement for a weapon system to research and development for that system. The GAO also noted that program managers, responding to the GAO questionnaire, reported 80 percent success in obtaining the full amount of below-threshold reprogramming requested in

FY 1983, but only 62 percent success in FY 1985. The GAO concluded that although the OSD recognizes the objective was not fully achieved, it has discontinued action on this initiative. (pp. 45-46/GAO Draft Report)

Now on pp. 37-38.

DoD Position: Partially concur. The objective of the funding flexibility initiative required congressional approval. The Congress approved a compromise position and action should, therefore, be considered complete.

FINDING N: Initiatives 17, 24, and 28 - Acquisition Decisionmaking Process. According to the GAO, the objective of these initiatives is to decentralize acquisition decisionmaking, and thereby reduce the administrative time and cost associated with major decision points in the acquisition process for major weapon systems. As noted in above, the GAO agreed with the DoD that these initiatives have been fully implemented. The GAO nonetheless noted that the Blue Ribbon Commission found the acquisition system had become more bureaucratic, more encumbered, and more unproductive--even worse, in the Commission's opinion, was dilution of authority and accountability. The GAO noted that the Commission also recommended establishing short, unambiguous lines of authority by (1) creating an Under Secretary of Defense (Acquisition), (2) establishing Service Acquisition Executives, and (3) appointing Program Executive Officers within each Service. In addition, the Blue Ribbon Commission recommended establishing a Joint Requirements Management Board, chaired by the Under Secretary of Defense (Acquisition), to replace the DSARC. The GAO observed that its findings paralleled those of the Commission in several respects. According to the GAO, over one half of program managers responding to its questionnaire indicated that the authority they have is only marginally adequate--to very inadequate. The GAO further noted that about 57 percent of the program managers believed the acquisition improvement program has made little or no difference in the acquisition process. The GAO concluded that it is extremely difficult to determine the level of control the Secretary of Defense should retain, but that the Commission's proposals should help by delineating more clearly program manager's responsibilities. (pp. 47-50/GAO Draft Report)

Now on pp. 39-41.

DoD Position: Concur.

FINDING O: Initiative 19 - Forecasting Business Base Conditions At Major Defense Plants. The GAO found that this initiative has not been fully implemented. According to the GAO, the purpose of Initiative 19 is to develop and maintain a data base covering business base conditions at major defense plants for use in planning acquisition strategy and developing realistic cost estimates. The GAO reported that the OSD Cost Analysis Improvement Group (CAIG) maintains the DoD central files for business forecasts at selected major defense plants. While most information is currently maintained manually, the GAO noted that conversion to an automated system is underway and is expected to be completed by 1987. According to the GAO, of the 31 program managers who reported that this initiative had affected their programs, 23 said knowledge of the contractor's business base had assisted them to at least some extent in planning their programs. (p. 2, p. 51/GAO Draft Report)

Now on pp. 2, 42.

DoD Position: Concur.

FINDING P: Initiative 20 - Improve The Source Selection Process.

According to the GAO, the purpose of Initiative 20 is to improve the source selection process by placing added emphasis on the contractor's past performance, schedule realism, facilities planning and cost credibility. The GAO found that neither of two actions--(1) establishing a DoD-wide system to share information on contractor performance and (2) modifying DoD policy to take account of this performance in source selection--required by the Deputy Secretary of Defense had been accomplished. The GAO found that the consensus in DoD was that such a system was unnecessary, as data on performance is available through contracting officers and program managers. The GAO also found that DoD Directive 4105.62 is being revised to address the thrust of this initiative. The GAO reported that 37 of the 42 program managers, who reported dealing with previous DoD contractors, advised past performance is formally evaluated in the selection process, and most said this helps in the selection of a contractor. (pp. 52-53/GAO Draft Report)

Now on p. 43.

DoD Position: Partially concur. The GAO statement that the DoD has not modified its source selection process is inaccurate. DoDD 4105.62 was reissued on September 9, 1985, to do just that.

FINDING Q: Initiative 21 - Standardization Of Operational And Support Systems.

According to the GAO, the purpose of Initiative 21 to develop and use standard operational and support systems to achieve earlier deployment and better support of weapon systems. The GAO noted that, in September 1984, the Joint Logistics Commanders (JLC) reported staff actions taken under this initiative were complete. The GAO found, however, that a January 1984 report by R. B. Toth Associates, commissioned by the Under Secretary of Defense for Research and Engineering (USDRE), indicated the DoD had not fully implemented or achieved the objective of this initiative, due to the DoD decentralization efforts and of the parochial attitudes of the Services. The GAO noted it had found similar problems in past evaluations of the Services' standardization efforts. While the recognized savings potential from standardization is significant, the GAO concluded that actually realizing any savings has been extremely difficult. The GAO cited as an example an earlier report (OSD Case 6480) which found that, although the most feasible core avionics systems were selected by a joint committee for standardization (with potential savings of \$770 million), standardization was not occurring as rapidly as it could. Although the DoD considers this initiative complete, the GAO concluded that the problems are long standing and defy ready solution. The GAO observed that continued high level management attention is a prerequisite to meaningful progress. (pp. 54-56/GAO Draft Report)

Now on pp. 44-48.

DoD Position: Concur.

FINDING R: Initiative 22 - Provide More Appropriate Design To Cost Goals.

According to the GAO, the purpose of Initiative 22 is to better control weapon systems costs by providing contractual incentives to industry that more closely associate design-to-cost (DTC) goals with actual costs incurred. The GAO reported (1) that a DoD Directive

incorporating USDRE guidance on design to cost (DTC) was issued in April 1983 and (2) that in 1984, the Services implemented this Directive. The GAO disagreed, however, with the DoD position that this initiative has been fully implemented because it found DTC incentives are not being widely used and OSD is not monitoring the extent of their use. The GAO noted 84 percent of program managers reported that basing DTC incentives on actual production costs (versus the "paper" analyses used previously) would provide savings. Only 18 percent reported using these incentives in their contracts, however. The GAO concluded that the thrust of Initiative 22 is commendable and deserves full and active support within DoD. The GAO further concluded that DoD needs to continue to provide top level management attention to fully implement this initiative. (pp. 57-58/GAO Draft Report)

Now on pp. 47-48.

DoD Position: Concur. A DoD ad hoc group has been working to develop a guide and a military standard to encourage greater use of design to cost contract clauses. Both are expected to be available within a year. The Army is already monitoring the use of DTC clauses at the AMC level and the Air Force is instituting a review effort at the air staff level. In view of the thrust to delegate program management responsibility to the individual services, there are no plans to monitor DTC implementation at the OSD level. DTC goals and contractual arrangements are, however, reviewed as appropriate, during OSD program and milestone review procedures.

FINDING S: Initiative 32 - Increase Competition. According to the GAO, the purpose of this initiative is to increase the use of competition in the acquisition process to reduce costs, improve contractor performance and enhance the industrial base. The GAO reported that, in 1983, a high level DoD management group established five objectives to increase competition. The GAO found that DoD actions to implement three of these objective are continuing under that group, while the DoD considers actions on two to be complete (i.e., (1) improving early planning and market research and (2) identifying and dealing with inhibitors to competition). The GAO reported that increasing management attention to competition (the first objective) was carried out through March 1984 direction from the Deputy Secretary of Defense to the Services to identify major programs that would benefit from additional competition during production. The GAO observed that one method being used is dual sourcing. The GAO found, however, that because the Military Services have been so slow in responding to OSD requests for dual sourcing candidates, the OSD required the Services to identify dual sourcing candidates in the FY 1986 budget process, but with disappointing results. The GAO reported that at the time of its review, the DoD was attempting to get dual sourcing candidates and funding information for the FY 1987 budget review. The GAO noted that, in a previous report (OSD Case 6369), it had concluded dual sourcing can reduce costs, but must be used on a case-by-case basis.

The GAO reported that, in March 1984, the Deputy Secretary of Defense had directed the Services to encourage more effective subcontract competition (the second objective), but had refrained from requiring general reporting due to concern the burden this would put on contractors. The GAO noted that the Air Force has since proposed a DoD policy, which is currently being reviewed, requiring a form of subcontract competition reporting.

In clarifying DoD policies on contractor proprietary rights (the third objective), the GAO reported that (1) the Deputy Secretary of Defense had, in March 1984, advised the Services to reduce the technical data encumbered by proprietary restrictions, and the (2) that Congress has passed the Defense Procurement Reform Act of 1984, which improved DoD access to such data.

The GAO observed that the Blue Ribbon Commission called for increased use of competition, using the competitive procurement techniques of industry as a model. While acknowledging the major effort DoD has made, the GAO agreed with the Commission and concluded that much more can be done to increase competition despite the known obstacles. (pp. 65-69/GAO Draft Report)

Now on pp. 54-57.

DoD Position: Concur.

FINDING T: Initiative 33 - Defense Industrial Base. The GAO found that, in June 1984, the Deputy Secretary of Defense directed that a new industrial base initiative be instituted, to receive high priority. According to the GAO, the purpose of this initiative is to enhance industrial base responsiveness to DoD needs. The GAO found that this initiative has been only partially implemented. The GAO reported that the Chairman of the working group responsible for implementation had stated the working group has undertaken activities to (1) integrate industrial base considerations into milestone review, (2) encourage consideration of the industrial process, and (3) assess contractors' surge capabilities. The GAO noted that the IMIP (see Finding F) and the Manufacturing Technology Program also contribute to this initiative, and that program managers reported the latter had enhanced the industrial base, at least to some extent. The GAO noted that one overall measure for gauging improvement in the defense industrial base is the level of industry capital investment in equipment, building and land for production of defense items. According to the GAO, in June 1985, the DoD, reported expenditures for these major items had increased substantially over the nine years through 1983, and that this increase had been greater in the defense than in the non-defense sectors. The GAO observed, however, that its preliminary findings indicated the increase in the non-defense segment may be proportionately greater. The GAO reported that for FY 1984 the DoD requested for \$100 million to address specific surge production deficiencies, but it was not funded by the Congress, due to budgetary constraints. The GAO reported that in FY 1985, however, the Congress did appropriate \$16.2 million (of \$25 million requested by the Army for contract surge for the TOW 2 missile. The GAO observed that it had earlier devised a method for assessing the defense industrial base, which showed (1) shortages in equipment and materials, (2) high reliance on imports, and (3) limited production capabilities due to proprietary processes. The GAO concluded that the DoD needed to give greater attention to some measures to address problems in the industrial base. (p. 2, pp. 70-73/GAO Draft Report)

Now on pp. 2, 58-60.

DoD Position: Concur.

Letter From the Honorable William V. Roth, Jr. Chairman, Senate Committee on Governmental Affairs

WILLIAM V. ROTH, JR., DEL., CHAIRMAN		
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United States Senate

COMMITTEE ON
GOVERNMENTAL AFFAIRS
WASHINGTON, D. C. 20510

September 13, 1984

The Honorable Charles Bowsher
Comptroller General of the United States
U. S. General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

Dear Chuck:

As you know, my Committee has been conducting a series of hearings over the last several years to review the effectiveness and efficiency of the Defense Department's acquisition process. We have reviewed a wide range of specific problem areas, including such things as ineffective operational testing of weapon systems and overpricing of spare parts, as well as examining the Department's management reform efforts.

One of the matters which has been of great interest to the Committee is the development and implementation of the Defense Acquisition Improvement Program (DAIP), informally known as the "Carlucci Initiatives." These 32 initiatives have been the subject of two general oversight hearings and many of the specific problem areas in the acquisition process reviewed by the Committee have also included some examination of one or more of the initiatives.

It has been more than three years since the DAIP was first developed and implementation began and it is appropriate now to begin to assess what effects this reform effort has had on the acquisition process. In addition, GAO has been reviewing many of the issues covered by the DAIP over the last few years and has developed a great deal of useful information on the many problem areas plaguing the defense acquisition process. In light of these facts, I am requesting that the General Accounting Office begin a review of the Defense Department's Acquisition Improvement Program to determine how effective these reforms have been in reaching their stated goals of shortening the acquisition process, increasing readiness, providing cost savings and strengthening the industrial base.

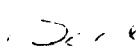
In conducting this review, I would expect the GAO to provide an assessment of the effectiveness of the DoD's reform efforts with special emphasis on problem areas in the acquisition process it has identified through its own reviews. For example,

The Honorable Charles Bowsher
Page 2
September 13, 1984

the GAO has completed several reports and analyses of the Defense Department's budgeting, cost estimating and cost reporting process and based on this work should be able to provide its opinions and views on the Department's progress in these areas.

Before beginning work on this request, I would ask that your auditors contact Mr. Link Hoewing of my staff at 224-4751 to discuss any problems or questions that may need to be resolved. I appreciate your attention to this request and look forward to the completion of the report.

Sincerely,


William V. Roth, Jr.
Chairman

WVR/kkp

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