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**THE ROLE OF THE OFFICE OF THE SECRETARY OF DEFENSE  
IN THE DEFENSE ACQUISITION PROCESS**

**Volume II  
Appendix A: IDA Questionnaire**

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## **PREFACE**

**This study was requested by the Office of the Under Secretary of Defense for Acquisition to support the Defense Science Board (DSB) Task Force on Acquisition Streamlining. The study describes the processes within the Office of the Secretary of Defense (OSD) for overseeing major acquisition programs and budgeting, and assesses the extent to which these and other oversight activities delay acquisition programs.**

**This study was conducted under contract MDA 903-89C-0003; task order number T-A6-797, Acquisition Streamlining.**

**The authors thank the OSD officials who provided data and answered questionnaires on more than 50 programs for this study. Approximately 25 interviews were used in preparing this report. The authors thank the interviewees for their time and for sharing their experience and insight. The DSB study was a large undertaking requiring careful cooperation and coordination. The authors gratefully acknowledge the members of the tri-service team, who worked hard to establish an effective team of government and contractor personnel. Particular thanks go to Captain Bruce Pieper, USN, Colonel Joseph Bailey, USAF and Carol Gardenier of the Army Materiel Command. Valuable comments were provided throughout the project by Philip Major, Vice President for Planning and Evaluation, Institute for Defense Analyses.**

**Finally, we thank Mitchell Robinson and Terri Walsh for computational support, and Teresa Dillard who coordinated the schedules of the study team and provided excellent secretarial support.**

## **FORWARD TO VOLUME II**

The data collection to support the DSB Acquisition Streamlining Task Force relied primarily on questionnaires completed by officials within industry, program management offices, and the Office of the Secretary of Defense (OSD). The Institute for Defense Analyses conducted fact finding in OSD to describe and document the acquisition experience for 52 weapons programs. A summary of IDA's findings is contained in the main volume of this report.

This appendix contains the questionnaire submitted to the weapons specialists in the Office of the Under Secretary of Defense (Acquisition) and to analysts in the Office of Program Analysis and Evaluation. The questionnaire contains two parts. The first examines the cause and impact of schedule delays and funding changes, experienced during the current and previous phases of a program's development. Part II contains questions about the weapons acquisition process and OSD's oversight role within that process.

**DEFENSE SCIENCE BOARD  
TASK FORCE ON ACQUISITION  
STREAMLINING**

**OSD QUESTIONNAIRE**

**INSTITUTE FOR DEFENSE ANALYSES  
SEPTEMBER 1990**

## **INTRODUCTION**

At the request of the Under Secretary of Defense for Acquisition, Mr. John Betti, the Defense Science Board (DSB) has initiated a study to reduce the time and costs associated with the DoD acquisition process. The objective of this effort is to recommend a streamlined acquisition process which will have the potential for significantly reducing cost and schedule requirements -- on the order of 50% -- while still preserving required performance characteristics. The DSB has established an Acquisition Task Force to address these issues and to recommend a prototype improved system.

The study is being accomplished in three phases. The first phase will characterize the DoD acquisition process as it exists today; identify best practices in defense and comparable industries that have been shown to reduce time; and categorize impediments to implementation of recommendations from prior efforts. The second phase will examine and recommend prototypical ways by which the acquisition process can be streamlined, emphasizing priority areas identified in Phase One. Phase Three will develop and execute plans for implementing recommendations developed in Phase Two and also develop approaches to streamlining the overall process based on the findings of Phase One.

The Phase One effort is divided among three teams with the complementary objectives of defining the process "as is;" determining comparable best practices that "could be;" and identifying impediments to change by addressing "why not?" Team One will characterize the acquisition process in a consistent series of increasingly complex networks from the basic milestone phases up to 1,000 activities both in terms of function and performing organization. Time will be applied to these networks by sampling approximately 150 DoD programs to determine incremental time used in executing activities within the process. Critical path(s), incremental times, timing

variations, and total time to move through the network will be calculable and displayable, along with other process characterization data and information.

The Institute for Defense Analyses (IDA) is supporting the DSB Task Force in the first phase of this study to describe and document the acquisition process in the Office of the Secretary of Defense. Other members of Team 1 are examining the acquisition process within the Service headquarters, the program offices, and industry.

**IDA's efforts will concentrate on documenting the impact of the OSD and Congressional oversight processes on the weapons acquisition process, with particular emphasis on program schedule. To the extent possible, we have collected background information on each program and highlighted the areas of particular interest to our study. We ask each action officer to validate this information, provide missing data as appropriate, and provide us with your views on the oversight and weapons acquisition processes.**

**In addition, IDA may follow up this questionnaire with a series of questions on specific program issues raised during data collection at the Service headquarters, the program offices and contractors. We expect this follow up effort to be minimal.**

The questionnaire is divided into two parts. The first examines the OSD oversight process as it affects the program directly. It includes background data on program schedule and funding, accompanied by a series of questions on particular program activities. Part II of the questionnaire contains questions concerning the OSD oversight process broadly and the weapons acquisition process as a whole. We are interested in your views of the oversight process, how it might be improved as part of the weapons acquisition process, and any recommendations you have for streamlining the weapons acquisition process in general.

# **PART I**

## **PROGRAM OVERVIEW**

## **PART I**

Part I of the questionnaire includes four sections.

- Section 1 contains background questions about the program.

Sections 2 and 3 contain related questions concerning program time drivers, schedules and funding.

- Section 2 is concerning with the time the program has spent in each phase and the key drivers of that time. In particular, we are interested in the reasons why program schedules have slipped from the original program plan and the extent to which OSD activities have been a catalyst to or had an impact on these schedule changes.
- Section 3 provides a funding history for each program. This section focuses on why budgets have changed relative to plans and specific events that have caused these changes.
- Section 4 provides space for additional information that would be useful in understanding the impact of the oversight process on program development.

The time frame under study include only the **current** and **preceding** phases of the program. However, if you believe that events from earlier in the programs history are useful for understanding the program today, include information on those activities as well.



## **PART I. PROGRAM OVERVIEW**

<b>SECTION 1. PROGRAM BACKGROUND</b>
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**Program Name** \_\_\_\_\_

**Program ID** \_\_\_\_\_

**Your Name** \_\_\_\_\_

**Title/Responsibility** \_\_\_\_\_

**Phone** \_\_\_\_\_

## DESCRIPTION AND DEFINITIONS

The **phases** that have been defined for the purposes of this study are:

**MA/TR:** Mission Analysis/Technology Review (Pre-MS 0)

**CE/D:** Concept Exploration/Definition

**DEM/VAL:** Demonstration/Validation

**FSD:** Full-Scale Development

**PROD:** Production (Up to IOC)

### PRECEDING PHASE

The phase the program was in prior to the most recent milestone decision point.

**Start Date:** Date of milestone decision point (e.g., 2/87)

**Stop Date:** Date of most recent milestone decision (e.g., 4/89). If phase is ongoing, date of planned completion.

**Elapsed Time:** Difference between start and stop dates (e.g., 26 months)

### CURRENT PHASE

The phase of the program since the most recent milestone decision point.

**Start Date:** Date of most recent milestone decision (e.g., 4/89)

**Stop Date:** Planned date of next milestone (e.g., 6/92)

**Elapsed Time:** Difference between start and stop dates (e.g., 38 months)

### TRANSITION BETWEEN PHASES

The time between the receipt of an affirmative milestone decision and start of current phase activities, excluding preparatory activities conducted in previous phase. For example, delays caused by direction to complete milestone exit criteria prior to proceeding into current phase.

## PART I. PROGRAM OVERVIEW

### SECTION 1. PROGRAM BACKGROUND

Program Origin (Check One Only)	
Presidentially Directed	<input type="checkbox"/>
Congressionally Directed	<input type="checkbox"/>
OSD Directed	<input type="checkbox"/>
Service Requirement	<input type="checkbox"/>
Joint Service Requirement	<input type="checkbox"/>
JROC	<input type="checkbox"/>

What prompted the program (Check all that apply)	
New Threat	<input type="checkbox"/>
Cost Effectiveness	<input type="checkbox"/>
Obsolescence	<input type="checkbox"/>
New Technology	<input type="checkbox"/>
Exploit strategy/Tactical Adv.	<input type="checkbox"/>

Preceding Phase		
<input type="checkbox"/> MA/TD	<input type="checkbox"/> CE/D	<input type="checkbox"/> DEM/VAL
<input type="checkbox"/> FSD	<input type="checkbox"/> PROD	
Start Date	<input type="text"/>	
Stop Date	<input type="text"/>	
Elapsed Time	<input type="text"/>	

Current Phase		
<input type="checkbox"/> MA/TD	<input type="checkbox"/> CE/D	<input type="checkbox"/> DEM/VAL
<input type="checkbox"/> FSD	<input type="checkbox"/> PROD	
Start Date	<input type="text"/>	
Stop Date (Planned)	<input type="text"/>	
Elapsed Time (Planned)	<input type="text"/>	

Transition Between Phases	
Please Comment On Any Delay Experienced Between Phases.	
Quantify Delay (Weeks)	Discuss Cause And Impact Of Delay On Program: _____
<input type="text"/>	_____
	_____

## DESCRIPTION & DEFINITIONS

**Planned:** Refers to the approved program plan in effect at the beginning of the phase.

**Funding Shortfalls:** Delays associated with receipt or obligation of funds, Continuing Resolution Authority (CRA), or any other funding aspects of the program.

**Reporting Requirements:** Delays associated with additional reporting and review requirements

**Inadequate Documentation:** Delays relating to preparation, coordination, and approval of reporting documentation (SAR, DAES, Baseline, etc.). Includes coordination and approval of normal program documentation such as APs, TEMPps, and other program plans.

**Requirements Changes:** Delays caused by requirements instability.

**Technical Difficulty:** Delays caused by unanticipated technical or test problems.

**Lack of Program Consensus:** Delays caused by extended decision process associated with a lack of consensus.

**Personnel Shortfalls/Turnover of Key Personnel:** Delays due to understaffing of Program Office or delays associated with key personnel in program office, contractor staff or OSD changing frequently or changing at critical times..

**Contracting Delays:** Delays relating to contracting process and approvals.

**Program Reviews:** Delays associated with additional program reviews.

**External Guidance:** Delays due to external guidance or requirements beyond the initial program plan; sources include Congress, OSD, Service.

**PART I. PROGRAM OVERVIEW**

**SECTION 2. PROGRAM SCHEDULE**

1. Was the duration of this phase or of the previous phase delayed from the duration planned at the start of each of those phases?  
 (Y/N) Current phase \_\_\_\_\_ Previous phase \_\_\_\_\_
2. If so, how long was the total delay (weeks)? Current phase \_\_\_\_\_ Previous phase \_\_\_\_\_
3. Which of the following time drivers contributed to the delay, and to what degree (weeks)?  
 If more than one driver applies, rank by significance of contribution to the overall delay with "1" being the most significant driver. Two or more time drivers may be ranked the same.

**DEGREE OF IMPACT**

TIME DRIVER	<u>Preceding Phase</u>		<u>Current Phase</u>		Comment
	(weeks)	(rank)	(weeks)	(rank)	
Funding Shortfalls/Budget Cuts	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Reporting Requirements	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Inadequate Documentation	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Requirements Changes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Technical Difficulty	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Lack of Program Consensus	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Personnel Shortfalls/Turnover of Key Personnel	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Contracting Delays	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Program Reviews	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
External Guidance (Indicate Source)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____
Other (Explain)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	_____

**PART I. PROGRAM OVERVIEW**

**SECTION 3. PROGRAM SCHEDULE**

Table 1. Program Schedule History [Example]

Events	<u>Dec 82</u>	<u>Dec 83</u>	<u>Dec 84</u>	<u>Dec 85</u>	<u>Dec 86</u>	<u>Dec 87</u>	<u>Dec 88</u>	<u>Dec 89</u>
MS IIIA	2 FY 84	2 FY 84	3 FY 85	2 FY 87	Apr 87	Jun 87	Jun 87	Jun 87
MS IIIB	1 FY 85	1 FY 85	4 FY 88	2 FY 89	Mar 89	Mar 89	Sep 89	May 90

**This is an example. Actual tables  
 will be provided in an attachment.**

## PART I. PROGRAM OVERVIEW

### SECTION 2. PROGRAM SCHEDULE

The above table shows the milestone schedule, as presented in the Summary of Major Defense Acquisition Programs or the Selected Acquisition Report (SAR) from Dec 82 to Dec 89. If the milestone schedule was adjusted during the current or previous phase, these changes are identified by boxes. Enter the dates in the chart below and on the following page, as appropriate by phase, and provide the following information for each delay. Please add any omitted delays and scheduling changes that have occurred since December 1989 (add additional pages as necessary). [We are interested in any delays in actual scheduling of milestone DABs, from major technical problems, to administrative delays, to program restructuring.]

**PRECEDING PHASE** \_\_\_\_\_

<u>Date</u>	<u>Who initiated the delay? Select from below*</u>	<u>Key Program Issue that Caused Delay</u>	<u>If program issue was identified by OSD (eg. test review, CAIG review, DAB), identify activity and date occurred.</u>
Original Date: _____	_____	_____	Activity: _____ Date: _____
Revised Date: _____	_____	_____	Activity: _____ Date: _____
Revised Date: _____	_____	_____	Activity: _____ Date: _____
Revised Date: _____	_____	_____	Activity: _____ Date: _____
Revised Date: _____	_____	_____	Activity: _____ Date: _____
Revised Date: _____	_____	_____	Activity: _____ Date: _____

\* Congress, OSD, Services, PEO/PM, Contractor and Other

## PART I. PROGRAM OVERVIEW

### SECTION 2. PROGRAM SCHEDULE

CURRENT PHASE \_\_\_\_\_

	<u>Date</u>	Who initiated the delay? <u>Select from below*</u>	Key Program Issue <u>that Caused Delay</u>	If program issue was identified by OSD (eg. test review, CAIG review, DAB), identify activity and date occurred.
Original Date:	_____	_____	_____	Activity: _____ Date: _____
Revised Date:	_____	_____	_____	Activity: _____ Date: _____
Revised Date:	_____	_____	_____	Activity: _____ Date: _____
Revised Date:	_____	_____	_____	Activity: _____ Date: _____
Revised Date:	_____	_____	_____	Activity: _____ Date: _____
Revised Date:	_____	_____	_____	Activity: _____ Date: _____

\* Congress, OSD, Services, PEO/PM, Contractor and Other



SYSTEM \_\_\_\_\_

CLASSIFICATION \_\_\_\_\_

**Table 2. PLANNED RDT&E TOA IN \$ MILLIONS, FY 1986 - 1990 AND TOTAL**

DATE OF PLAN	FISCAL YEAR					TOTAL
	1986	1987	1988	1989	1990	
Jan 1985						
Jan 1986						
Jan 1987		ACTUAL TABLES PROVIDED IN ATTACHMENT				
Jan 1988						
Jan 1989						
Jan 1990						
ACTUAL						

**RDT&E**

A. Total 1985 projections \_\_\_\_\_

B. Total budget submission \_\_\_\_\_

C. Total actuals \_\_\_\_\_

B/A. Budget to 1985 ratio \_\_\_\_\_

C/B. Actual to budget \_\_\_\_\_

**Table 3. PLANNED PROCUREMENT QUANTITY AND TOA IN \$MILLIONS, 1986 - 1990 AND TOTAL**

DATE OF PLAN	FISCAL YEAR										TOTAL	
	1986		1987		1988		1989		1990		QTY	\$
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
Jan 85												
Jan 86												
Jan 87			ACTUAL TABLES PROVIDED IN ATTACHMENT									
Jan 88												
Jan 89												
Jan 90												
ACTUAL												

**Procurement**

A. Total 1985 projections \_\_\_\_\_

B. Total budget submission \_\_\_\_\_

C. Total actuals \_\_\_\_\_

B/A. Budget to 1985 ratio \_\_\_\_\_

C/B. Actual to budget \_\_\_\_\_

## **PART I. PROGRAM OVERVIEW**

### **SECTION 3. PROGRAM FUNDING**

A. This section describes how program budgets have compared with initial plans since 1985. The questions focus on why budgets have changed relative to plans. Block B examine budgets for the overall time period. Block C examines changes within individual years.

Explanation of the Funding Table. Tables 2 and 3 (above) provide a funding history for this program (as presented in the Summary of Major Defense Acquisition Programs or the Selected Acquisition Reports (SARs)). The first row shows the budget as projected in 1985, the second row covers the 1986 projections, and so forth. The bottom row presents actual budgets. The final column in each row shows the projection for the total program (to completion) as estimated in each year. Please verify this information and make corrections or additions as necessary.

From the numbers in the table, three totals have been calculated. First, the sum of the 1985 funding projections for the five year period from 1986 to 1990 [A] (the sum of the first row, excluding the total). Second, the sum of the funding for the five year period as presented in the President's budget each year [B] (the sum of the numbers along the diagonal, excluding the total). Third, the sum of the actual funding during the period [C] (the sum of the final row).

From these totals, two ratios have been calculated (these are provided along with the actual tables in an attachment). First, the ratio of the total budget submission funding to the total 1985 projection [B/A]. Second, the ratio of the total actual funding to the total budget submission funding [C/B]. These ratios will be used as the basis for responding to part B, which focuses on overall "drivers" for the funding changes in this program.

Highlighted columns represent years where it appears that significant changes were made in program schedules or funding. This is defined as years in which actual program budgets differ by more than 10 percent from the budget projected one year earlier. These are a guide for answering part C, which focuses on budget changes that have occurred within a given year.

**PART I. PROGRAM OVERVIEW**

**SECTION 3. PROGRAM FUNDING**

B. Overall program funding for the period (1986-1990). Refer to Tables 2 and 3 and the ratios provided.

If funding deviated more than 10 percent from either the 1985 plan or the budget submission, which of the following were the primary drivers. If more than one driver applies, estimate the contribution of each driver.

	<u>R&amp;D Funding</u> (% Contribution to Change)	<u>Procurement Funding</u> (% Contribution to Change)
Requirements change	_____	_____
Schedule change/delay	_____	_____
Technical problems/test failure	_____	_____
Lack of consensus on program	_____	_____
Part of overall budget cuts	_____	_____
Other (Specify)	_____	_____

**PART I. PROGRAM OVERVIEW**

**SECTION 3. PROGRAM FUNDING**

C. Significant Events. Highlighted are years where it appears that significant changes in budgets and plans were made. Can you describe the factors leading to these changes? (add additional pages as necessary):

Program Phase*	Year Funding Plan Changed	Impact on Program (i.e., schedule, quantity, capability)	Who Initiated Funding Change? (Select all that apply)**	Reasons for Funding Change (Select all that apply)***
* MATD CE/D DEM/VAL FSD PROD			** Congress OSD Services PEO/PM Other	***Requirements change Schedule change/delay Technical problems/test failure Lack of consensus on program Part of overall budget cuts Other (Specify)

**PART I. PROGRAM OVERVIEW**

**SECTION 4. ADDITIONAL INFORMATION**

C. If other OSD (e.g. PPB reviews, non-milestone program reviews) or external reviews (e.g. Service, GAO, Congressional) had a major impact on the program during the current or previous phase, please identify those activities and their impact, if not covered in the previous questions (add additional pages as necessary.)

	<u>1.</u>	<u>2.</u>
1. Program Phase	_____	_____
2. Activity and Date it occurred	_____	_____
	Date: _____	Date: _____
3. Who initiated the activity	_____	_____
4. Impact on program (i.e., schedule, quantity, performance, etc.)	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
4. If impact was schedule delay, how long (weeks)	_____	_____

# **PART II**

## **OVERSIGHT AND WEAPONS ACQUISITION PROCESSES**

## **PART II**

Part II of the questionnaire includes two sections.

- Section 1 asks a set of questions concerning oversight in the weapons acquisition process, both within OSD and outside of OSD. In particular, we are interested in your views of the current oversight process -- the key players, how well it works, how much is needed -- as well as how the process can be improved.

- Section 2 asks a set of questions concerning the weapons acquisition process in general. This section presents an opportunity for you to share your views on why the process takes as long as it does and your ideas on how the process might be improved.

## **Part II. OVERSIGHT AND WEAPONS ACQUISITION PROCESSES**

<b>SECTION 1. THE OVERSIGHT PROCESS</b>
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1. What impact, in general, does the OSD oversight process and its requirements (DAB review process, PPBS process, etc.) have on program acquisition (schedule, cost, performance, etc.)?

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2. What impact has the OSD oversight process had on this program in particular?

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## **Part II. OVERSIGHT AND WEAPONS ACQUISITION PROCESSES**

**3. What recommendations would you suggest to improve the effectiveness of OSD oversight. For example, what parts of the oversight process could be eliminated without adversely affecting program quality, cost and performance. Should the oversight process be restructured, if so how? Should the process emphasize particular phases of the program life cycle more than others, if so which ones and why.**

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## **Part II. OVERSIGHT AND WEAPONS ACQUISITION PROCESSES**

4. OSD is only part of the oversight process. From your perspective, what degree of impact (and value added) do other layers of the oversight process -- Congress, Service headquarters, Buying Commands, etc. -- have on the acquisition process in general. What has the impact been on this program? What comments or recommendations for improvement/change would you suggest.

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## Part II. OVERSIGHT AND WEAPONS ACQUISITION PROCESSES

<b>SECTION 2. THE WEAPONS ACQUISITION PROCESS</b>
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1. In your opinion, what are the primary reasons for the length of the **overall weapons acquisition process**? Is the length of time justified? What recommendations would you make to improve the overall acquisition process?

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## **Part II. OVERSIGHT AND WEAPONS ACQUISITION PROCESSES**

2. What recommendations would you offer to significantly reduce the time it has taken (or is planned to take) to complete **this program** (and other programs in general)?

Overall program:

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Specific Phases:

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