



INSTITUTE FOR DEFENSE ANALYSES

Implications of DOD Funds Execution Policy for Acquisition Program Management

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Executive Summary

This research responds to concerns within the Department of Defense (DOD) about the effects on acquisition program management of policies and practices related to the execution of funds in investment accounts. The rates of execution within these accounts have been in decline for several years. In the fiscal year (FY) 2012 program/budget review, over 900 investment budget line items (66 percent) executed at rates lower than desired rates based on past performance.

Background, Objective, and Approach

One of the goals of sound financial management practice is that the DOD spends the money that Congress appropriates for national defense in a timely manner. To encourage that outcome, the Office of the Secretary of Defense (OSD) has established historically-based *benchmarks* for the percentage of available funds that should be executed by the end of the fiscal year of the appropriation. On the other hand, achieving the best results for DOD may require execution of funds for any particular program to take place later than planned. That situation creates a natural conflict between two legitimate management goals related to program execution. The focus of this research is to facilitate managing that conflict.

As part of the Department's annual program and budget development process, the Military Departments and OSD review prior-year execution performance against the established benchmarks. Since 18–24 months can pass between the time program managers submit their funding requests for a fiscal year and when funds become available, program managers are often faced with fact-of-life changes in plans that disrupt the execution of available funds.

Some have argued that a failure to execute funds in the first year of availability is not in itself a problem, as long as the funds are obligated before they expire. However, funds unexecutable in the first year could have been allocated to other needs, providing better alignment between funding requests and program needs. Furthermore, if DOD does not limit unexecuted balances, Congress might reduce funding requested in the current year's budget or even rescind previously appropriated funds.

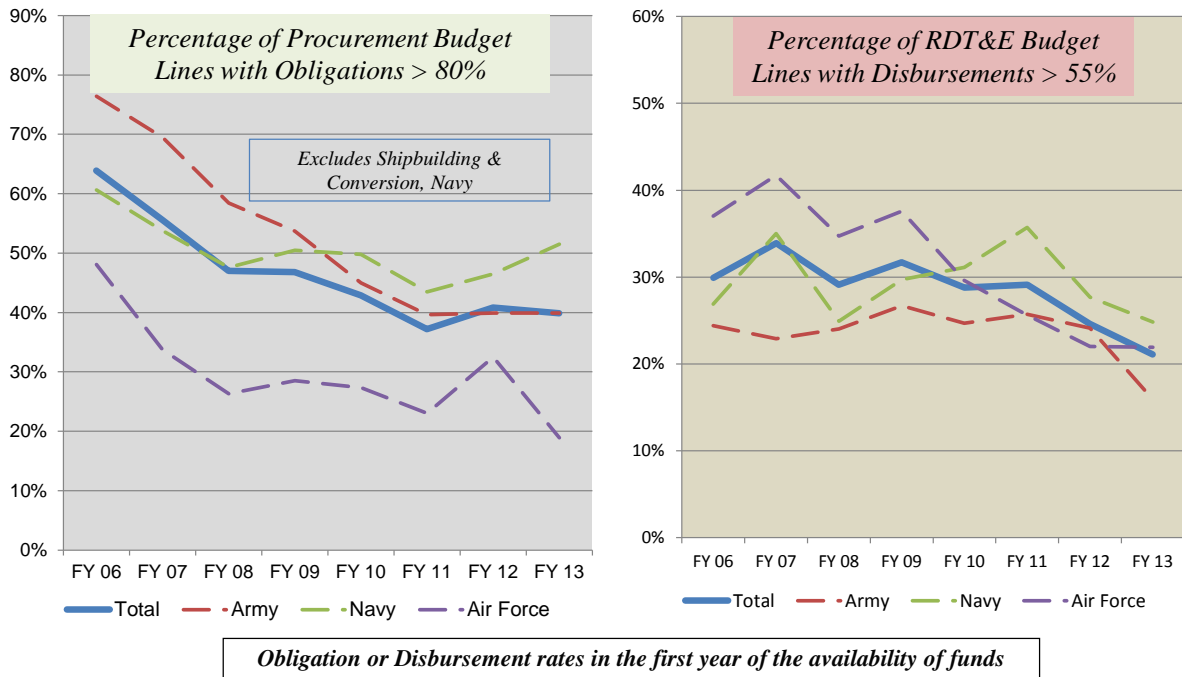
When changes in plans result in funds that cannot be executed, DOD Component financial managers may mark some funds for reprogramming, or adjust the next budget and program objective memorandum (POM) request to re-phase the program's funding to accommodate the underlying issues that caused the under-execution. However, those financial practices are alleged to have adverse effects on program delivery schedules. In addition, there is concern that the

prospect of reductions in available funding can create an incentive for acquisition programs to execute contracts prematurely, rather than pressing contractors to get the best deal.

The goal of this analysis is to increase the current understanding of the extent and causes of under-execution and suggest changes to improve outcomes. The approach was two-fold: (1) examine trends in the ability of DOD to execute appropriated funds, and (2) conduct an in-depth investigation into selected cases of funds under-execution and the effects on those programs of associated financial management practices.

Extent of Under-Execution

The following figure indicates a substantial downward trend in the percentage of acquisition budget lines meeting the historically-based benchmarks of 80 percent of funds obligated for procurement and 55 percent of funds disbursed for research, development, test, and evaluation (RDT&E).



Percentage of Budget Line Items Meeting Execution Metrics for Procurement and RDT&E

The decline in DOD-wide overall execution rates, that is, the total executed funds divided by the total available appropriated funds, is shown in the following table.

Overall DOD Execution Rates for 2006 and 2013		
	2006	2013
Procurement Obligations	78%	72%
RDT&E Disbursements	57%	47%

Although there was considerable variation among the Military Departments and by appropriation, the downward trend was observed in both large and small programs and in all Military Departments and appropriations.¹ The pervasiveness of the phenomena is indicative of systemic causes, and indicates a declining ability to execute programs according to the plans.

This analysis will highlight some of the causes that can be addressed, and others that are beyond the Department's control. In any case, there is the issue of how under-execution should be managed. Are the established benchmarks appropriate? Is the use of execution benchmarks a sound approach?

Factors Related to Program Execution

The Institute for Defense Analyses (IDA) research team selected a sample of acquisition programs for in-depth investigation, considering Military Department, program size, and type. Based on its interviews with program office, contracting, and program executive office personnel, the research team identified several major factors related to execution:

- Contracting issues, including personnel shortages and inexperience, award protests, peer reviews of contracting process documentation, and negotiation delays
- Congressional actions, including additions and reductions to requested funding, continuing resolutions, and sequestration of appropriated funds
- Management actions, including changes to requirements, contract type, schedule, responses to operational needs, technical and testing problems, and slow billing
- Policy choices, such as use of execution benchmarks to adjust future funding, and withholding funding at the Military Department level while operating under a continuing resolution
- Program office personnel shortages and experience levels

¹ The research team also obtained partial data for 2004 and 2005; however, difficulties that could not be readily resolved prevented use of those years' data. No data prior to 2004 were available. Thus, the research can neither validate the historical basis for these financial management benchmarks nor determine whether the trends in the observed period are representative of the longer-term historical record.

Effects of Financial Management Practices

Financial management practices regarding under-execution divide into two areas: (1) those related to achieving the benchmarks, and (2) those that affect programs and budget lines when execution of funds is deemed too slow.

At all levels, the research team encountered broad awareness of—and strenuous effort to meet—the established benchmarks. However, program office personnel stated that in some cases this emphasis resulted in an undue focus on obligating or expending funds, with an attendant reduction in attention to other important goals. When program managers determine that appropriated funds cannot be executed as planned, they have limited ability to reallocate funds among activities within their purview. Broader reallocation requires a reprogramming action. If the amounts to be reprogrammed are outside modest limits established in law, congressional approval is required. Delays in obtaining that approval can be lengthy, thus disrupting program execution. The reprogramming thresholds have been in place since 2003 without adjustment for inflation.

Conclusions

Trends in Obligation and Expenditure Rates

There has been a consistent downward trend in funds execution rates for procurement obligations since 2006 and RDT&E disbursements since 2009.

DOD Management Systems

The current acquisition, financial management, and contracting systems are designed to be flexible. However, program officials report that implementation can be rigid, reflecting overly risk-averse management in the acquisition process.

In some cases, the acquisition community appeared to be in a reactive posture regarding under-execution of funds. The research team found evidence that sometimes acquisition managers were not aggressive in addressing under-execution issues and taking remedial actions, thus leaving to financial managers the funding adjustments needed to align acquisition program budgets with plans. When this occurs, the re-phased funding profiles may not support the affected programs' previously approved schedules.

OSD Metrics

Execution metrics, if used properly, focus attention where needed; however, the process must also allow sufficient time to review information to ensure that reductions are not harmful.

According to OSD officials, the DOD benchmarks are based on thirty years of execution history. Regardless of the precise historical basis for their derivation, and while they may be

arbitrary to some extent, the research team finds them to be a reasonable means of identifying funds for possible reallocation to higher priority needs.

Policy Guidance versus Practice

DOD policy is clear but implementation can be improved:

- Reducing program funding based exclusively on under-execution can exacerbate existing problems or create additional challenges.
- Program managers lack incentives to identify unexecutable funds for reallocation.
- Management attention unduly focuses on meeting benchmarks.
- Guidance from senior leaders tends to translate into directives at lower levels.
- Ability to reallocate funds that can't be executed is limited by reprogramming authority. Higher reprogramming thresholds would reduce under-execution.

Recommendations

The research team identified several best practices that, if implemented more widely, should lead to improved outcomes. The following actions can facilitate program and budget execution:

- Using automated collaboration processes and decision support tools to track obligations and disbursements and keep spending plans current. These tools, when tied to enterprise resource planning systems, can help reconcile spending plans with execution.
- Streamlining review processes in acquisition management and contracting by eliminating unnecessary levels of review and enforcing tight deadlines for completion of reviews.
- Conducting reviews of acquisition programs by Military Department comptrollers. These reviews permit acquisition managers to provide full information on the effects of reducing funds for under-execution.
- Identifying excess funds early allows adjustment of funds via reprogramming or in POM submission, thus better aligning funding profiles with the ability to obligate funds.
- Making funds available to the program offices in a timely manner.
- Providing sufficient personnel with the appropriate expertise to program offices and contracting activities, as well as to conduct required reviews.
- Ensuring contracting support is tightly linked with program management to establish effective working relationships, minimize contracting delays, and create a common understanding of timelines, priorities, and requirements. (Co-location of the contracting and program management offices is beneficial.). Automated program management

tools, already in use in some program offices, appear to be particularly helpful in achieving unity of effort. As these tools mature, they can be shared among the Military Departments and taught in acquisition certification courses.

- Broadening the authority to reprogram funds without prior congressional approval and enabling a more responsive reprogramming process.

OSD and the Military Departments should continue to review execution data, and acquisition managers should continue to track execution against benchmarks while managing programs to achieve the best overall results for DOD. The review of investment programs during annual program/budget reviews promotes awareness of execution issues within both the OSD and Component staffs. In the ongoing review of the DOD Planning, Programming, Budgeting and Execution System (PPBES), consideration should be given to implementing an expanded budget review process that allows more time for review of programs experiencing slow execution of funds.

Adjustments in funding for individual programs should be made only after a thorough investigation of the implications. Acquisition managers, in general, have more—and more timely—information available to them than do financial managers and should serve as the primary source of information for making such adjustments.

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1. Introduction

This research responds to concerns within the Department of Defense (DOD) about the effects of policies and practices related to the execution of funds in investment accounts on acquisition program management. The rates of execution within these accounts have been in decline for several years. In fiscal year (FY) 2012, over 900 investment budget line items (66 percent) executed at lower than desired rates. Specifically, this research examines policies and practices related to managing obligations in procurement programs and expenditures in research, development, test and evaluation (RDT&E) programs in relation to established benchmarks.

Some have argued that a failure to execute funds in the first year of availability is not in itself a problem, as long as the funds are obligated before they expire.² There are two counters to that argument. The first is on principle—unexecutable funds could have been allocated to other needs. A tighter resource allocation process would produce better alignment between funding requests and program needs. The second counter argument is that if DOD does not take steps to limit unexecuted balances, Congress will reallocate funding requested in the current year’s budget and may even rescind previously appropriated funds.

A. Background

One of the goals of sound financial management practice is that DOD spends the money that Congress appropriates for national defense in a timely manner. On the other hand, acquisition program managers strive to achieve the best results for DOD, which sometimes means that executing funds in procurement and RDT&E appropriations takes place later than planned. As a result, there is a natural conflict between two legitimate management goals related to program execution. The focus of this research is on managing that conflict.

DOD aligns available resources with strategic priorities through the Planning, Programming, Budgeting and Execution (PPBE) process. Funds execution is a concern of the culminating (execution) stage of the PPBE process, in which funds appropriated for defense investment are spent.³ Toward that end, the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) has established benchmarks for evaluating investment program

² Procurement funds expire for obligation three years following appropriation (except shipbuilding), and RDT&E funds expire two years following appropriation. Once funds are obligated, they must be disbursed before the appropriation closes —five years after they expire for obligation.

³ For most investment accounts, “execution” means both obligating funds and disbursing funds previously obligated. Investment funds are normally obligated via a contract with a supplier. Once obligated, disbursements are made when goods are delivered or services are actually performed.

execution at the end of the first year of fund availability, based on thirty years of historical experience, as depicted in Table 1.

**Table 1. Funds Execution Benchmarks for Investment Accounts
(as of the end of the first year of availability)**

	Obligation Benchmark	Disbursement Benchmark
Procurement Accounts	80%	None
RDT&E Accounts	90%	55%

To achieve these benchmarks by the end of the first year of execution, acquisition and financial managers track each program's progress. Each Military Department holds a mid-year review that assesses, in varying levels of detail, the execution progress to date and the likelihood that the end-of-year benchmarks will be met. Ideally, if a program falls behind the expected execution amounts, additional review should be conducted to see if actions are needed to improve the program's chances of meeting the benchmark by the end of the fiscal year. In practice, many factors obstruct attainment of execution benchmarks.

Funding needs are determined based on program plans, which are formulated and submitted for approval roughly two years before the requested funds will become available via the congressional appropriations process. Such plans are based on numerous assumptions, many of which are subject to considerable uncertainty. When these earlier planning assumptions are realized, the execution phase can progress smoothly; however, the reality is that by the time funds actually become available, many planning assumptions are no longer valid, and consequently funds cannot be executed as originally planned. Of course, it is not at all unusual for the funds received to be significantly different than the request, and that can also complicate execution plans.

Based on Office of the Secretary of Defense (OSD) reviews conducted during the subsequent PPBE cycle, planned funding for under-executing programs may be reduced for the upcoming fiscal year and then restored in one or more subsequent years. Many concerns have been raised about the results of this re-phasing process, including the potential for delayed delivery of needed capability, uncertainty introduced in planning for program execution, and a possible mismatch between the revised funding profile and the program's needs in upcoming years. The focus of the research in this paper is the under-execution of investment accounts, which include research, development, test and engineering (RDT&E) and procurement appropriations.

B. Research Objectives

This research was conducted in response to tasking from the Office of the Director, Cost Assessment and Program Evaluation (CAPE), the Office of Director for Acquisition Resources and Analyses (ARA) in the Office of the Under Secretary of Defense for Acquisition,

Technology and Logistics (OUSD(AT&L)), and the Office of the Director of Investment, in the OUSD(C). It has two principal objectives: (1) assessing the extent of under-execution of funds allocated to RDT&E program elements (PE) and procurement budget line items over the past ten years and (2) conducting in-depth investigations of selected acquisition programs. It then attempts to identify patterns that could help managers across DOD anticipate and appropriately respond to factors that adversely affect execution of funds. Finally, based on these analyses, the Institute for Defense Analyses (IDA) team developed initial recommendations related to managing execution of increasingly scarce investment resources.

C. Methodology

This paper derives its insights and recommendations from two principal sources: first, an analysis of available historical data related to financial execution; and second, in-depth interviews with officials charged with oversight of or responsibility for execution of funds. The stages of the analysis are summarized below:

- Conducting a literature, policy, directives review: The research team conducted a review of available documentation relating to under-execution of funds in DOD acquisition programs, including recently completed studies.
- Understanding the current situation: The team collected and analyzed data to determine the extent of the problem of under-execution of funds and to define the characteristics of under-executing programs.
- Engaging with stakeholders: The team worked with the Military Departments to define a small set of programs for more in-depth analysis. Team members requested more detailed data and information, as needed, from both OSD and the Military Departments.
- Learning from the past: The team conducted interviews with current and former officials in the OSD (OUSD(C), D,CAPE, and OUSD(AT&L)), the DOD Components, Program Executive Offices, and selected program and contracting offices in the Military Departments. Team members focused on best practices and lessons learned in financial and program management related to funds execution.
- Identifying root causes: Where possible, the team attempted to determine the root causes of under-execution of funds; assessed the extent to which current financial management practices regarding under-execution of funds have had positive or adverse consequences; and established, where possible, cause-and-effect linkages between program performance and execution of funds.

The interviews were conducted on a not-for-attribution basis; therefore the views in this paper will be linked to the program they were drawn from, but not to the individuals who expressed them.

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2. Current Policy and Procedures for Execution of Funds

A. Policy and Directives

The following guidance regarding the execution of funds, provided by the USD(AT&L) and the USD(C) in a September, 2012 memorandum, reflects the concerns outlined Chapter 1:⁴

1. Taxpayer funds should be obligated and ultimately expended only in the taxpayers' interest and if best value is received for the money in support of the Warfighter.
2. While they can be useful indicators, obligation rates slower than established benchmarks should not be the determinative measuring stick for program execution and must not be regarded as a failure.
3. Late obligation of funds should not be presumed to imply that the funds are not needed or that future budgets should be reduced unless there is other evidence to support that conclusion.
4. Providing savings to the organization, Military Service, or DOD component as early in the fiscal year as possible should be encouraged and rewarded, professionally and visibly.
5. Savings will not be reallocated at any higher DOD level than necessary to fulfill shortfalls in priority requirements.
6. Managers who release unobligated funds to higher priorities will not automatically be penalized in their next year's budget with a lower allocation and may be candidates for additional funding to offset prior year reductions.

This policy guidance also encouraged acquisition and financial managers at every level to implement these tenets. At the OSD level, the USD(AT&L) and USD(C) staffs instituted a joint review of investment program execution during the fall 2012 program-budget review, comparing programs' execution performance with benchmarks and gathering other information relevant to those programs' future funding needs.

In recognition of the increasing difficulties that acquisition programs have in meeting the historical execution benchmarks in Table 1, in both the 2012 and 2013 budget reviews, lower criteria were used. In 2012 the criteria were 62 percent for procurement obligations and 47

⁴ Robert Hale and Frank Kendall, "Subject: Department of Defense Management of Unobligated Funds; Obligation Rate Tenets," memorandum (Washington, DC: DOD, 12 September, 2012).

percent for RDT&E disbursements. For 2013, the RDT&E criterion was the same as in 2012, whereas a 66 percent figure was used for procurement. The results of this review led to recommendations on re-phasing funding in the FY2014 President's Budget Request, with some 400 programs having funds re-phased. Given time constraints, which limited the depth of program analysis, there were concerns that these actions might have had unintended consequences with respect to execution, particularly for programs that might also be affected by congressional actions or sequestration. The execution review was repeated in the fall of 2013 under different ground rules. Execution-related reductions were identified at the appropriation level, leaving the determination of specific programs to be cut to the DOD Components. The components were thus given increased latitude as to the sources of execution reductions, but questions persisted regarding the impact of OSD's financial management decisions on individual programs.

B. Army Performance Assessment and Root Cause Analysis (PARCA) and Defense Acquisition University (DAU) Studies⁵

In 2012, the Assistant Secretary of the Army for Acquisition, Logistics, and Technology requested that the Army and DAU conduct a joint study of funds execution problems. Army PARCA was the Army participant. The study identified 124 under-obligating programs (presumably Army, though this was not explicitly stated) and selected 20–25 programs within five Army Program Executive Offices (PEO) for in-depth analysis, including site visits. It recommended greater standardization of processes, metrics, and development and management of a common schedule. The Army PARCA office has not released the results of the investigations at the program level, and the findings are stated in the purely qualitative terms displayed in Figure 1:

⁵ Ibid.

- Study revealed a need for standardization of processes, metrics, and development and management of a common schedule in the following areas:
 - Requirements
 - Human Capital
 - Realism of Schedule
 - Complexity of competing sub-initiatives/ efforts
 - Unrealistic OSD Financial Goals
 - Laws/Regulations/Policies
 - Contractor Performance
 - **Study conclusion:** There must be an environment of collaboration across the enterprise for success

Figure 1. Conclusions of Joint Army PARCA-DAU Study of Under-Execution of Funds

Subsequently, the DAU was further tasked by the Assistant Secretary of Defense (Acquisition) to conduct a survey to “help uncover the causal factors that could be interfering with the attainment of OSD’s Obligation and Expenditure rate benchmarks.”⁶

A summary of the “high-impact” factors identified by the DAU study is shown in Figure 2.

⁶ Robert L. Tremaine and Donna J. Kinnear-Seligman, “The Challenges in Meeting OSD’s Obligation and Expenditure Rate Goals: A Closer Look at Potential Causal Factors, Their Groupings, and How They Modulate,” *Defense Acquisition Research Journal* 20, no. 3 (October 2013): 373–400.

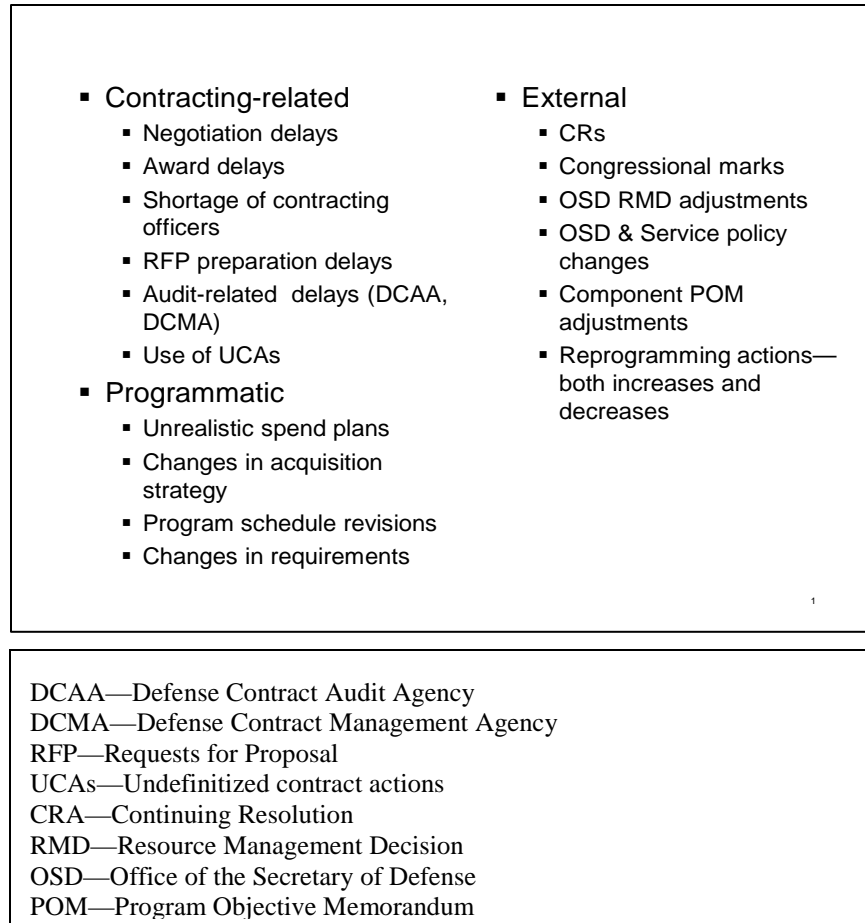


Figure 2. “High-Impact Factors” Identified in the DAU Survey

This survey served as an important starting point for the current IDA analysis. Nonetheless, the DAU survey has some key limitations implicit in the grounds under which the survey was conducted, namely that responses were both voluntary and anonymous. The first condition means that the set of responses does not comprise a statistically valid random sample, while the second condition means that it is impossible to obtain more detailed information regarding the specific occurrences that underlie the response. The survey query is dated November 15, 2012. The sample of responses was of substantial size and the spread across Military Departments was reasonably uniform. Of 698 queries, 229 responses were received (33 percent). By Military Department, the response rate was highest for the Army (41 percent) and lowest for the Navy (25 percent). There was also a good spread by status (military or civilian) and grade, as well as by program size. The survey requested ratings on sixty-four factors that were hypothesized to have significant impacts on funds execution rates. For twenty-two of those factors, a rating on frequency of occurrence was also requested. The survey instrument also solicited open-ended, free-form comments in five areas directed toward improving management and assessing funds execution. The DAU conducted an extensive analysis of the data to develop the insights regarding the underlying causes of funds under-execution reflected in Figure 1.

3. Presentation of Data Trends and Results of In-Depth Review

A. Historical Trends in Funds Execution Rates

The research team examined procurement budget lines and RDT&E program elements from FY2004 to FY2013⁷ to identify the percentage of investment line items that were executing at or above the established benchmarks.

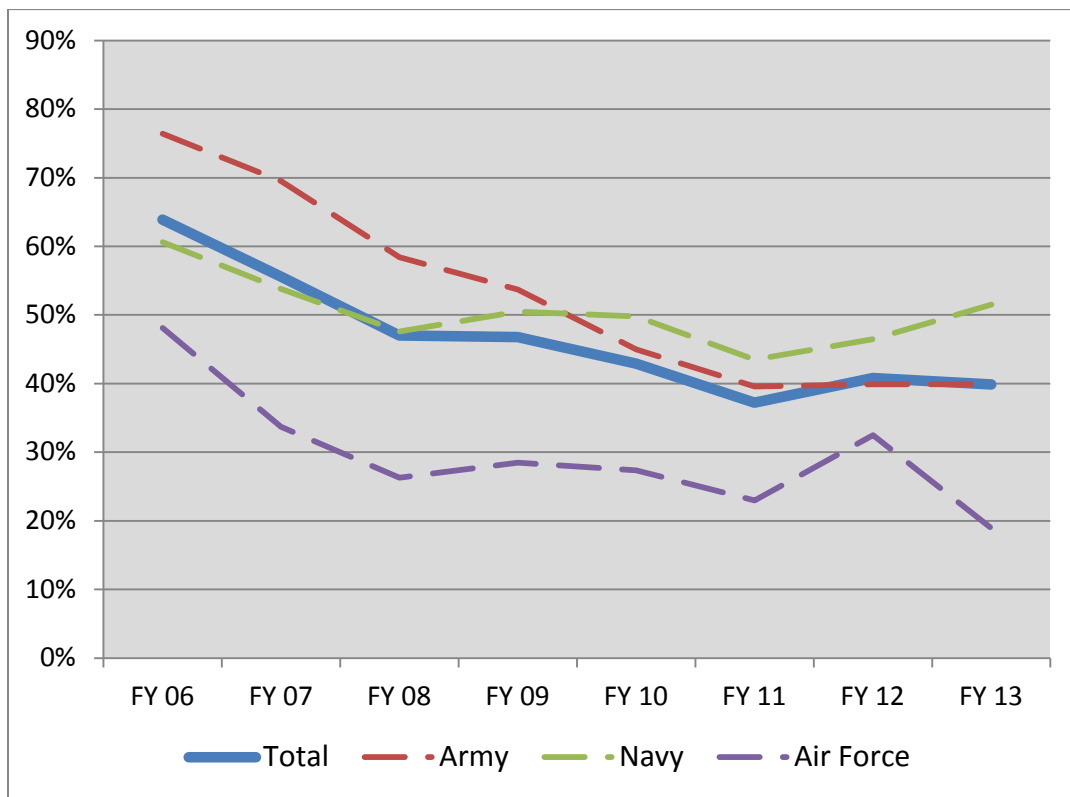


Figure 3. Percentage of Procurement Programs Meeting Execution Benchmark (Obligations >80 percent)

⁷ The research team also obtained partial data for 2004 and 2005; however, difficulties that could not be readily resolved prevented use of those years' data. No data prior to 2004 were available. Thus, the research can neither validate the historical basis for these financial management benchmarks nor determine whether the trends in the observed period are a-historical.

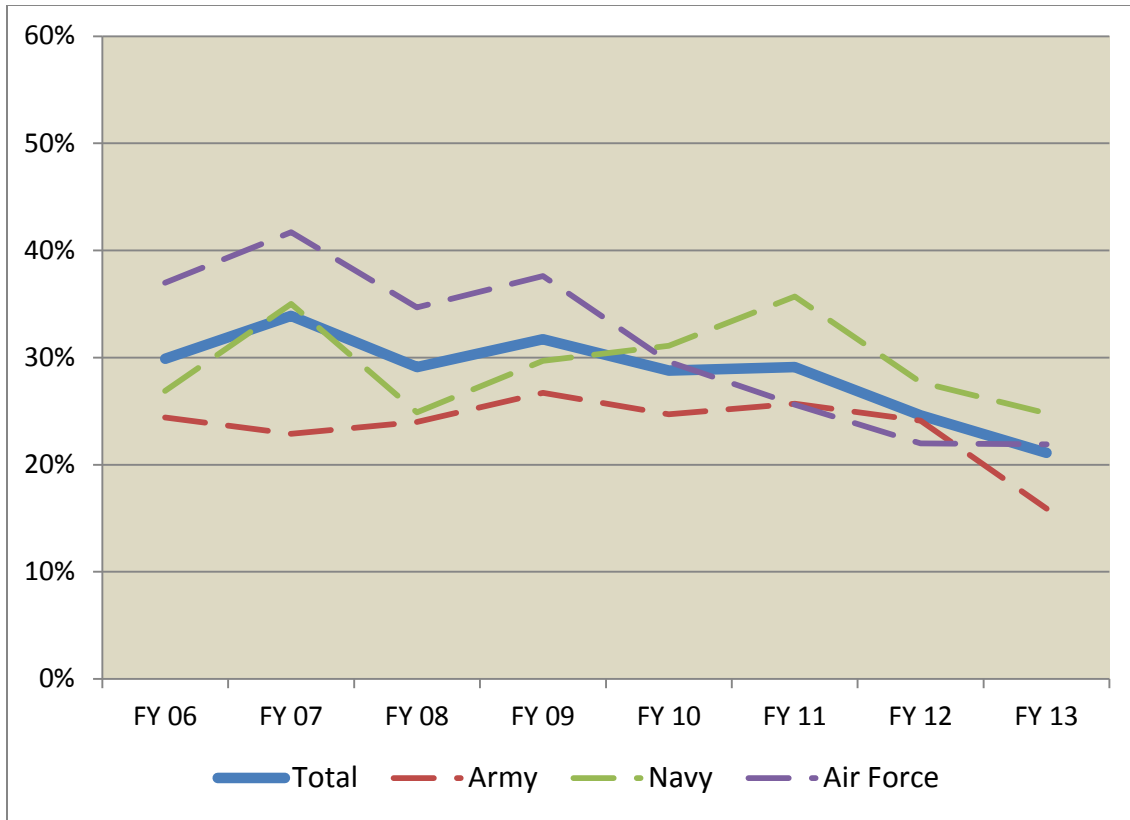


Figure 4. Percentage of RDT&E Programs Meeting Execution Benchmark (Disbursements >55 percent)

Figure 3 and Figure 4 illustrate that, in recent years, DOD-wide financial execution has been declining as measured at the budget line item level. In FY2013, only 40 percent of procurement line items met the established obligation benchmark of 80 percent of funds available within the first year of availability. The percentage of RDT&E line items meeting the established benchmark of 55 percent of available funds disbursed within the first year was 17 percent in FY2013. The research team reviewed an analysis completed by OUSD(Comptroller) that showed a corresponding decline in budgetary execution rates at the appropriation level. Appendix A presents historical execution data by appropriation for both procurement and RDT&E.

It is important to note that budget line item execution is not the same as program execution because each budget line can contain funding for more than one program, and programs frequently comprise funds from multiple budget lines and appropriations. However, information on budget line execution is significant because it has been the basis for financial managers' program execution and performance reviews, and because it is used to adjust resources, both at the budget line item level and at the appropriation level. In addition, congressional staff members use these data to identify budget lines for rescission or reallocation.

B. Analysis of Fiscal Year 2013 (FY2013) Execution Data

To gain deeper insights into procurement obligations in FY2013, the research team developed distributions of execution rates for each procurement appropriation. Figure 5 through Figure 7 contain these results by Military Department. Each graph displays the distribution of obligation rates for all the procurement lines in a specific procurement appropriation accounts.⁸ The median and means are statistics for the population of lines in each account, not the overall obligation rate for the account (i.e., the sum of obligated funds divided by the sum of available funds).

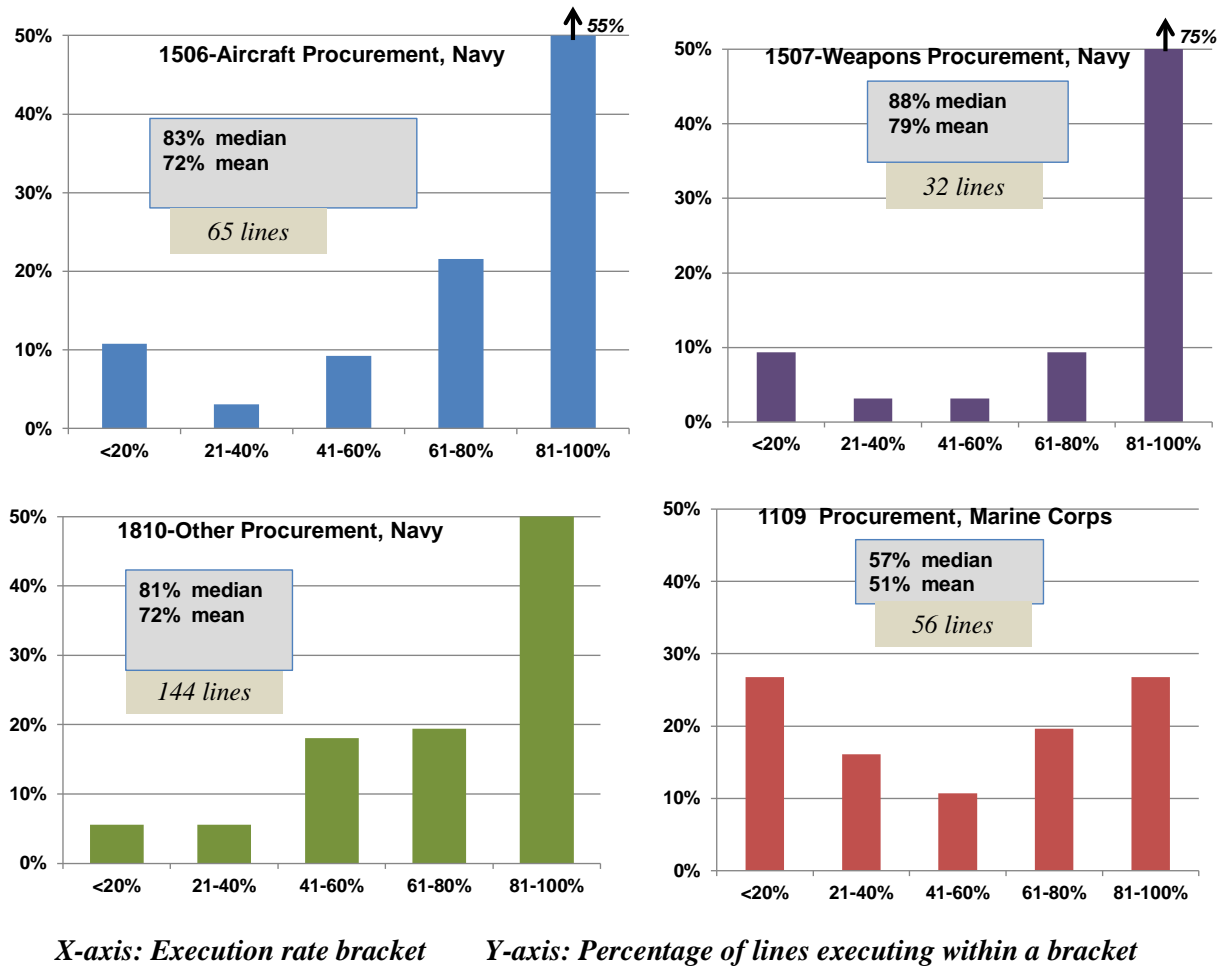
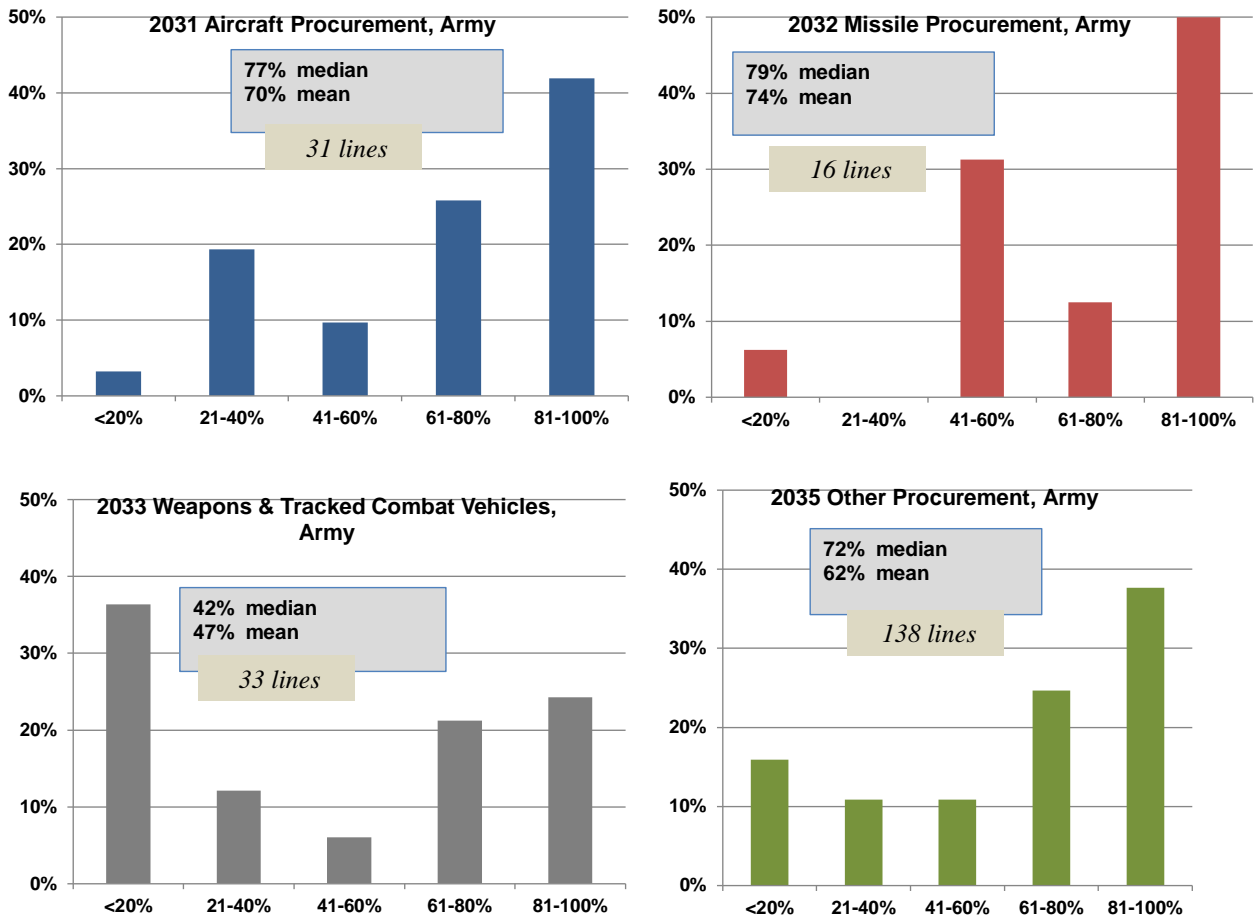


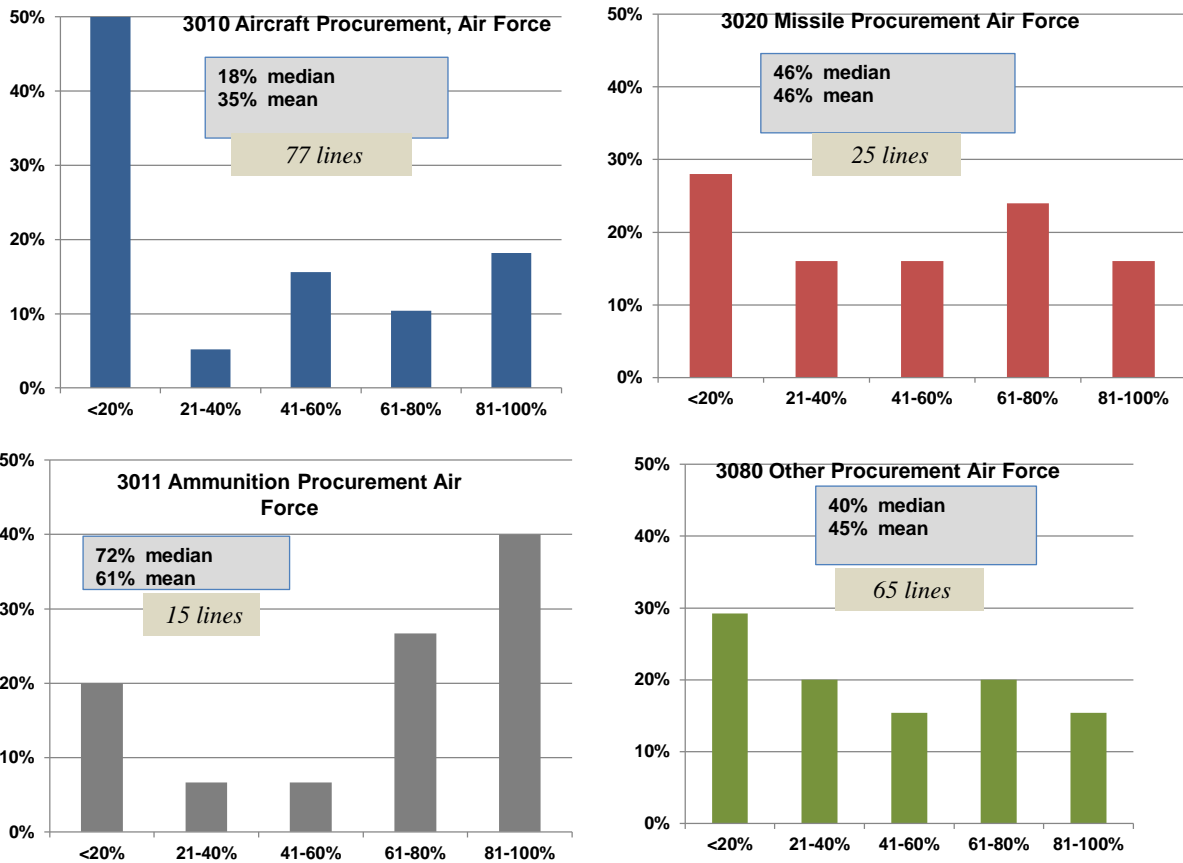
Figure 5. FY2013 Obligation Rate Distributions, Navy and Marine Corps Procurement

⁸ To save space, the ammunition procurement accounts for the Army and Navy are not included in the figures. Shipbuilding and Construction for the Navy is also not included because that account is normally excluded from OSD execution reviews. All of those accounts obligated relatively well compared to most others.



X-axis: Execution rate bracket Y-axis: Percentage of lines executing within a bracket

Figure 6. FY2013 Obligation Rate Distributions, Army Procurement



X-axis: Execution rate bracket Y-axis: Percentage of lines executing within a bracket

Note: Certain classified programs are excluded from the Air Force data.

Figure 7. FY2013 Obligation Rate Distributions, Air Force Procurement

These distributions indicate a wide range of execution outcomes. With the exception of the Procurement, Marine Corps account, the Navy experienced significantly better procurement obligations in FY2013 than the other three Services. Navy and Army aircraft procurement accounts executed relatively well, but not Air Force aircraft procurement, which has the lowest median and mean obligation rates among all procurement accounts.

The statistics seen in the figures do not reflect the overall obligation rates for the accounts, i.e., the sum of the obligated funds for the account divided by the sum of the available funds. Those values are shown in Table 2.

Table 2. Overall Procurement Obligation Rates for FY2013

Procurement Account	Overall Obligation Rate
Aircraft Procurement, Army	64%
Missile Procurement, Army	63%
Procurement of WTCV, Army	39%
Procurement of Ammunition, Army	74%
Other Procurement, Army	64%
Department of Army Total	62%
Aircraft Procurement, Nav	78%
Weapons Procurement, Navy	85%
Procurement of Ammo, Navy & MC	81%
Shipbuilding and Conversion, Navy	69%
Other Procurement, Navy	75%
Procurement, Marine Corps	48%
Department of the Navy Total	67%
Aircraft Procurement, Air Force	53%
Procurement of Ammunition, Air Force	72%
Missile Procurement, Air Force	49%
Other Procurement, Air Force	52%
Department of Air Force Total	53%

The results are qualitatively similar to the distributional data, which indicate that the Department of the Navy had the best obligation record in FY2013 and that the Air Force had the worst. Cases where the overall obligation rates are better than the mean of the line-item obligations indicate that the larger (in dollar value) programs execute better than the smaller ones, or vice-versa.

C. In-Depth Review of Programs

As noted above, available historical data are insufficient to establish a definitive link between a factor, such as contracting officer workload, and the resulting impact on obligation and expenditure rates. Although previous surveys and studies had identified a number of factors that program officials and financial managers believed to be relevant, longitudinal data that capture the presence or absence of each factor has not been collected. In the past, the numeration and titles of budget lines frequently change from year to year, frustrating efforts to track the execution performance of individual programs over time.⁹

⁹ Recent budget submissions have stressed greater consistency in budget line item numeration; however, there will always be year-to-year changes when programs are restructured, thus making year-to-year tracking of obligation rates difficult or impossible.

Even with a clear historical record of both factors affecting execution and financial performance data, it would be difficult to establish a causal linkage between a given factor and a program's execution rate. This is because a given factor can have varying impact on execution depending on the phase of the acquisition life cycle, applicable acquisition policies, the appropriation type, and the ability to reallocate funds among programs. For example, a delay in funding availability (for example, due to a continuing resolution (CR)) might have greater impact on execution for a new technology demonstration program than for a program transitioning from its engineering and manufacturing development phase into its production phase.

To conduct its in-depth analysis of the factors involved in funds under-execution in acquisition programs, the research team visited a number of program offices for detailed discussions. Notes from those visits have been distilled to one-page displays, and those displays are compiled in alphabetical order in Appendix B. Figure 8 lists the programs, their locations, and the date they were visited by the IDA research team.

Program Investigated	Abbreviation	Location	Date of Visit
AH-64 Apache Helicopter	AH-64	Huntsville, AL	2/25/14
Aircraft Energy Conservation Program	AECP	Patuxent, MD	4/14/14
Armored Multi-Purpose Vehicle	AMPV	Warren, MI	4/1/14
C-130J Hercules Transport Aircraft	C-130J	Wright-Patterson AFB OH	3/14/14
CH-47F Chinook Helicopter	CH-47	Huntsville, AL	2/27/14
Combat Vehicle Improvement Program (RDT&E for Abrams and Bradley)	CVIP	Warren, MI	4/2/14
Defense Enterprise Accounting and Management System	DEAMS	Wright-Patterson, AFB OH	3/13/14
EA-18G Growler Electronic Warfare Aircraft	EA-18G	Patuxent River NAS, MD	4/7/14
Integrated Aircrew Ensemble	IAE	Wright-Patterson AFB, OH	3/13/14
Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System	JLENS	Huntsville, AL	2/25/14
Joint Primary Aircraft Training System	JPATS	Patuxent, MD	5/14/14
Joint Tactical Radio System	JTRS	Aberdeen, MD	2/18/14
KC-46A Tanker Aircraft	KC-46A	Wright-Patterson AFB, OH	3/14/14
M1A2 Abrams Tank Mod Program	M1A1	Warren, MI	4/1/14
M2A3/M3A3 Bradley Fighting Vehicle Mod Programs	M2A3/M3A3	Warren, MI	4/1/14
Multiple Launcher Rocket System Improvement Program	MLRS	Huntsville, AL	2/28/14
MQ-4 Triton Unmanned Aircraft System	MQ-4	Patuxent, MD	3/19/14
MQ-8 Fire Scout Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle	MQ-8	Patuxent, MD	3/19/14
MQ-9 Reaper Unmanned Aircraft System	MQ-9	Wright-Patterson AFB, OH	3/12/14
Navy Multiband Terminals	NMT	San Diego CA (teleconf.)	6/10/14
Navy Standard Integrated Personnel System	NSIPS	Arlington, VA	5/20/14
Patriot and MEADS (Medium Extended Air Defense System)	PATRIOT	Huntsville, AL	2/25/14
Satellite Communications: Mobile User Objective System	MUOS	Arlington, VA	5/30/14
Warfighter Information Network-Tactical	WIN-T	Aberdeen, MD	2/27/14
Wheeled Vehicle Protection Kits	WVPK	Warren, MI	4/2/14

Figure 8. Individual Programs Visited for In-depth Investigation

The IDA research team also visited the Marine Corps Systems Command (MCSC) in Quantico, VA late in the research effort. Discussion was largely general in nature, but MCSC personnel followed up with a paper providing useful information on execution difficulties for several programs.

The visits included discussions with personnel responsible for different aspects of funds execution, including program management (leadership, business/financial management, contract preparation), the contracting activities,¹⁰ and PEO oversight. Figure 8 summarizes the extensive read-ahead that was provided.

¹⁰ Program management offices usually have a contracts office that prepares contract documentation, which is then provided to the contracting activity responsible for writing, negotiating, and awarding the contract.

- **Spend plans**
 - How are program “spend plans” developed?
 - How kept current?
 - What is the approval process?
- **Execution benchmarks**
 - What funds execution benchmarks are used?
 - If different from OSD(C)’s, why?
 - How is execution monitored against the benchmarks?
 - What is the role of the PEO and higher headquarters?
 - What action is taken when it appears that benchmarks will not be achieved?
 - Are excess funds identified for reallocation? If so, at what level? What is the process?
- **Causes of funds under execution—primary and secondary**
 - Delays in receipt of funds
 - Contracting issues
 - Congressional actions
 - Technical and testing issues
- **Reductions based on under execution**
 - Have reductions been imposed on your program because of funds under execution?
 - If so, what was the impact?
 - Were funds re-phased (i.e., restored in later years)? If so, with what effect?
- **Impact of Congressional actions**
 - Continuing Resolutions
 - Funding adds and reductions
 - Sequestration
 - Re-programming request delayed or denied
- **Contracting process**
 - Sole source contracts
 - Peer reviews
 - Negotiations
 - Pricing and availability data
 - Audit
 - Undefined contract actions (UCAs)
- **Impact of Better Buying Power and WSARA**
- **Identify best practices and tools used to manage the execution of funds**

Figure 9. Outline of Read-Ahead for Program Office Visits

In selecting programs to be visited, the research team’s intent was to cover a range of different ways that investment programs can be categorized:

- Major Defense Acquisition Programs (MDAP) and non-MDAPs
- Military Departments
- Programs executing close to benchmarks and those that are not
- Type of program: aircraft, ground systems, C3I systems, munitions

Given the level of resources available for the task and the broad range of the thousand or so DOD acquisition budget lines, it was not possible to cover all types of programs with a statistically valid sample. Figure 9 lists the number of programs investigated by category.

	MDAPs	Non-MDAPs	Low/Medium Execution Rate	High Execution Rate
Procurement only	6	2	8	0
RDT&E only	5	3	7	1
Procurement and RDT&E	8	1	5	4

Program by Type	Platform	Mod	C3	UAS	Support Equipment	Other
	9	3	4	3	2	4

Figure 10. Categories of Programs for In-Depth Investigation

The categorization by low/medium or high execution is based on an overall assessment, since most of these programs comprise subprograms that can differ in execution, and execution results were considered over a three-year period (FY2011–FY2013). It is not at all unusual for some components of the large MDAPs to execute well, while other parts execute less well (see execution tables for each program in Appendix B). Execution data, which were obtained from the Defense Financial Accounting Service (DFAS) 1002 reports, are only available at the budget line level of detail (PE for RDT&E and Budget Line Item for procurement), whereas the program actually investigated is sometimes a sub-program within the line. This is quite common for DOD budget lines. In fact, most RDT&E PEs comprise several “projects,” which might be only loosely related. Moreover, many procurement budget lines comprise several, sometimes disparate, “sub-lines,” which can be managed by different activities. An illustrative example is a Navy procurement budget line entitled “Command Support Equipment” (FY2013 funding at \$50.4 million (M)) which comprises over twelve component sub-lines, the largest of which is \$8.8M and which are largely unrelated. Working with the Navy, the research team selected one of these, the Navy Standard Integrated Personnel System, for in-depth investigation. Obviously, a true in-depth investigation of funds execution for this budget line would have required an examination of all of the component sub-lines, or at least enough to more accurately represent the funding in the line. Since the main interest was program execution, these observations are offered to convey an appreciation of the difficulties in obtaining a complete understanding of the causes of funds under-execution in DOD.

D. Insights into Factors Affecting Funds Execution Gained from In-Depth Program Investigations

At the completion of the program office visits, the research team compiled a list of factors relating to funds execution—some causes, some effects or implications (it is sometimes difficult

to distinguish causes and effects). These determinations were based on statements made by the personnel interviewed; independent verification of the information provided was beyond the scope of the research. The factors are listed in Table 3, together with the programs for which the factor was observed, based on the interviews and information provided by the program offices.

Table 3. Mapping of Factors Identified as Affecting Funds Execution and Program Offices

Factor	Programs Reporting an Impact								
Contracting Process	AMPV	WVPK	Patriot	MLRS	JLENS	C-130J	JPATS	KC-46A	CH-47
Contracting Personnel	MLRS	AH-64	Patriot	AMPV	MQ-4	MQ-8			
Contract Negotiations	C-130J	JPATS							
Contractor-related—Protests, Billings, etc.	MLRS	JLENS	AMPV						
Progress Payment Withholds	KC-46A	MLRS							
Congressional Adds	Patriot	CH-47	AH-64	MQ-9	M2A3/M3A3				
Congressional Cuts	Patriot	AMPV	WVPK	MLRS					
Congress-Continuing Resolutions	JLENS	CH-47	MLRS	NMT	AECP				
Congress-Sequestrations	AMPV	MLRS	MQ-4						
Execution-related Cuts	WVPK	MQ-9	MQ-8	AMPV	WIN-T	JPATS	MQ-4		
Management-Acquisition/Contract Strategy	MQ-8	AMPV	WVPK	DEAMS	JTRS	MLRS	EA-18G	M2A3/M3A3	
Management-Restructures	JTRS	WIN-T	AH-64	JLENS	WVPK	M2A3/M3A3			
Management Requirements	IAE	MQ-8	MQ-9	NSIPS					
Management-Support for Operations	MQ-8	MQ-9							
Management-Foreign Military Sales	Patriot	CH-47	AH-64	MLRS	EA-18G	MQ-9	NMT		
Technical or Test-related Issues	MQ-4	MQ-9	DEAMS	WIN-T	JPATS				
Better Buying Power (BBP) Initiative	WVPK	AH-64	NMT						
Funds Withholds (Military Departments)	MLRS	JLENS	ACEP						
Execution Benchmarks	CH-47								
Personnel Shortages/Lack of Experience	CH-47	AH-64	JLENS	AMPV	Patriot	C-130J			

Note: The definitions of the program name abbreviations are shown in Figure 8.

More detailed explanations can be found in the visit summaries in Appendix B. Based on the IDA research team's interviews with program office, contracting and program executive office personnel associated with these programs, several major factors affecting under-execution were identified. These factors will be examined in turn below.

- Contracting processes: Award protests, peer reviews,¹¹ negotiation delays, and contractor and subcontractor relationships
- Contracting personnel: Contracting officer shortages and inexperience
- Congressional actions: Funding additions and reductions, CRs with resulting late appropriation of funding, and sequestration
- Management actions: Changes in requirements, acquisition strategy (primarily schedule or choice of contract type), program restructuring, responses to operational needs, actions related to technology and testing, funding withholds at the Military Department level, and contractor billing processes
- Impacts of policy choices: Better Buying Power guidelines, use of execution benchmarks, and funding withholds by Military Departments while operating under CRs
- Program office personnel shortages and low experience levels

1. Contracting Processes and Directives

DOD's contracting processes have become more complex and time consuming in recent years. For example, in 2008 the Director, Defense Procurement and Acquisition Policy (DPAP) instituted mandatory peer reviews of Requests for Proposals (RFP) and contract documentation at key points in the acquisition life cycle.¹² These peer reviews were expressly intended to ensure compliance with acquisition policy, improve acquisition process quality, promote institutional learning, and most importantly, provide better contract outcomes for the Government. The Director, Defense Pricing told the IDA team that these aims are being realized, and noted that, in his view, the reviews themselves take very little time.

While personnel from several program offices agree that the reviews themselves are brief, they point to the time needed to prepare for and brief their supervisory chain prior to briefing OSD, and to resolve scheduling conflicts among experienced officials needed to conduct the reviews. The Army's Patriot program officials stated that contracting timelines have expanded from between 30 and 45 days before peer reviews, to 120 days at present. Moreover, Army

¹¹ An explanation of peer reviews is in the next section.

¹² Peer reviews are required for all contract actions (RFPs, contracts, negotiation guidelines, etc.) exceeding certain dollar thresholds. The required level of peer review depends on the contract amount and whether the contract is for supplies or services.

program officials asserted that the peer reviews did not add value commensurate with the effort expended, nor with the cost in terms of longer acquisition timelines. In addition, the Patriot program office pointed out that peer reviews were required after a negotiation, even if the outcome of negotiation fell within guidelines issued prior to the negotiation. (Navy and Air Force program offices visited did not express concerns to the same extent as the Army.)

In addition to undergoing peer reviews, program offices are also required to conduct legal reviews. Again, these reviews are well intended in that they aim to decrease award protests and risk to the department of violating contracting laws or directives. However, program officials stated that in some cases, legal reviews can cause excessive turbulence to a program, for example due to high turnover among attorney advisors or to a requirement that an attorney approve acquisition documents, rather than provide advice. In one instance, the Army's Tank and Automotive Command worked with six different lawyers reviewing documents over a six-month time span. Program officials suggested this level of scrutiny is unnecessary and may reflect an overly risk-averse culture among contracting personnel.

A third example of contracting-related factors concerns directives or regulations that impede program offices' ability to achieve full disbursement of obligated funds. An extreme example is the RDT&E contract for the Air Force's KC-46 aerial refueling tanker. The Air Force is required to obligate funds to cover termination liability; however, that funding is not actually disbursed unless the contract is terminated. In addition, the program office must withhold 20 percent of each progress payment as required by Federal Acquisition Regulations (FAR). Lastly, the Government must also withhold 17 percent associated with expected contractor losses on the contract, in accordance with the FAR. As a result of these factors, cumulative disbursements will lag well below obligations, which are tied to termination liability. Program officials stated that disbursements will fall below benchmarks for several years, beginning in FY2014, creating the appearance of an under-executing program.

An example of the potential for complexity and delay in contracting was found in the Air Force C-130J program. The procurement contract is sole source. According to the program office, it takes from 795 to 895 days between the request for price and availability data and a signed contract award for an annual lot buy. The reasons for this lengthy process trace back to 2006 when the section of the FAR under which C-130Js were procured was changed from Part 12 (acquisition of commercial items) to Part 15 (contracting by negotiation) to reduce cost. And it was successful in meeting that objective. The C130-J contracting time line is illustrated in Figure 10.

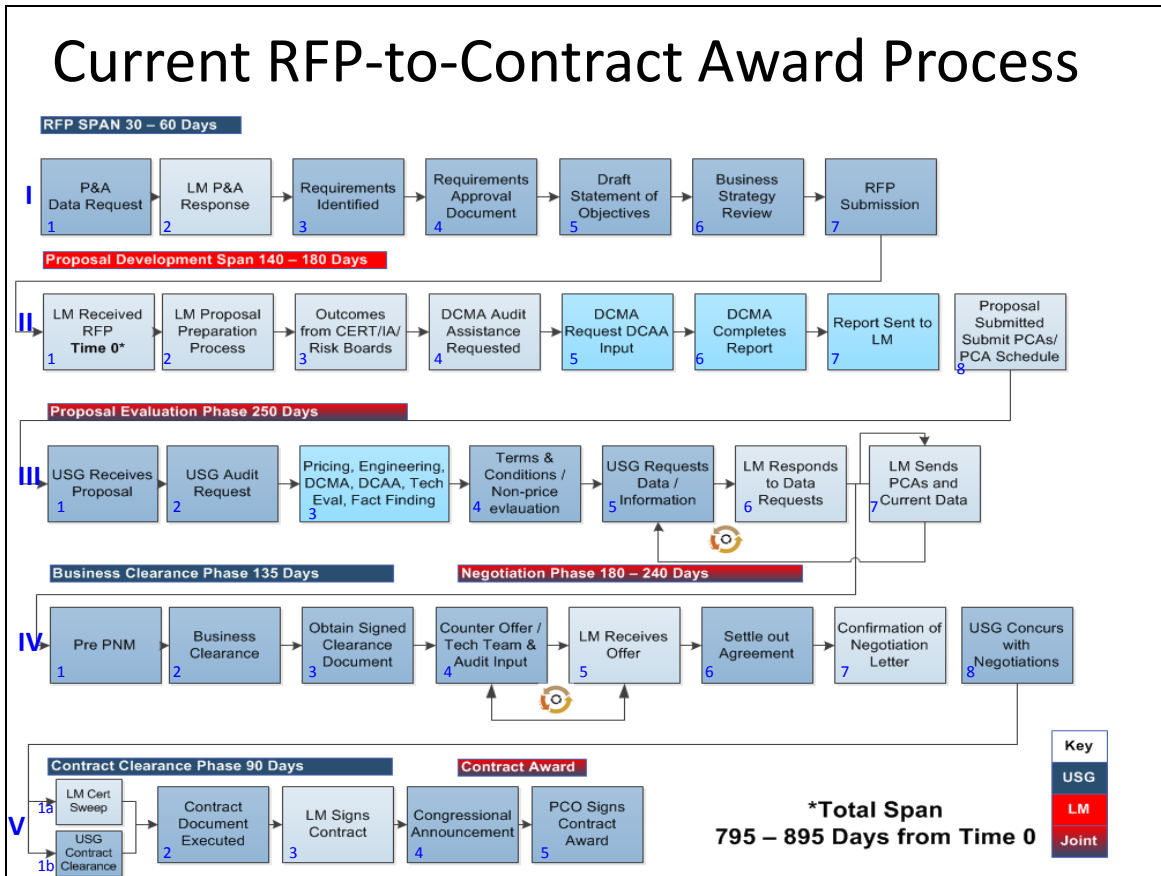


Figure 11. C-130J Procurement Contracting Process

Three principal phases of the C-130J contracting process drive the lengthy timeline:

- **Proposal Evaluation Phase.** For the most part, the contractor’s proposals are not compliant with Defense Contract Auditing Agency (DCAA) standards¹³ because DCAA requires many of the subcontractors to submit proprietary rates and pricing data before providing an audit opinion. These companies are reluctant to give that information to the prime contractor. Consequently, DCAA only performs a partial audit. The Air Force must use Government cost-price analysts to obtain the information to develop a negotiation position.¹⁴
- **Business Clearance Phase.** This phase establishes DOD’s negotiation position. It is lengthened because of the complexities of collecting and assimilating the cost and pricing data from the subcontractors.

¹³ In August 2008, DCAA was criticized by the U.S. Government Accountability Office (GAO) for not having enough independence. Before that, DCAA was involved earlier in the contracting process, but since then, DCAA works less in parallel.

¹⁴ For the ongoing FY2014 multi-year contracting process, about half of the information had to be obtained in this manner.

- Negotiation Phase. Conducting negotiations is consequently harder and takes longer because of the amount of data obtained by the cost-price analysts. A contributing factor is that the cost-price estimators are not necessarily familiar with the companies they deal with and consequently the quality of the data may not be as high as the data obtained from onsite DCAA auditors. Another contributing factor is a lack of forward pricing rate agreements with Defense Contract Management Agency (DCMA) for fixed-price contracts. In addition, the IDA team was told that contractor dissatisfaction with the lower profit margins that followed the change in contract type (from FAR Part 12 to Part 15) also increases negotiation time.

2. Contracting Personnel

Several program offices pointed to challenges associated with recruiting and retaining contracting personnel. Naval Air System Command (NAVAIR) officials cited difficulties in hiring entry-level contracting officers. In the past, the command used an intern program, which allowed them to bring in students from local colleges who were likely to remain in the area. However, NAVAIR must now use Pathways, a new program sponsored by the Office of Personnel Management. This program mandates veterans' preferences and specifies that veterans may be considered for the Recent Graduates Program for up to six years after completing a degree. Often, a veteran's prior experience does not relate to contracting, unlike the interns who learned contracting skills while in college. In addition, since veterans are normally not local residents, they may be unwilling to move to St. Mary's County, home to Patuxent Naval Air Station, or they may decide to relocate after working for only a short period. These challenges may lead to a declining experience level and may become a factor in execution of funds.

A shortage of contracting officers was noted in the 2012 DAU study, and several program office interviews reinforced that concern. The research team spoke with Army contracting officials at three locations that reflected different contracting personnel challenges. The first, Aberdeen Proving Ground, MD, had sufficient contracting officers to complete its mission. The contracting staff was "right sized" when the Communications and Electronics Command was transferred from Monmouth, NJ to Aberdeen, and has been successful in assigning contract personnel to program offices so that they retain a sense of ownership in the office's contracting actions. However, there is a shortage of *experienced* contracting officers, requiring careful management of contracting office staff expertise. The second organization, the Army Contracting Command Redstone, in Huntsville, AL, has been experiencing an overall shortage of contracting officers. Officials there reported 150 vacancies out of 600 authorized, and stated they can hire only one officer for every four vacancies that occur. The third location, Army Tank and Automotive Command, in Warren, MI, reported that although it had a small pool of people qualified to work in program offices, the greatest shortfall was in contract specialists and cost analysts. Moreover, approximately 70 percent of the contracting workforce had less than five years of experience. The Navy and Air Force program offices visited did not air similar

concerns, even when prompted (the recruiting issue at NAVAIR was in response to such prompting).

Reported shortages of contracting officers and diminished experience levels are difficult to correlate directly with instances of under-execution, and, as noted, not all program offices cited this as a major challenge. However, since the contracting function must be accomplished to obligate and disburse funds, it is reasonable to conclude that reductions in the quantity or quality of the contracting workforce may lead to increased lead times to prepare, process, and execute the contracts. Lack of experience can also lead to overly risk-averse behavior. The Defense Logistics Agency (DLA) has undertaken an initiative to decrease contracting timelines and is examining, in particular, the administrative lead time. It may be possible to draw from DLA's efforts, which are reported to have led to significant reductions in timelines.¹⁵

3. Congressional Action

Program offices reported experiencing challenges when Congress added funds to a program as well as when funds were cut. The Patriot/ Medium Extended Air Defense System (MEADS) program office was allocated \$158M more than requested in FY2013 to procure sixty additional missiles. That amount could not be obligated within the program's existing contract ceiling. The following year, the program's appropriation was increased by approximately \$150M to procure thirty additional Missile Segment Enhancement (MSE) missiles. Conversely, Guided Multiple Launch Rocket System (GMLRS) program officials stated that the Alternative Warhead variant sustained a \$14M congressional reduction in FY2014. This reduction may result in a "stop-work" order unless reprogramming is approved. Should that occur, processes associated with restarting production may be costly and time-consuming, thereby affecting execution performance.

The Marine Corps was unable to execute \$83M in FY2011 and \$45M in FY2012 added by Congress without consultation regarding funds executibility.

In the case of the Joint Tactical Radio System (JTRS), Handheld, Manpack, and Small Form Fit (HMS) program, congressional action led to a major change in the approved acquisition strategy from dual source to full and open competition. By August 2013, the Army had completed a business case analysis, prepared a draft request for proposals, and a draft acquisition strategy under the assumption that the full and open competition would result in an award to a single vendor under a five year contract for the rifleman radio. Vendors who anticipated being affected by the single-vendor approach approached members of Congress with their concerns. Subsequently, the program office received direction from USD(AT&L) to instead pursue a strategy of multiple awards to multiple vendors. The time needed to obtain approval for this

¹⁵ Sydney J. Freedberg, Jr., "From Afghan Sell-Off to Pacific Build-Up: The Strategy of Logistics," accessed on June 12, 2014, <http://breakingdefense.com/2014/06/from-afghan-sell-off-to-pacific-build-up-the-strategy-of-logistics/>.

change to the acquisition strategy, coupled with subsequent delays in contract award, left program officials only able to obligate 14 percent of appropriated funding in FY2013.

CRs have a greater impact on RDT&E disbursements than procurement obligations because late arrival of funds leaves less time in the fiscal year for the contractor to perform and receive disbursements. This occurred in several programs investigated. And any program that is considered by Congress to be a “new start” will not be provided funding under a CR.¹⁶ Thus programs so classified may not even obligate, much less disburse the funds, until a DOD appropriations act is passed.

The Marine Corps reported that the FY2011 CR had a detrimental effect on procurement obligations for the High Mobility Artillery Rocket System (HIMARS). The contract for this program is executed by the Army in December of each year. Since the CR limited available funds to the prior-year amount, which was almost \$100M less than the FY2011 request, the Marine Corps was unable to fund the December contract award to the required level, resulting in a one-year delay in obligation of the FY2011 funds eventually received. The contract paid a higher unit price due to the lower production quantities and delayed replenishing stocks expended in ongoing contingency operations. The FY2011 CR also forced the Marine Corps to withhold funds from the Procurement, Marine Corps account to pay for manpower costs that could not be funded under the CR. Eventually the funds were released, but execution was delayed by at least nine months.

The Marine Corps also noted that Overseas Contingency Operations (OCO) funds received in the third quarter of FY2009 could not be executed in that year. Also, approval of reprogramming requests for \$89M in FY2012 and \$300M in FY2011 was not obtained until after the end of the fiscal year.

4. Management Actions

Programs that experience challenges that preclude execution of funds, such as testing issues and change of contract type, often encounter funding turbulence that further delays recovery efforts—and increases management attention—over a period of years. An example is the Navy’s MQ-4 Triton unmanned aerial system. The MQ-4, which partially recapitalizes the maritime patrol and reconnaissance mission, was selected as a well-executing program for review by the research team because of its high RDT&E disbursements rates for FY2011–FY2013. The lowest disbursement in those years, 58 percent, occurred in FY2013. While still above the comptroller benchmark for RDT&E programs, this lower figure reflected a change in contract type from “cost plus award fee” to “cost plus incentive fee,” which caused an unplanned delay of six months.

¹⁶ A “new start” under law is much stricter than might be thought. Any new activity in a program office might be considered a new start.

The program also encountered several obstacles in the execution of procurement funds. Difficulties in testing delayed the Milestone C decision from March 2013 to November 2014, thereby precluding execution of FY2013 advance procurement funding. Because of this delay, Congress disapproved the program's FY2014 advance procurement funding request. Without that funding, the program office was unable to contract for low rate initial production vehicles in FY2014, and DOD requested the funds again in FY2015. In addition, sequestration reduced RDT&E funds by \$45M, of which the Navy was able to restore \$10M via reprogramming. This sequence of events illustrates how unanticipated events, such as test failure, can cascade when combined with sequestration and congressional reductions to result in turbulence within a previously well-executing program. An added aspect from the program office's point of view is the high level of management scrutiny accorded to programs that do not reach execution benchmarks, which result in recurring reviews by higher management levels. Because of the fact-of-life nature of this particular delay, the reviews—however necessary they may be within a system that focuses on achieving benchmarks—increase both management and program office workloads but do not result in enhanced program performance.

A second program affected by testing issues and management changes was the Air Force managed Defense Enterprise Accounting and Management System (DEAMS) program, which uses enterprise resource planning software to provide accounting and management services for the United States Transportation Command, the Defense Finance and Accounting Service, and the Air Force. Poor performance on two operational assessments in August 2012 jeopardized the program's ability to field in sufficient time to generate auditable financial statements by FY2017, a goal set by DOD.¹⁷ The OSD Deputy Chief Management Officer (DCMO) took these factors into account in considering whether to authorize an upgrade to the underlying Oracle software as previously planned. The DCMO metered funding to the program in incremental obligation authority via multiple Acquisition Decision Memoranda in 2012 and 2013. Milestone Decision Authority (MDA) transitioned from the DCMO to the USD(AT&L) in November 2013. Because of these testing issues and slowed spending while awaiting decisions on the Oracle software upgrade, RDT&E disbursements in FY2013 were below OSD benchmarks, at 41 percent.

The Air Force MQ-9 Reaper program office also experienced challenges related to requirements changes and operational impacts. This program has grown rapidly in response to operational needs over the past decade. The Secretary of Defense directed the Air Force to achieve a capability of sixty-five Combat Air Patrols consisting of MQ-1 and MQ-9s by May 2014. The total acquisition objective for MQ-9s associated with that goal has fluctuated in

¹⁷ According to the Director, Operational Test and Evaluation's (DOT&E) 2012 Annual Report, "AFOTEC began, but did not complete, an Early Operational Assessment (EOA) of DEAMS from August through December 2010 in accordance with a DOT&E-approved test plan. AFOTEC cut the EOA short when it became apparent that major system deficiencies were present and that the planned Milestone B was significantly delayed. After the program manager declared that DEAMS had been stabilized, AFOTEC conducted a second OA of DEAMS Increment 1 Release 1 from May through June 2012 in accordance with a DOT&E-approved test plan."

successive President's Budget Requests. In the FY2013 and FY2014 President's Budget Request, the total acquisition objective was 404. Program office personnel stated that for FY2015, the acquisition objective dropped to 303 in the Air Force POM, and was then partially restored to 346 in the FY2015 President's Budget Request.

Another source of requirements changes is driven by the needs of distinct communities that operate the Reaper. MQ-9 customers include Air Combat Command (ACC) and Air Force Special Operations Command (AFSOC), as well as other countries via Foreign Military Sales. Program office personnel told the research team that in late 2013, the Air Force received a Joint Urgent Operational Need Statement (JUONS) for modifications that would enhance the MQ-9's support for combat operations in Afghanistan. The Air Force fielded the requested capability on March 1, 2014. A second JUONS was received in December 2013 for thirty-eight extended range (ER) retrofits to be delivered by March 2015—this need was related to AFSOC mission profiles. In response, an Undefined Contracting Action (UCA) was signed on February 5, 2014. This change also had an impact on the program's schedule, since the program office had budgeted to update all Block 1 (Dash 12) MQ-9s to Block 5 by April 2016. However, the Block 5 kit cannot be installed on the ER version of the Block 1 (Dash 12) MQ-9. In addition, following the FY2015 Program/Budget Review (which took place in late 2013) the program office received direction to procure or retrofit an additional fifty-three MQ-9s in the ER configuration.

These requirements changes—regarding numbers of aircraft, foreign sales, modifications, and configuration changes—contributed to an unstable production rate and produced gaps between what could be placed on contract and the available funds. Because of these execution challenges, a portion of the program's FY12 funding was reprioritized within the PE and some funding was reprogrammed. As noted above, the program also employed a UCA in response to a JUONS in late 2013, partially mitigating the execution challenge. However, UCAs also create additional workload, and their use is generally discouraged.

Virtually all program offices visited by the research team reported challenges like those described above. Currently, when changes occur that are beyond the control of the program office, there is little ability to adjust program funding or otherwise restructure the program in the near term. As a result, programs receive increased scrutiny, which coincides with the increased workload associated with revising the program plan and attempting to reallocate funding. The risk for program managers is akin to being “behind the power curve”: it becomes necessary to apply more and more effort to pursue revised courses of action, which may require additional explanation if they result in delayed deliveries or increased costs.

The Marine Corps reported that changes in acquisition objectives (AO) required to equip the force have been major causes of execution delays over the past several years. These changes were dictated by the force structure drawdowns associated with reduced operational deployments. Planned procurement quantities had to be reduced to reflect reductions in force structure, which translated into reductions in funds needed and delays in contract awards. Large

amounts of OCO funds appropriated in FY2012 and FY2013 were not required, and thus not obligated.

5. Impacts of Policy Choices

Program officials report that they frequently find themselves needing to, simultaneously, pursue goals that are incompatible with one another. For example, the desire to achieve execution benchmarks encourages managers to commit funds on schedule if an acceptable bid is received. Contactors know that, and so the Government's bargaining position is weakened; in some cases the contractor may purposely choose to delay negotiation to increase pressure on the government. Another dynamic is exemplified by the Army's Wheeled Vehicle Protection Kit program, which had been awarded to a large DOD prime contractor. The Army determined it could save 10–20 percent by competing the contract, but the time required for the competition meant that the FY2012 obligation authority was placed at risk. The Army chose to make a smaller award (\$40M) to the existing prime contractor in June 2013, and to award the competitive contract three months later, just prior to the expiration of obligation authority for FY2012 funds.

In the case of the Army's Armored Multi-Purpose Vehicle (AMPV), a similar mismatch developed between the acquisition strategy and the available funding. The program's funding was planned to support a sole-source strategy, however the acquisition strategy approved by the USD(AT&L) in November 2013 mandated a full and open competition. Delays in implementing this directive led to a failure to complete the contract on schedule. Therefore, the program was overfunded, with \$31M and \$74M allocated in FY2012 and FY2013 respectively. Eventually, FY2012 funding was reduced to \$12M, and FY2013 funding was reduced to \$13M, through a combination of congressional reduction, sequestration, and rescission.

The time lag between the FY2012 and FY2013 funding requests and the approval of the acquisition strategy in late 2013 was due, in part, to an iterative review process. After review by multiple management levels, the USD(AT&L) requested changes to the Army's draft acquisition strategy. The revised strategy was reviewed again by the entire chain of command before it returned to the USD(AT&L). Along the way, reviewers who had not participated in the first review also made comments which required resolution, even if the comments were beyond their organization's official responsibilities. The program office's view was that all comments had to be accommodated before the acquisition strategy could be approved.

In addition to the challenges associated with obtaining an approved acquisition strategy, program officials are required to submit the RFPs for a peer review before they are issued. The peer review process, administered by DPAP for non-competitive contracts that exceed \$500 million (or over \$1 billion for competitive contracts), elicits guidance from seasoned acquisition and financial professionals at key points such as RFP issuance and before and after contract award. However, the required actions following the review are not fully documented—no decision memorandum is issued to document required changes. As it is unclear whether a peer

reviewer's comment should be merely considered or whether action must be taken, the AMPV program office chose to treat all reviewers' verbal comments as required changes. This may reflect a generally risk-averse approach to executing acquisition processes. Several Army program offices felt that the peer review process was overly restrictive, with one manager stating that peer reviews were strangling the acquisition process. At a minimum, these views suggest the need to revisit peer review guidance to ensure that its intent is clear to program offices.

The greatest concerns regarding the peer review process were expressed by Army program offices visited by the research team. While Air Force and NAVAIR officials questioned whether the value added provided by the reviews outweighed the effort expended, they did not see peer reviews as a major impediment to program execution.

6. Execution-Related Reductions in Funding

An example of the impact of execution-related reductions in funding is the MQ-9 Reaper program, whose planned spares budget was reduced by \$24M and \$46M in FY2014 and FY2015, respectively, allegedly for under-execution.¹⁸ These reductions will affect the program office's ability to deliver the required spares with new aircraft, as well as to release RFPs and execute timely contracts. The reductions are programmed to be restored in subsequent fiscal years, which will cause a larger than planned increase between the year that funding was reduced and the year that funding will increase. This re-phasing will cause continued difficulty in achieving execution benchmarks. On the other hand, OSD(AT&L) contemplated larger reductions in the MQ-9 program's procurement request in both FY2014 and FY2015 due to low obligation rates. These cuts were not ultimately implemented, but they illustrate the lack of visibility into OSD and Military Department financial decision-making from the program office's perspective and the lack of sufficient investigation before implementing execution-related funding reductions.

7. Program Office Personnel Issues.

Beyond the challenges of managing the contracting workforce mentioned earlier, several program offices cited concerns with personnel shortages and inexperience within the program office more generally. The following are examples:

- AH-64: "Operating at 55 percent capacity because of inability to hire more procurement analysts"
- CH-47F: "A smaller and increasingly inexperienced workforce is dealing with a more complex contracting process."

¹⁸ These funding reductions, which could have been initiated by OSD or Headquarters, U.S. Air Force, were communicated to the program office as resulting from a Resource Management Decision.

- Patriot: “Age of the workforce is a concern; there will be a lot of retirements over the next five years.”
- C-130J: A lack of cost-price analysts to obtain cost and pricing data from sub-contractors inhibited a timely contract award.
- AMPV: A shortage of experienced cost analysts in the Tank and Automotive Command was an impediment to writing an RDT&E contract.

A senior official in Headquarters, U.S. Marine Corps, noted that declining budgets create downward pressure on staffing levels not only in contracting offices, but also in requirements offices and program offices. The widespread nature of these concerns suggests that there should be increased management attention on ensuring that the skills and experience of the workforce is aligned with the demands of a contracting process of growing complexity.

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4. Insights and Recommendations

A. Best Practices

The research team identified a number of best practices in use at various levels of the organization. These practices have often been developed within a program office in response to earlier difficulties or to address management concerns. Identifying and sharing these practices among program offices hold promise for improved execution across DOD.

The research team found that tight coordination between program and contracting offices is necessary to assure a common understanding of timelines, priorities, and requirements. In some cases this was achieved by assigning contracting officers to the program manager or aligning needed competencies to a program as required. Whether or not the contracting officer was assigned to the program manager, co-location on the same premises contributed to shared awareness of priorities. When co-location was not practical, an effective coordination process is needed to promote common understanding between program managers and contracting officers.

Many program managers reported that they strive to identify unexecutable funds as early as possible, to allow DOD processes to attempt to find a suitable solution. A Military Department reduction via reprogramming or in its program objective memorandum (POM) submission can enable a program's funding profile to more closely match the program office's ability to obligate funding. To initiate this reallocation process, there has to be confidence that the resource allocation and financial management systems will restore funds when they are needed. Otherwise, program managers may feel pressure to accept late execution rather than risk the permanent loss of resources needed to deliver planned capabilities. In addition, there is a risk that a reprogramming request may not be approved. For example, the M1A1 Abrams program requested to reprogram \$72M of its FY2012 funding, but Congress denied the request. (A broader, more flexible reprogramming process would facilitate timely reallocation of unexecutable funds.¹⁹)

In addition to tight coordination between program offices and contracting officials and early identification of unexecutable funds, several program offices have developed best practices that may have general applicability throughout DOD.

Cost Estimation and Execution Tracking. The Army's AH-64 Apache program office has developed strong linkages between cost estimation and execution. Budget formulation starts with the cost estimation team, which is tightly linked with the program office. This team develops a

¹⁹ The reprogramming thresholds have been in place since 2003 and are not adjusted for inflation.

spending plan using models developed in conjunction with analysts from Office of D,CAPE. The cost estimating team employs a commercially-available software package, the Automated Cost Estimating Integrated Tools (ACEIT). Using development cost estimation modeling techniques, the team also estimates research and development needs and allocates projected personnel and materiel costs among product lines (production and fielding, modifications and development, and sensors) over the life of the program. These costs are then broken out by fiscal year, and planned funding is distributed among projects according to established priority.

Once funds are appropriated, the Apache program office tracks execution using an obligation plan that takes into account contract type and funding instrument and uses a Government-owned SQL database to track obligations by product line. This database enables managers to trace funding back to the original cost estimate. The database is updated daily by program data analysts who reconcile data in the Army's General Fund Enterprise Business System against actual expenditures. This approach makes excess funds visible to program managers, enabling them to identify funds for immediate reallocation to other priorities within a budget line. Regularly crosschecking data in the DOD accounting systems against the program's execution data was also a best practice reported by the Navy's EA-18G program office.

Management of Procurement Processes. NAVAIR has developed an automated Procurement Management Tool (PMT) that brings disparate organizations together to agree on a plan, including specific milestones, and then to measure progress against those milestones. By tracking actual durations against the plan over time, the planning process can produce better estimates. PMT's purpose is to standardize the procurement process, provide a common tracking system, and assist in workforce training. It can also be used to help PEOs prioritize resources across programs by graphically portraying program status and ability to execute funds. NAVAIR officials emphasized that the tool is beneficial only if leaders use it to manage their acquisition processes, and not merely for data entry.

The PMT is also being used on a trial basis by the Air Force (MQ-9 Program Office, Program Executive Office for Intelligence, Surveillance, Reconnaissance and Special Operations Forces) and by the Marine Corps Systems Command. The MQ-9 program office uses PMT to produce metrics on which processes are causing the program to miss targeted milestones. The PMT system produces a spreadsheet that can be added to the Air Force's financial management system, thereby increasing visibility of the program's status among Air Force acquisition and financial managers at all levels. The program office is also currently assessing and improving its internal processes using PMT. If the trial is successful, PMT may be adopted for use throughout the Air Force's Life Cycle Management Command. As this and similar tools mature, insights and best practices can be shared among the Military Departments and taught in acquisition certification courses.

Contract Pricing. Several program offices reported challenges in evaluating pricing data provided by contractors or subcontractors. While the DCAA often has better access to pricing data than the program offices, there are policy restrictions on DCAA's ability to share these data.

Therefore, program offices must devote internal resources to analyze pricing data submitted by contactors. The Navy's MQ-4 Triton program officials prefer to obtain data from DCAA whenever possible.

Contract Negotiations. The Air Force's C-130J program office identified the need to continually emphasize best value for the Government in conducting negotiations. Doing so may necessitate a more lengthy negotiation process and may even preclude reaching execution benchmarks, but it is fully compliant with Better Buying Power guidance from OSD. Because of the extended timeline associated with execution of annual lot purchases, Air Force C-130J program officials consider entering into a multi-year contract (when appropriate) a good way to reduce negotiation delays.

Contractor Relations. Both the MQ-9 Reaper and the EA-18G Growler program offices hold monthly meetings with prime contractors to promote communication and accountability. They review whether prior commitments have been fulfilled and request explanations for any delays, including those caused by subcontractors. The EA-18G program office reported that these reviews serve as an incentive for their prime contractor to complete billing processes in a timely manner.

Requirements Discipline. Changes to requirements can bring about the need to renegotiate contracts, slowing the program and often increasing costs. The Air Force's KC-46 tanker program office has taken a novel approach to imposing discipline on the requirements process: Service acquisition executive approval is required for all engineering change proposals. This appetite suppressant should enable the Air Force to maintain the terms of an advantageous contract.

Component Comptroller and Acquisition Oversight. The research team held meetings at each Military Department headquarters to discuss their management of funds execution. For the Navy, the meeting included both comptroller and acquisition officials. For the other Military Departments, only acquisition officials were present. Based on these meetings it appeared that the Navy has the most mature process for dealing with funds execution. It is particularly notable that the Navy's current budget review process resembles that which was formerly employed by OSD and the other Military Departments, wherein budget hearings were attended by program managers and other stakeholders. Moreover, Navy budget analysts seemed to have well-established communications channels with program offices to obtain timely information pertinent to funds execution. This process allows Navy comptroller analysts to make well-informed funding reductions in under-executing programs, which might explain, in part, the better execution rates of the Navy.

B. Conclusions and Observations

This research has demonstrated that there has been a consistent downward trend in recent years in the percentage of budget line items and program elements meeting DOD benchmarks for

procurement obligations and RDT&E disbursements. There are a variety of plausible explanations that have been proffered for these trends, but no single causal factor has been proven to explain the phenomenon. The seemingly persistent decline in budget execution is an indication that acquisition planning has not fully adjusted to the lengthening of acquisition timelines in recent years. To the extent this is accurate, automated tools may be helpful in highlighting the gap between perceptions and reality.

The current acquisition, financial management, and contracting systems are designed to be flexible. Military Department and defense acquisition executives have wide latitude in approving deviations from processes, and spending plans and forecasts are updated at least annually. However, program officials reported that implementation can, in some ways, be rigid.

OSD execution metrics are useful as an indication that a program may have encountered unforeseen obstacles. However, in some cases the metrics trigger “false positives” and create the appearance of an execution problem where none exists. Factors, such as limits in the FAR on disbursements for fixed price RDT&E contracts, can make it much more difficult, or even impossible, to achieve the disbursement benchmark, even for an on-time, on-budget program.

The previous discussion reinforces current guidance, applicable to program and financial managers at all levels, that failure to meet execution benchmarks should be viewed as an indication of the need to gather more information, not as the sole basis for program funding or other adjustments. The metrics provide valuable information and, if used properly, can help focus attention where it is needed; however, the process must also allow sufficient time to collect and review the information needed to ensure that execution-related reductions are appropriate.

OSD officials stated that DOD’s benchmarks were based on thirty years of execution history; however, the research team did not conduct a 30-year review of execution performance. Regardless of their precise historical origins, and while they may be arbitrary to some extent, the research team finds them to be a reasonable means of identifying funds for possible reallocation to higher priority needs.

The research team collected numerous comments indicating that the acquisition process may be too risk-averse. The most often cited symptom of this excess risk aversion is the substantial lengthening of the contracting review and approval process. In one office the team visited, attorney advisors must sign off on all contracting actions. This is an example of an opportunity for acquisition leaders to empower their subordinates to weigh the risks prior to issuing blanket guidelines or adding another review. While attorney advisers clearly add value, the value should be weighed against the added workload and time it induces. Congressional time limits on availability of funds—and willingness to rescind appropriations—indicate that processes must be time sensitive. Furthermore, the overhead costs associated with legal reviews and approvals may outweigh the potential savings of avoiding a protest.

Congress frequently adds funds to programs that cannot be executed in the fiscal year. The ability to reallocate funds that can’t be executed is limited by reprogramming authority, the

thresholds for which have been in place for many years without adjustment for inflation. Higher thresholds and broader reprogramming authority would reduce under-execution.

Current policy—such as Better Buying Power and the Hale-Kendall memorandum on funds execution—encourages prudent practices that stress timely execution of funds (though not at the cost of failing to obtain best value for the Government) and reallocating funds as soon as possible if they cannot be obligated. However, implementation can be improved. The main reasons for this situation are as follows:

- Congress, OSD, and the Military Departments often reduce programs for under-execution. These reductions don't always result in a better match between program needs and funds provided. In fact, the reductions often increase the workload when program officials have to provide justification for funds restoral, work to prevent a break in production, or deal with multiple offsetting changes in funding.
- Once funds are removed, their restoral is not assured, particularly in the current budget environment. Further, re-phased funding profiles may not support the affected programs' previously approved schedules.
- Management may focus too much attention on meeting benchmarks. Senior leaders are generally briefed quarterly or even monthly on execution targets. While perhaps necessary for accountability in some cases, these reviews add to the workload since the program office must continually explain failure to meet an execution benchmark, even when fact-of-life events have precluded execution of the original program plan.
- Guidance from senior leaders translates into directives for lower levels. This is particularly an issue with peer reviews, wherein program officials feel bound to implement all suggestions by reviewers. A second area where this is evident is in the perception of a near prohibition on the use of UCAs. In both of these areas, the guidance is sound, but the implementation may deprive the program manager of the full range of options.²⁰

C. Recommendations

The research team recommends that OSD and the Military Departments take the following actions to facilitate the execution of funds:

- Develop decision support tools for tracking obligations and disbursements and keeping spending plans current. Several promising tools were discovered, including NAVAIR's PMT. Tools found to be more widely useful should be incorporated in DAU courseware.

²⁰ It should be recognized that UCAs frequently result in higher contract costs for the Government; they should *not* be used merely to improve the fund execution rate.

- Streamline review processes. Reviews of contracts, acquisition strategies, and other documents are clearly essential management tools. However, a perception exists that some of the reviews may be more costly in terms of time and effort than they return in value to DOD. Actions to remedy this problem would be to minimize the number and timeliness of reviews, limit reviewers' scope to areas where they possess expertise, and asking reviewers to clarify required changes.
- Release funds in a timely manner. Funds that are not released to the program office can have the effect of slowing execution because contractors may not be willing to commit to proposal or contract preparation unless there is high assurance that funds will be available. The Congress, OSD, and the Military Departments all play a part in the timeliness of funds.
- Provide sufficient personnel with appropriate expertise. During defense drawdowns it is normal to assume that fewer acquisition and contracting personnel will be needed. However, this may not be the case across the board, and careful attention to human capital needs should remain a priority.
- Ensure contracting support is sufficiently resourced and located to establish effective working relationships and minimize contracting delays. Close partnerships are required between contracting officers and program offices to develop shared awareness and to jointly prioritize limited resources.
- Continue to review execution data. The review of investment programs during annual OSD and Military Department program/budget reviews promotes an awareness of execution issues.
- View metrics as indicators for gathering more data, not the sole basis for program funding adjustments. Improved methods of identifying programs that are in need of restructuring can be developed once automated program management tools become more widespread among program offices.
- Work with the Congress to broaden DOD's authority to reprogram funds without prior congressional approval and to expedite the reprogramming process.

OSD and the Military Departments should continue to review execution data, and acquisition managers should continue to track execution against benchmarks while managing programs to achieve the best overall results for DOD. The review of investment programs during annual program/budget reviews promotes awareness of execution issues within both the OSD and Component staffs. In the ongoing review of potential changes to the DOD Planning, Programming, Budgeting and Execution System, consideration should be given to implementing an expanded budget review process that allows more time for review of programs experiencing slow execution of funds.

More widespread use of automated program management tools may lead to better methods for identifying programs that could benefit from restructuring. However, adjustments in funding for individual programs should be made only after a thorough investigation of the implications. Acquisition managers, in general, have more—and more timely—information available to them than do financial managers, and thus should serve as the primary source of information for making such adjustments.

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Appendix A

Historical Trends in Execution of Department of Defense (DOD) Procurement and Research, Development, Test and Evaluation (RDT&E) Accounts

Trends in Procurement Obligations by Military Department

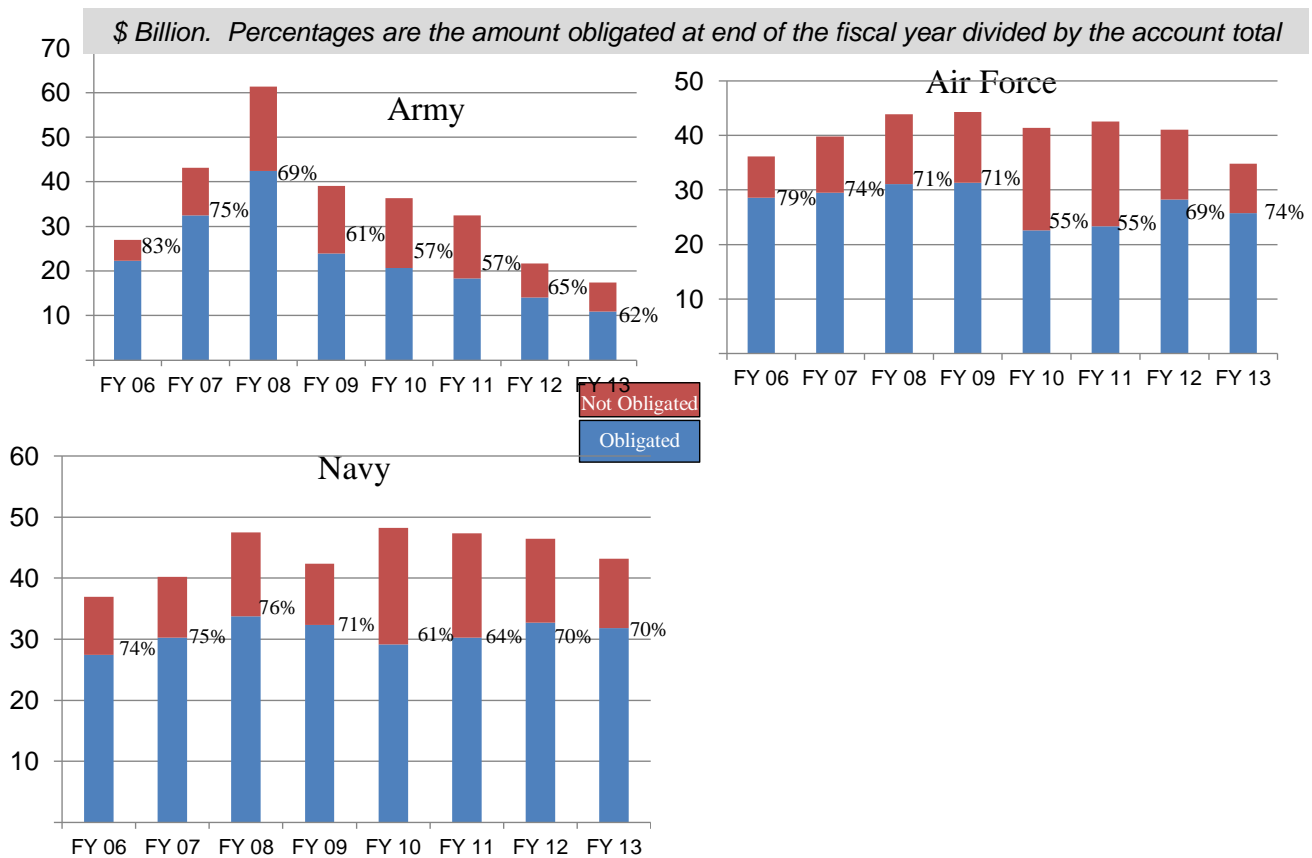


Figure A-1. Trends in Procurement Obligations by Military Department

Trends in Procurement Obligations--Army

Left Axis(Columns): \$ billion --- Right axis (lines): % of budget line items meeting 80% goal

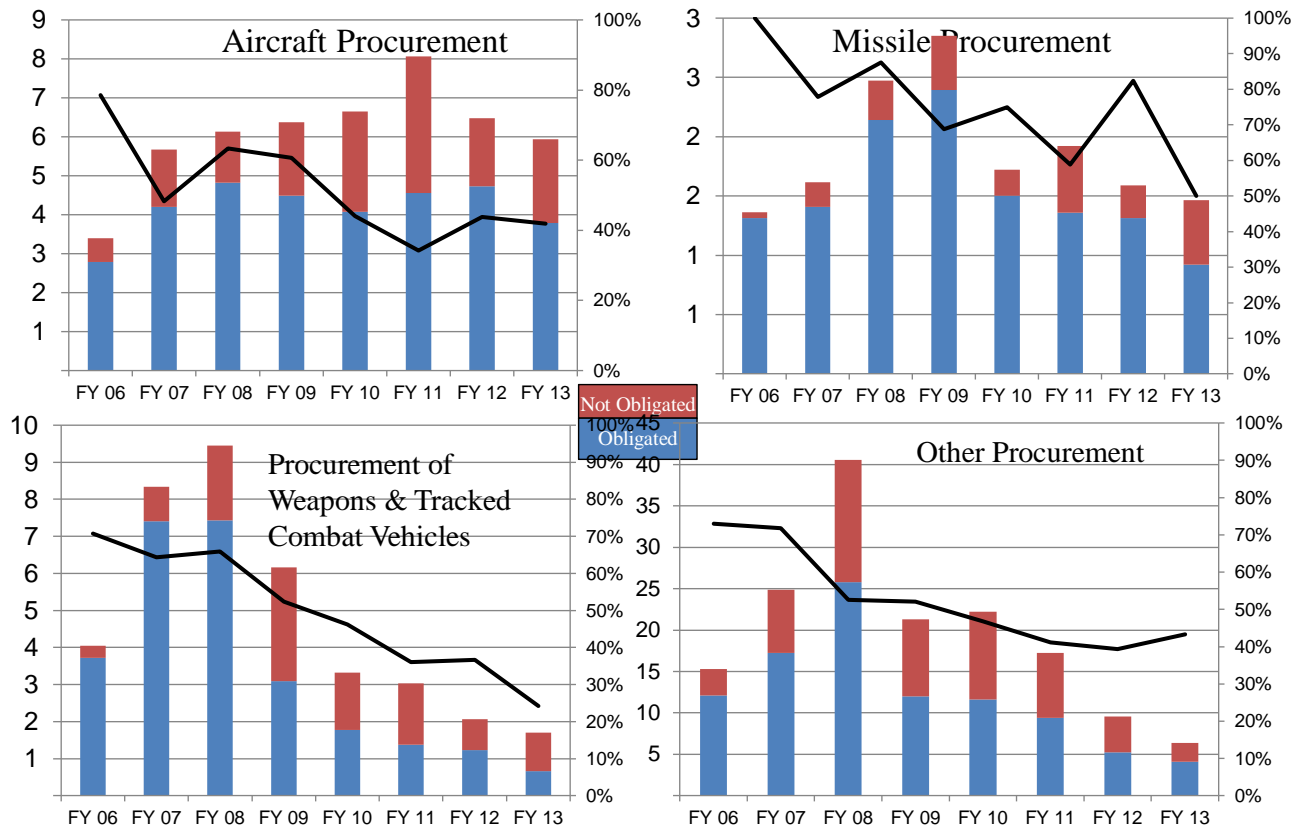


Figure A-2. Trends in Procurement Obligations—Army

Trends in Procurement Obligations--Navy

Left Axis(Columns): \$ billion --- Right axis (lines): % of budget line items meeting 80% goal

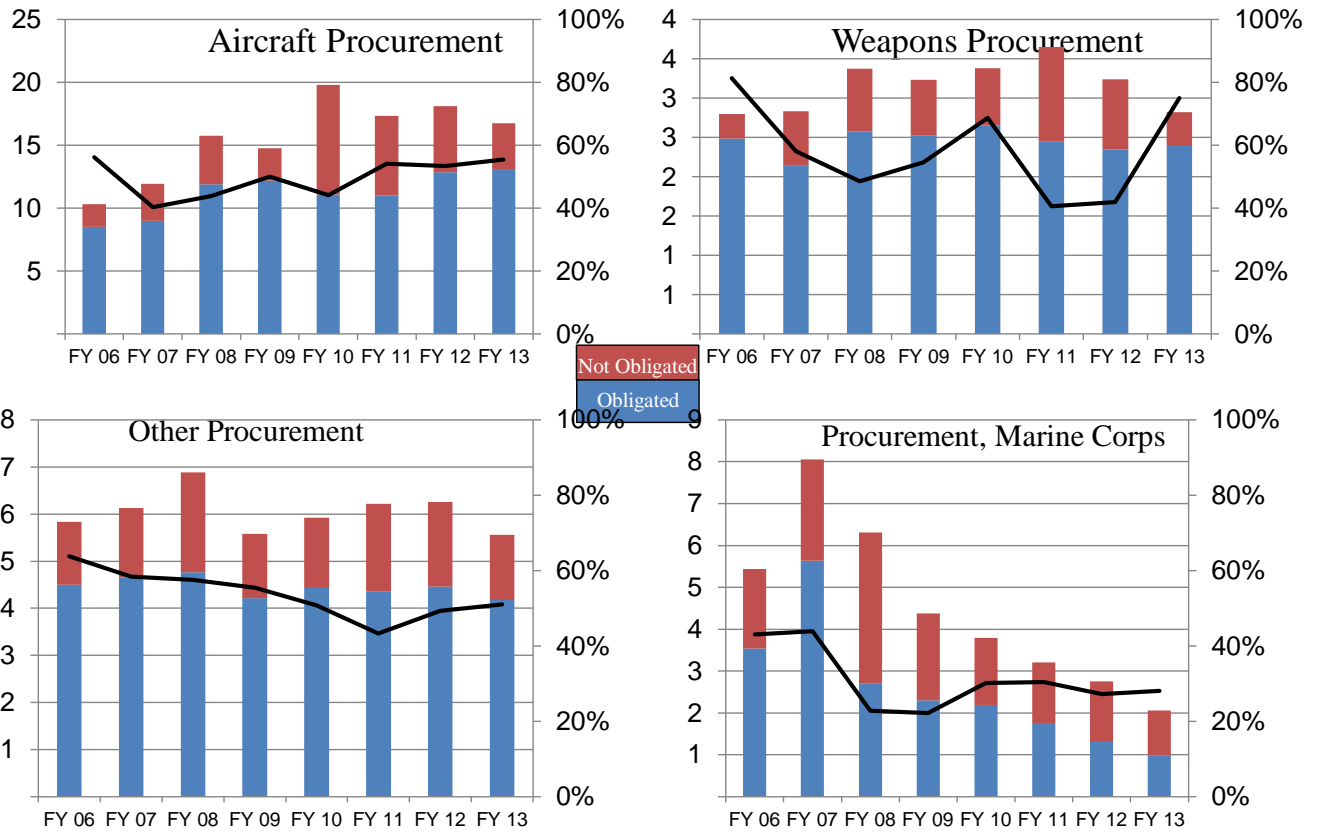


Figure A-3. Trends in Procurement Obligations—Navy

Trends in Procurement Obligations—Air Force

Left Axis(Columns): \$ billion --- Right axis (lines): % of budget line items meeting 80% goal

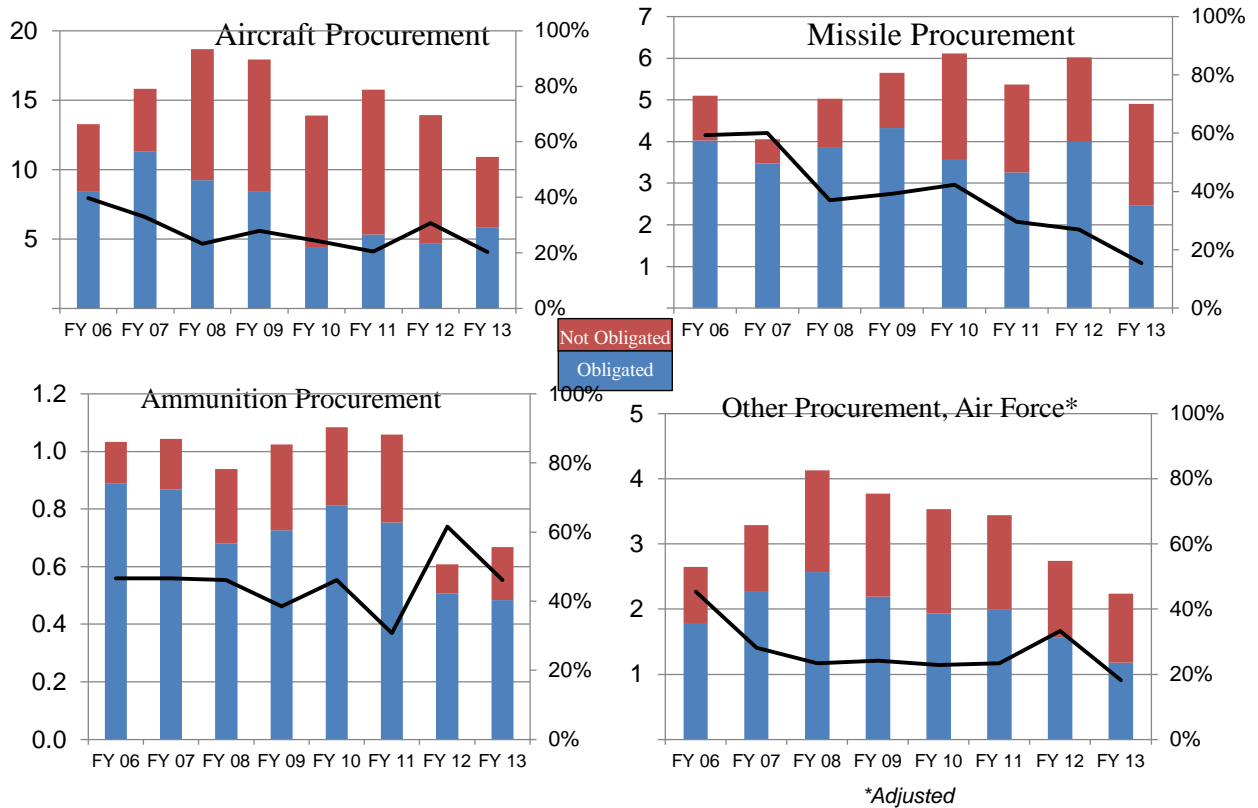
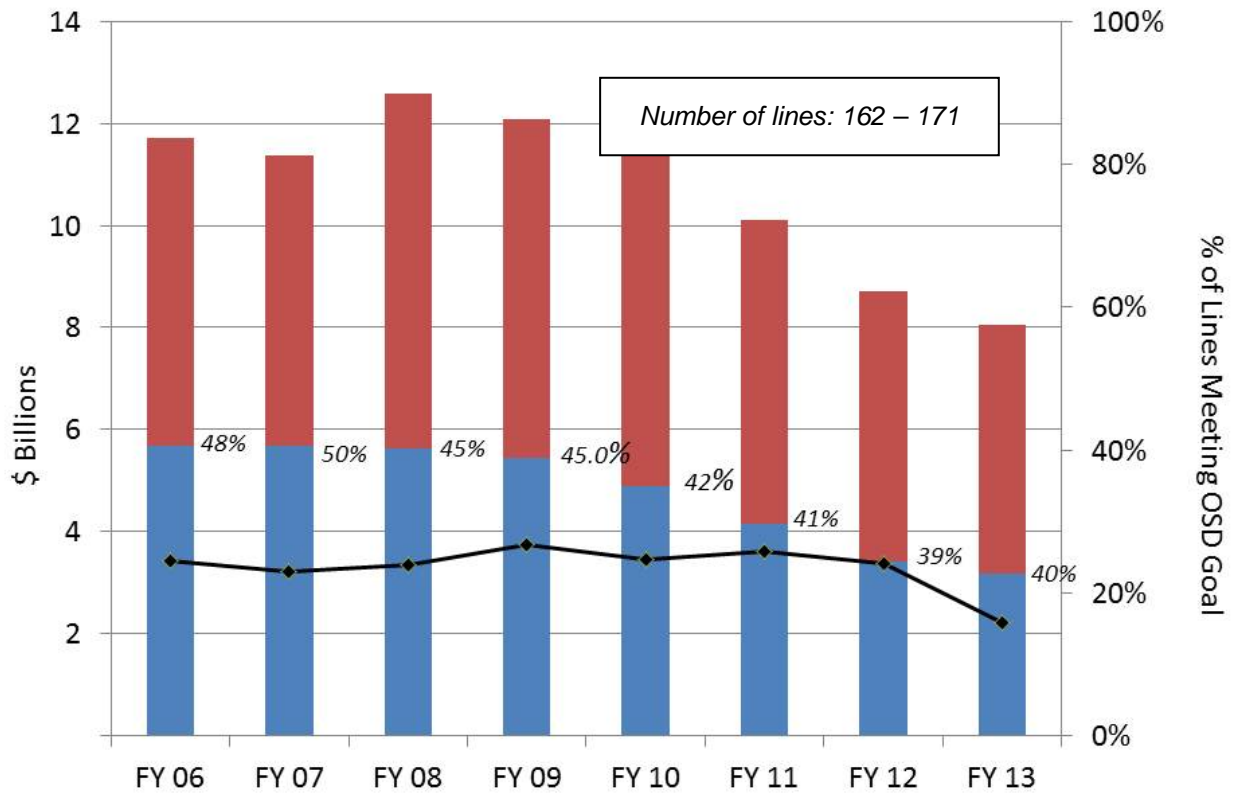
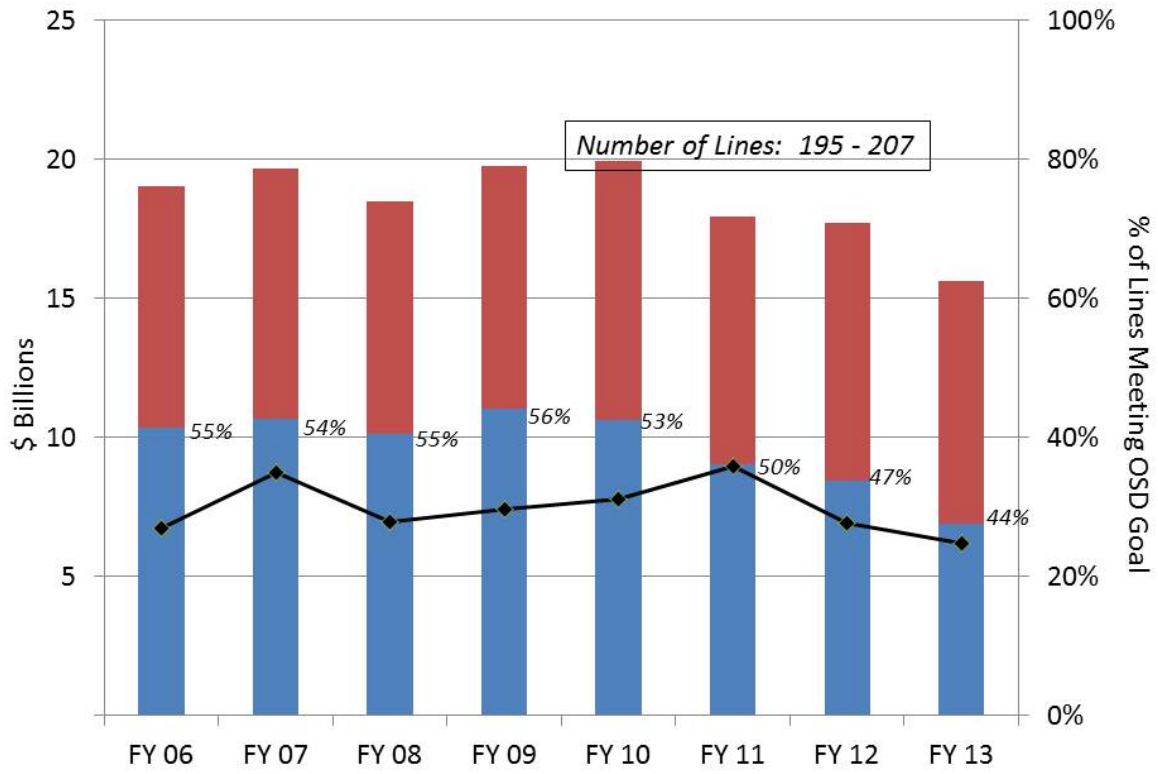


Figure A-4. Trends in Procurement Obligations—Air Force



Note: See notes after Figure A-7.

Figure A-5. Trends in Army RDT&E Disbursements



Note: See notes after Figure A-7.

Figure A-6. Trends in Department of Navy RDT&E Disbursements

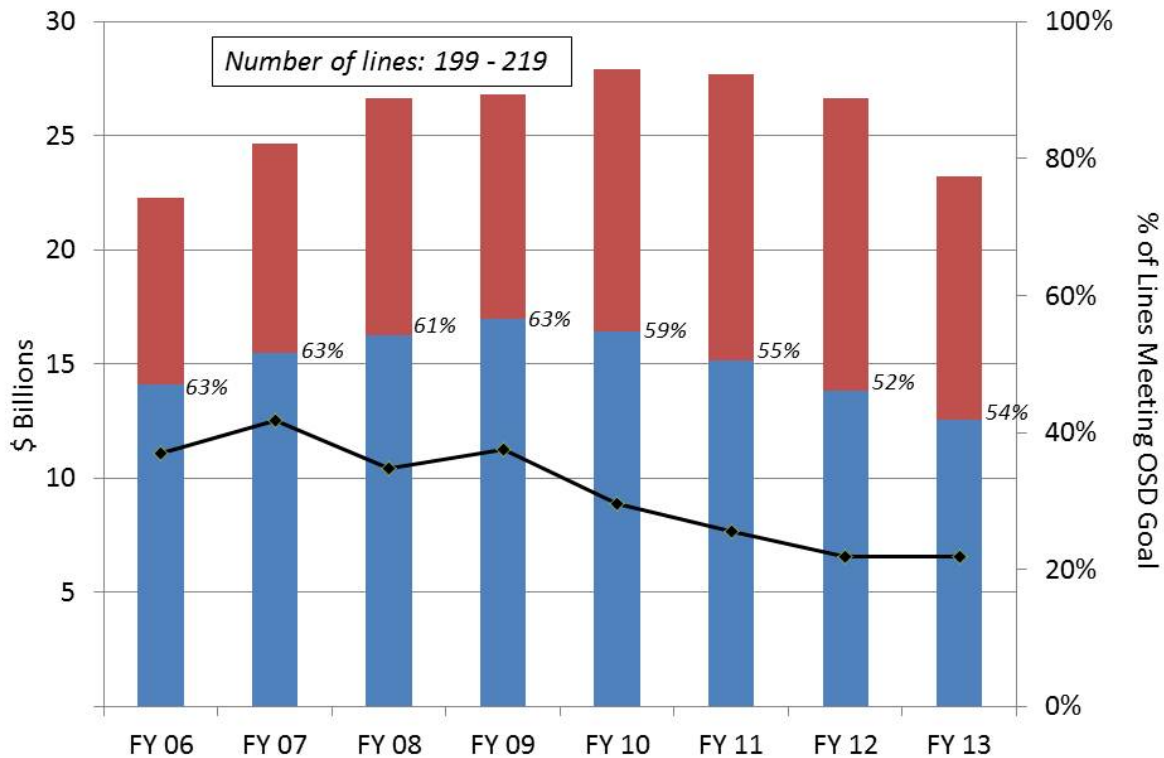


Figure A-7. Trends in Air Force RDT&E Disbursements

Notes to Figures A-5 through A-7 are as follows:

- The left axis is the research, development, test and evaluation (RDT&E) appropriation totals, divided into bars for the amounts disbursed and not disbursed at the end of the first fiscal year. The right axis is the percentage of RDT&E budget lines (program elements) that disbursed by the end of the fiscal at or above the established benchmark of 55 percent of the funds available.
- RDT&E disbursement data contain a significant amount of disbursements that are not distributed to individual program lines. Those amounts have been included in the disbursement totals but not in the percentage of lines meeting the benchmark. Thus, the figures may understate the success rate in meeting the benchmark.
- Percentages shown in labels are computed by dividing the total disbursements by the total funds available. Thus they are the percentage of the RDT&E account in each year that was disbursed by the end of the first fiscal year.
- The relatively small ammunition procurement accounts for Army and Navy are not included in the procurement graphs. Shipbuilding and Construction, Navy is also not included because that account is normally excluded from Office of the Secretary of Defense (OSD) execution reviews. All of those accounts obligated relatively well compared to most others.

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Appendix B

Summary of Insights from Program Office Visits

List of Program Offices Visited

AH-64 Apache Helicopter
Aircraft Energy Conservation Program(AECP)
Armored Multi-Purpose Vehicle (AMPV)
C-130J Hercules Transport Aircraft
CH-47F Chinook Helicopter
Combat Vehicle Improvement Program (RDT&E for Abrams and Bradley)
Defense Enterprise Accounting and Management System (DEAMS)
EA-18G Growler Electronic Warfare Aircraft
Integrated Aircrew Ensemble
Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)
Joint Primary Aircraft Training System (JPATS)
Joint Tactical Radio System (JTRS)
KC-46A Tanker Aircraft
M1A2 Abrams Tank Mod Program
M2A3/M3A3 Bradley Fighting Vehicle Mod Programs
Multiple Launcher Rocket System (MLRS) Improvement Program
MQ-4 Triton Unmanned Aircraft System
MQ-8 Fire Scout Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle
MQ-9 Reaper Unmanned Aircraft System
Navy Multiband Terminals
Navy Standard Integrated Personnel System (NSIPS)
Patriot and MEADS (Medium Extended Air Defense System)
Satellite Communications: Mobile User Objective System (MUOS)
Warfighter Information Network-Tactical (WIN-T)
Wheeled Vehicle Protection Kits (WVPK)

AH-64 Apache Attack Helicopter

- Reductions attributable to under-execution: None identified
- Causes of Under Execution
 - \$392 million in supplements in FY 2009, received in 4th quarter of FY 2009, started a bow wave of unobligated funds
 - FY 2010 OCO procurement funding received mid-April 2010
 - Contracting: Program office personnel stated that BBP added 69 days to the process.
 - Volume of work has increased while staff has been reduced by 25%.
 - Experience gap: 61% of workforce has less than 10 years; 39% has over 10 years
- Best Practices:
 - Budget formulation: cost estimation team tightly linked with program
 - Spend plan developed using Automated Cost Estimating Integrated Tool (ACEIT)
 - An SQL database, known as the Program Financial Management System, currently used by the AH-64 PMO, being reconciled with GFEBS, and will ultimately be implemented PEO-wide
 - Reconciles fund availability with actual expenditures
 - Permits immediate reallocation of funds
- Observations
 - After a Nunn-McCurdy breach, program was restructured into two separate programs: Remanufactured (Reman) and New Build
 - The total quantities were reduced, which increased unit cost
 - Mods line structured to provide significant upgrades to software and hardware every other year. The reductions in funding were accompanied by a loss of personnel with expertise

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	Proc. -BLK IIIA Reman	594	134	23%		
	Proc.-Blk IIIB New Build	325	23	7%		
	Mods	128	63	49%		
	RDT&E	202	103	51%	6	3%
FY12	Proc. -BLK IIIA Reman	381	351	92%		
	Adv. Proc. (Reman)	213	187	88%		
	Adv. Proc. (New Build)	84	19	22%		
	Mods	330	6	2%		
	RDT&E	145	101	69%	13	9%
FY11	Proc. -BLK IIIA	331	135	41%		
	Adv. Proc.	160	129	81%		
	Mods	1046	368	35%		
	RDT&E	121	101	85%	43	36%

Figure B-1. AH-64 Apache Attack Helicopter

Aircraft Energy Conservation Program (AECP)

(Funded within the Navy Energy Program PE)

- Reductions attributable to under-execution: \$6.8M in FY2013 and \$9.5M in FY2014 by Navy Comptroller
- Causes of Under Execution
 - New start affected by CRA rules
 - Relatively high technical risks
 - Extended time needed to formulate acquisition plans
 - Delay in approval of acquisition plan (by Assistant Commander for contracts), aggravated by AECP's relationship to the F-35 program
 - Contractor failed an Earned Value audit—delayed disbursements
- Lessons learned
 - Need to go on contract one year in advance to ensure timely disbursements—difficult to do
- Best Practice
 - Make effective use of Navy Enterprise Resource Planning (ERP) system

Navy Energy Program (PE 0603724N)							
	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate	AECP
FY13	RDT&E	85.6	53.2	62%	6.7	8%	19.2
FY12	RDT&E	69.8	35.0	50%	11.0	16%	23.8
FY11	RDT&E	33.1	19.6	59%	6.3	19%	-
* Execution data for AECP (subprogram) not available							

Figure B-2. Aircraft Energy Conservation Program

Armored Multi-Purpose Vehicle (AMPV)

- Reductions attributable to under-execution (All Congressional)
 - -\$19M in FY 2012
 - -\$61M in FY 2013 (incl. \$26M rescission)
 - -\$88M in FY 2014 at Army request because it was not ready to execute
- Causes of Under Execution
 - Planned sole source acquisition strategy changed. (USD(AT&L) directed competition to achieve Better Buying Power goals)
 - Implementing USD(AT&L) direction delayed due to:
 - Lengthy acquisition strategy approval process caused by iterative reviews and different people being asked to comment
 - Lack of experienced cost analysts for large R&D projects
 - Implementing changes identified in peer review
 - Contract has still not been awarded because of a protest
 - When contract is awarded, will likely not meet benchmark because contractor and subcontracts must hire and delays in buying long-lead materials
- Lessons learned:
 - The peer review process should state required changes more definitively

Note: Execution data are included in the Combat Vehicle Improvement Program and are not available separately

Figure B-3. Armored Multi-Purpose Vehicle

C-130J Hercules Transport Aircraft

- Reductions attributable to under-execution: None
- Causes of Under Execution
 - 795-895 days required to award a production contract; largest causes of delay:
 - Failure of prime and sub-contractors to provide timely and accurate pricing data
 - Shortage of Air Force cost-price analysts to review sub-contractor cost data
 - Government negotiators trying to get the best deal possible, in accordance with Better Buying Power goals, with an intransigent prime contractor that prefers the previous FAR part 12 (commercial) contract environment to the current FAR part 15 provisions
 - Cost plus RDT&E contract for avionics upgrade
 - Avionics upgrade contract must cover long-lead materials and termination liability; expenditures initially lagged because prime delayed paying subcontractors in order to incentivized them
 - Program office renegotiated contract to force faster payments because expenditure metrics were causing Congressional concerns
- Best Practice
 - Use multi-year contract where possible
 - In accordance with BBP, negotiate to get the best deal for the Government, regardless of benchmarks

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	Proc.	245.3	34.3	14%		
	RDT&E	33.3	12.7	38%	3.9	12%
FY12	Proc.	188.9	24.9	13%		
	RDT&E	44.7	25.4	57%	3.1	7%
FY11	Proc.	579.4	437.9	76%		
	RDT&E	68.01	23.4	34%	5.3	8%

Figure B-4. C-130J Hercules Transport Aircraft

CH-47F Chinook Cargo Helicopter

- Reductions attributable to under-execution: None identified
- Execution Challenges:
 - Continuing Resolution (CR) leading to late arrival of funding put contracting cycle out of sync – planned 18-month timeline for FY2014 multi-year procurement ended up taking 2½ years
 - Unexpected Congressional add to modifications program required re-planning
 - GFEBs initiation required learning curve; have contractor on site 2-3 days/week to help draw reports
 - Shortages of human capital is a growing problem.
 - Peer reviews
- Lessons learned:
 - Programs face the choice of doing right according to BBP or focusing on achieving metrics. Execution goals need to be more realistic and recognize the sequence of program events
 - Contractors are reluctant to spend Bid and Proposal money when funding levels and availability are uncertain
- Best Practices:
 - Soldier Focused Logistics is a Redstone initiative to co-locate contracting and contracting management within a program office to address the entire life-cycle management effort and program execution at the weapons system level
 - Contracting office’s willingness to accept planning documents is a good thing. Assumes risk by willingness to “lean forward.”
 - Success in getting Boeing to open competition with subcontractors resulted in \$80M savings and reduced DCAA audits
- Observations:
 - Contracting process is not structured to quickly respond to congressional adds
 - Program office personnel stated that field offices are getting no feedback from OSD on lessons learned, best practices
 - OSD is fixing perceived problems with policy, forcing a death spiral. Every policy adds to the timeline
 - OSD is requiring more workload without consultation as to impact, adds no value
 - Focus on metrics has increased workload 10-20%
 - Under CR, funding is sent to the program based upon spend plans, not need

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	Proc.	1,311	986	75%		
	Adv. Proc.	77	77	100%		
	Proc.-Mods	90	33	37%		
	RDT&E	49	20	42%	2	.04%
FY12	Proc.	1,239	1061	86%		
	Adv. Proc.	121	88	73%		
	Proc.-Mods	57	54	95%		
	RDT&E	47	47	100%	25	54%
FY11	Proc.	1,353	1,006	75%		
	Adv. Proc.	66	64	98%		
	Proc.-Mods	124	38	27%		
	RDT&E	10	10	100%	10	100%

Figure B-5. CH-47F Chinook Cargo Helicopter

Combat Vehicle Improvement Program (Supports Abrams and Bradley Upgrades)

- Reductions attributable to under-execution: 2013 RMD cut \$39M for Abrams and \$5.6M for Bradley in FY2015
- Causes of Under Execution
 - Original upgrade programs were MDAPs, with new Capability Development Document (Abrams) and a Milestone Decision in 2nd Quarter FY2011
 - Programs were put on hold in October 2010, pending a decision on program structure
 - In July 2011, the Army leadership decided to reduce the original programs to Engineering Change Proposals (ECPs) based on existing requirements
 - Change required PM to develop new acquisition strategies
 - Contracts awarded in September 2012, utilizing FY2011 funding
- Impact of reductions: Uncertain—FY2015 programs were properly structured, but the budgets were cut anyway. Potential slippage of portions of development may slide FY2015 work into FY2016 (where 60% of re-phased funds reside)
- Lessons Learned: Major program restructures can be expected to impact execution rates

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	215.4	174.8	81%	11.7	5%
FY12	RDTE	35.0	25.7	73%	7.4	21%
FY11	RDTE	187.2	16.1	9%	2.4	1%

Figure B-6. Combat Vehicle Improvement Program

Defense Enterprise Accounting and Management System (DEAMS)

- Reductions attributable to under-execution: Unknown
- Causes of Under Execution
 - Poor performance in an operational assessment
 - Incremental obligation authority provided while considering changing contract type to sole source (which would be lower cost) and a software upgrade plan
 - Delays in decision on whether to transition to Oracle R12
 - A schedule-driven requirement for DOD-wide auditable financial statements in FY2017
- Lessons learned: Stability in Acquisition Strategy is essential for smooth execution
- Observations:
 - All operational assessment problems are thought to be rectified
 - Decisions have been made on the sole source acquisition strategy and software requirements

		Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY2013	RDTE	79.2	47.3	60%	32.5	41%
FY2012	RDTE	76.2	70.9	93%	33.4	44%
FY2011	RDTE	48.1	39.5	82%	23.6	49%

Figure B-7. Defense Enterprise Accounting and Management System

EA-18G Growler Aircraft

- Reductions attributable to under-execution: None
- Causes of Under Execution:
 - Some R&D funds must be transferred to Naval Air Stations at Point Magu and China Lake for execution
- Best Practice:
 - Multi-year procurement (ended FY2013)
 - Stable requirements
 - Good working relationship with contractors
 - Use PMT but maintain manual interfaces with ERP and program spend plans
 - Execution data in ERP manually checked weekly against PMO records to ensure accuracy
- Observations:
 - No particular issues with contracting personnel (number, experience, etc.)
 - CR impact moderated by lack of new starts

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	11.8	11.2	96%	4.4	37%
	Proc.	44.9	31.5	70%		
	Adv. Proc.	939.7	858.0	91%		
FY12	RDTE	14.8	13.1	89%	6.0	40%
	Proc.	989.6	883.1	89%		
	Adv. Proc.	28.1	27.8	99%		
FY11	RDTE	20.2	19.4	96%	9.1	45%
	Proc.	955.3	861.3	90%		
	Adv. Proc.	43.9	29.5	67%		

Figure B-8. EA-18G Growler Aircraft

Integrated Aircrew Ensemble (IAE)

- Reductions attributable to under-execution: \$3M in FY2013 by Congress
- Causes of Under Execution
 - Program office relocation delayed everything for two years
 - More than 90% of the personnel did not move from San Antonio TX to Dayton OH
 - Budgets based on 2008 contract award; actual contract award was in 2010
 - Technical/contractor problems
 - One-piece suit design unacceptable to user community, leading to stop-work in 2012 (not a requirements change)
 - Small Business Integrated Research contractor lacks expertise in complying with FARs
 - Fixed Price Incentive Fee RDT&E contract inconsistent with benchmarks (must obligate to cover payments plus termination liability but withhold 10% of progress payments and 11% fee paid after audit)
- Impact of reductions:
 - None to IAE—however, other programs in the portfolio were delayed
- Lessons learned: Decremental funds are usually not restored
- Best Practice:
 - Communicate programs within the PE to Air Force Materiel Command staff so they can provide appropriate advocacy (IAE is a project within the “Life Support” program element)
- Observations:
 - Air Force cut \$5M over FY2015-2019 to fund higher priority needs
 - Working with small business takes time and requires program office assistance
 - Applying all DOD acquisition policies to every program, regardless of size, generates considerable overhead

		Funds Available*	Obligations	Obligation Rate	Disbursements	Disbursement Rate	IAE
FY13	RDTE	5.8	2.9	49%	1.5	26%	4.8
FY12	RDTE	8.0	6.7	84%	1.0	12%	5.9
FY11	RDTE	10.3	9.6	93%	1.9	19%	6.5
<i>*PE 0604706F Life Support Systems—execution data for the IAE project are not available</i>							

Figure B-9. Integrated Aircrew Ensemble

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)

- Reductions attributable to under-execution: Congress cut \$14.9M in FY2014
- Causes of Under Execution
 - Late arrival of funds under CRs limited timely obligations (Army further limits funds available under CR authority—have to request the funds)
 - FY2014 funds exceeded ceiling under existing contract—effort required to raise ceiling virtually the same as writing a new contract. Delay also caused by decision to change contracting support activity
 - Have no control over slow contractor billings
 - Initially unable to track disbursements upon conversion to GFEBs
- Impact of reductions: None cited—won't be able to meet goal in FY2014
- Lessons learned: None
- Best Practice: None
- Observations:
 - Army cancellation of procurement left program in limbo
 - Fate of two JLENS sets developed in R&D in question; immediate plan is to continue testing with the possibility of maintaining two sets to be used primarily for experimentation
 - Major causes of delays in contracting—peer reviews, inadequate contracting staff (number and level of experience)
 - Contracting process seen as too risk-averse

		Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	142.5	131.5	92%	61.2	43%
FY12	RDTE	317.4	309.6	98%	137.8	43%
FY11	RDTE	399.6	356.5	89%	246.7	62%

Figure B-10. Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System

Joint Primary Aircraft Training System (JPATS)

- Reductions attributable to under-execution
 - \$240M in FY2011 by Congress because of failure to obligate funds (outcome delayed because of CR)
- Causes of Under Execution
 - Sole-source contractor went bankrupt in 2012 (after spin-off from Raytheon in 2007), emerged from bankruptcy February 2013
 - Technical problems—only a minor technical issue with an engine upgrade in FY2010
 - Navy procurement contract is managed by Air Force
 - Problems obtaining rate agreement with the sole-source contractor (possibly related to bankruptcy)
 - UCA contract had to be unilaterally acted on by Government to obligate FY2013 funds
- Impact of reductions:
 - Apparently minor—contractor continued production at own risk; funds restored in FY2012
- Lessons learned:
 - Begin contract preparation 24 months in advance
- Observations:
 - Because of backlogs in contracting, prioritization had an adverse impact on contract preparation
 - Use of less experienced people had an impact
 - Peer reviews have had some impact due to requirement for higher level review
 - Rate agreement issues are difficult to solve

	\$M	Funds Available	Obligations	Obligation Rate
FY2013	Proc.	232.0	89.8	39%
FY2012	Proc.	235.4	228.9	97%
FY2011	Proc.	27.9	22.7	81%

Figure B-11. Joint Primary Aircraft Training System

Joint Tactical Radio System (JTRS-HMS)

Handheld, Manpack, and Small Form Fit Radios

- Reductions attributable to under-execution: OSD 2012 cut successfully appealed
- Causes of under execution:
 - Restructure and move of PMO from joint program under Navy oversight to Army management at Aberdeen
 - Congress rescinded \$190M in FY2013, limiting spending to FY2012 amount, and directed program to change acquisition strategy from dual-source to full and open competition; subsequently an Acquisition Decision Memorandum directed full and open competition for both Rifleman Radio and Manpack
- Lessons learned:
 - Army staffing of acquisition strategy changes onerous and impacted program execution
- Best Practice:
 - When feasible, acquisition strategy should be developed and staffed in parallel rather than sequentially to help mitigate delays
 - Including explicit contracting language in the acquisition strategy helps reduce objections when the RFP is submitted for review.
 - PEO direct involvement in execution plan development and execution plan reviews will ensure that funds are utilized in the most effective manner feasible
- Observations:
 - Supporting contracting office (Army Contracting Command-Aberdeen) has relatively inexperienced staff, with 80% of the staff having less than 5 years of government experience

	\$M	Funds Available	Obligations	Obligation Rate
FY2013	Proc.	232.0	89.8	39%
FY2012	Proc.	235.4	228.9	97%
FY2011	Proc.	27.9	22.7	81%

Figure B-12. Joint Tactical Radio System (JTRS-HMS)

KC-46A Tanker Replacement

- Reductions attributable to under-execution: None
- Causes of Under Execution
 - The program will under-execute in the future—Obligations must match termination liability, but disbursements will lag
 - Progress payment withhold of 20% per contract required by FAR
 - Loss ratio withhold of 17%, also required by FAR
- Impact of reductions: Not Applicable
- Lessons learned
 - Difficult to overcome false perceptions of forward financing—facts must be clearly communicated to all stakeholders
 - DFAS systems do not properly represent lengthy R&D contracts, leading to reporting anomalies
- Best Practice
 - Require Service Acquisition Executive approval for ECPs to avoid need to renegotiate contract terms
- Observations:
 - RDT&E will be under-executing until the current contract ends in 2018

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	1550.3	1546.9	100%	953.8	62%
FY12	RDTE	818.9	723.6	88%	232.5	28%
FY11	RDTE	538.9	535.9	99%	206.0	38%

Figure B-13. KC-46A Tanker Replacement

M1A2 Abrams Tank Upgrade Program

- Reductions attributable to under-execution-None
- Causes of Under Execution
 - Congress added funds in FY2012 and FY2013 due to industrial base concerns
 - Army was undecided about how to use funds
 - Army had long planned FY2012 as last production buy (\$74 million programmed in FY2013 for System Technical Support and Total Package Fielding)
 - Congress added \$255M in FY 2012 and \$167M in FY2013
 - FY2012 Congressional add put program over planned quantity buy
 - Possible decisions for FY2013 ranged from buying no more tank mods to as many as the funds would procure
 - Army decision in August 2013 to procure 12 upgraded vehicles and to strengthen other areas of industrial base
 - Vehicle upgrades procured via a UCA, awarded in January 2014
- Lessons learned: Large Congressional adds can distort program planning to such a degree that normal execution metrics may not apply

	\$M	Funds Available	Obligations	Obligation Rate
FY 13	Proc.	241.2	30.9	13%
FY 12	Proc.	436.3	313.2	72%
FY 11	Proc.	182.0	175.2	99%

Figure B-14. M1A2 Abrams Tank Upgrade Program

M2A3/M3A3 Bradley Mod Program

- Reductions attributable to under-execution - None
- Causes of Under Execution
 - All five major Bradley procurement contracts expired in FY2012
 - The program signed a three-year system technical support contract in FY2012, but consumed all of it in FY2012, requiring a new contract
 - One year into the development of a new ECP contract for FY 2013 the Principal Assistant Responsible for Contracting (PARC) directed a change in the acquisition strategy – the contract will now be awarded in FY2014
 - Congress added \$140 million in FY2013; requiring the development of a strategy on how to spend the additional funds; options included:
 - M3-to-M2 conversions
 - Support the transmission industrial base (awarding a UCA to L3 Communications)
- Lessons learned: Large Congressional adds distort program planning to such a degree that normal execution metrics may not apply
- Best Practice: Contract instruments should be properly staged to ensure that the required time-phased workload can be supported

	\$M	Funds Available	Obligations	Obligation Rate
FY 13	Proc.	266.2	46.7	18%
FY 12	Proc.	250.7	141.7	57%
FY 11	Proc.	203.0	132.1	65%

Figure B-15. M1A2 Abrams Tank Upgrade Program

MLRS (Multiple Launcher Rocket System) Improvement Program

- Reductions attributable to under-execution: Congress cut FY2014 funds by \$14.1M
 - PMO is trying to restore these funds via reprogramming
- Causes of Under Execution
 - Late release of funds under CR, longer DCAA reviews, and contract peer reviews extends timelines to contract awards
 - GMLRS contract is a UCA because of the CR
 - Lack of control over contractor billings
 - Alternative warhead contract is performance-based FFP—limits disbursement rate
- Impact of reductions:
 - Unless successful in request to reprogram \$8.3M in FY2013 funds, will have to issue stop-work order in July
 - Congress required that contract be incrementally funded, which caused re-opening of contract
 - Had to redesign FY2014 program to leverage Bradley Fighting Vehicle components (original plan not feasible with reduced funds)
- Lessons learned/Best Practice: None
- Observations:
 - CRs lead to inefficiencies—extra work to plan and re-plan, need for UCAs, etc.
 - Supporting contract activity has 14 vacancies out of 60 total: 8½ years experience on avg. A “bathtub” distribution—-all junior and senior—few in between
 - Workload has growth while workforce has decreased (plus impact of furloughs, inability to use overtime, etc.)

		Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	24.7	15.1	61%	5.0	33%
FY12	RDTE	64.6	60.5	94%	19.1	32%
FY11	RDTE	110.9	101.0	91%	24.3	24%

Figure B-16. MLRS Improvement Program

MQ-4 Triton Unmanned Aircraft System

- Reductions attributable to under-execution: Congress zeroed FY2014 Advance Procurement funds because FY2013 money could not be executed; sequestration reduced RDT&E funds by \$45M--\$10M, restored via reprogramming
- Causes of Under Execution
 - Advance procurement funds could not be executed because of technical issues revealed in testing—PMO expects to obligate the funds this year
 - Contract type changed from Cost Plus Award Fee (CPAF) to Cost Plus Incentive Fee (CPIF)—took 6 months—affected FY2013 execution
- Impact of reductions: None, since test issues prevented execution and are able to retain funds for this year
- Lessons learned
 - FY13 request for Advance Procurement funds appears to have been premature
- Best Practice:
 - Contracting: Obtain pricing data from DCMA (reduces DCAA delays)
 - Execution reviews held monthly with PEO and NAVAIR
- Observations
 - Test issues delayed Milestone C decision from March 2013 to November 2014
 - PMO feels that scrutiny of execution is excessive, creating turbulence and extra bureaucratic work

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	612.7	609.6	100%	355.7	58%
	Adv. Proc.	47.2	0.0	0%	0.0	
FY12	RDTE	548.6	534.1	97%	398.9	73%
FY11	RDTE	525.6	511.5	97%	386.2	73%

Figure B-17. MQ-4 Triton Unmanned Aircraft System

MQ-8 Fire Scout Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle

- Reductions attributable to under-execution: FY2015 Program/Budget Review (amount not known)
- Causes of Under Execution
 - Requirements to support Special Operations Command (SOCOM) operational deployments
- Impact of reductions: None
- Lessons learned & Best Practices: None
- Observations:
 - Deployed on frigates (which are retiring by FY15)
 - After LRIP, procurement will stop until Littoral Combat Ship deployments catch up
 - Air vehicle changing from Sikorsky/Schweitzer 333 to larger Bell 407
 - Original Navy program transferred to Army to support Future Combat Systems; with its cancellation, came back to Navy including 10 airframes; uses Marine Corps Advanced Precision Kill Weapon System
- Contracting issues (apply to both MQ-8 and MQ-4)
 - Problems hiring entry-level contracting personnel (Mechanicsburg intern program discontinued). Vet-preference hiring seldom works (veterans are too senior—don't want to move to Patuxent River)
 - Don't use alpha contracting; apply the principles on MQ-4
 - Rarely use UCAs—primarily for Joint Urgent Operational Needs (JUONs)
 - Navy discourages hiring retired annuitants, which is regrettable

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	83.8	82.8	99%	43.7	52%
	Proc.	110.4	53.0	48%		
FY12	RDTE	110.0	95.6	87%	46.6	42%
	Proc.	192.0	80.6	42%		
FY11	RDTE	67.0	6.5	10%	2.2	3%
	Proc.	58.7	15.2	26%		

Figure B-18. MQ-8 Fire Scout Vertical Takeoff and Landing Tactical UAV

MQ-9 Reaper Unmanned Aircraft System

- Reductions attributable to under-execution
 - FY2015 Program/Budget Review: -\$46.6M in initial spares (re-phased into FYs 2016-2017)
 - FY2014 Program/Budget Review: R&D: -\$28.9M; Proc: -\$24.4M for initial spares (re-phased into FYs 2015-2016)
- Causes of Under Execution
 - Changes due to Congressional action
 - Changes in requirements
 - Highly concurrent program—R&D, procurement, and fielding all ongoing
 - JUONs (Joint Urgent Operational Needs)
 - Test delay
 - Funds added in FY2014 Program/Budget review were not executable; program office re-phased in FY2015 program/budget cycle
- Impact of reductions: May not be able to synch initial spares procurement to deliveries
- Lessons learned
 - Exceptionally complicated program caused by fluctuating requirements, JUONs and Congressional interference
 - In-depth analysis required to determine best course of action when not executing to goals
- Best Practice: Use of NAVAIR Procurement Management Tool (PMT)

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	130.9	88.6	68%	27.0	21%
	Proc.	943.5	75.5	8%		
FY12	RDTE	107.6	84.5	34%	21.9	20%
	Proc.	844.9	283.6	34%		
FY11	RDTE	136.7	98.8	72%	44.7	33%
	Proc.	873.7	92.8	11%		

Figure B-19. MQ-9 Reaper Unmanned Aircraft System

Navy Multiband Terminals (NMT)

- Reductions attributable to under-execution: None cited
- Causes of Under Execution:
 - Delays in availability of funds
 - Awaiting transfer of Foreign Military Sales (FMS) funds or funds from other agencies
 - Scheduling of ship availability for installations
 - RDT&E contract execution delayed by signing of an Acquisition Decision Memorandum (“bureaucratic delays”—fund were added in an RMD, but there was confusion between OSD and Navy about the purpose) [*Note: RDT&E is funded PE 0303109M*]
 - Congressional staffs have raised questions about ability to execute FY2014 funds
- Impact of reductions: None
- Lessons learned:
 - Early production was included in the development contract, which facilitates execution
 - Beginning with FY2015 funds, a new procurement contract will be required—delayed six months for signing of sole-source justification
 - Delay could lead to a production line break, which the PMO is trying hard to avoid
- Best Practice: A web-based database tool is used to assist in execution
- Observations:
 - “Program is complex”—Difficult to communicate timelines to Congress
 - Time required to coordinate installation schedules and install terminals—a 15-month process
 - Contract with Raytheon in working well—contracting has not been an issue
 - More process requirements are imposed (e.g. “should-cost”) but no more staff authorized to support them
 - “The acquisition system is guilty of trying to regulate common sense”

Navy Multiband Terminals				
	\$M	Funds Available	Obligations	Obligation Rate
FY13 Proc.		156.2	116.0	74%
FY12 Proc.		107.2	59.9	56%
FY11 Proc.		140.2	90.3	64%

Figure B-20. Navy Multiband Terminals

Navy Standard Integrated Personnel System (NSIPS)

- Reductions attributable to under-execution: Yes, but amount not known
- Causes of Under Execution
 - Issues in establishing program requirements
 - Obtaining Defense Business Council/Investment Review Board (IRB) approval
- Impact of reductions: Not known
- Lessons learned:
 - IRB approval process may be overly restrictive (changes over \$1,000 must be approved by the IRB)
 - Can add up to six months
- Best Practice:
 - Align DOD and Navy IRB reviews and with POM reviews to eliminate redundancies, or re-examine implementation rules
 - Recommend DOD attempt to increase thresholds for IRB review (requires changes to law)
 - Use Navy Abbreviated Acquisition Program process (PEO is MDA (Milestone Decision Authority)—for (Information Technology) programs less than \$10 million per year and \$30 million total)
 - Use IDIQ (Indefinite Delivery, Indefinite Quantity) contracts where possible

Command support Equipment					
	\$M	Funds Available	Obligations	Obligation Rate	NSIPS
FY13 Proc.		50.4	25.1	50%	7.5
FY12 Proc.		26.6	13.5	51%	2.3
FY11 Proc.		42.6	31.2	73%	0.0
* Execution data for NSIPS(subprogram) not available					

Information Technology Development					
	\$M	Funds Available	Disburse-ments	Disbursement Rate	BUPERS-IT*
FY13	RDT&E	64.2	7.1	11%	28.1
FY12	RDT&E	28.9	4.6	16%	12.2
FY11	RDT&E	28.0	6.7	24%	-
* Execution data for BUPERS-IT (subprogram) not available; NSIPS funding is within the BUPERS-IT project. (BUPERS-IT—Navy Bureau of Personnel-Information Technology)					

Figure B-21. Navy Standard Integrated Personnel System

Patriot and Medium Extended Air Defense System (MEADS)

- Reductions attributable to under-execution: None known (Congress cut \$120M in R&D in FY13—reason not known)
- Causes of Under Execution
 - Congressional add of \$158M (net) in FY2013 for 60 additional missiles could not be executed within existing contract
 - Received another add of ~\$150M in FY2014 for 30 MSE (Missile Segment Enhancement) missiles; had a “not to exceed” proposal for a total of 86 missiles, but was rejected by the Army Acquisition Executive in January 2014 because of perceived excess profits. Directed change from Firm Fixed Price to Fixed Price Incentive Fee contract. New contract now under negotiation is expected to result in a higher unit cost.
- Observations:
 - Program executes about \$4 billion per year in contracts—about half for FMS. FMS for 11 countries has a substantial impact on workload
 - Age of workforce in the PMO is a concern
 - Used UCA to expedite fielding of MSE missiles

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY13	RDTE	455.9	417.3	92%	334.6	73%
	Proc.	1017.5	557.1	55%		
FY12	RDTE	463.7	399.2	86%	336.8	73%
	Proc.	730.9	561.6	77%		
FY11	RDTE	575.6	486.8	85%	426.6	74%
	Proc.	685.3	465.1	68%		

Figure B-22. Patriot and Medium Extended Air Defense System

Satellite Communications: Mobile User Objective System (MUOS)

- Reductions attributable to under-execution: None (OSD allowed funds to be retained and executed late)
- Causes of Under Execution
 - Revised cost estimates and funding profile mismatched with program needs
 - Delays in construction of ground station in Italy attributed to protests at construction site
 - Navy depends on Air Force for satellite launches, which must be funded in advance
- Lessons learned:
 - DFAS doesn't accurately reflect disbursements—program office has to provide billing statements to correct DFAS data
- Observations:
 - Causes of inaccuracies in DFAS data need to be addressed
 - OSD benchmarks require interpretation when applied to satellite programs' unique timelines

Satellite Communications (SATCOM) (PE 0303109N) (includes EHF SATCOM Terminals; FLTSATCOM; and MUOS)									
	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate	MUOS	EHF SATCOM	FLEETSATCOM
FY13	RDT&E	179	161.2	90%	47	26%	141.2	28.1	9.7
FY12	RDT&E	258.8	230.9	89%	118.6	46%	243.9	11.1	3.8
FY11	RDT&E	410	379.3	93%	231.1	56%	391.4	13.9	4.8
* Execution data for subprograms not available									
EHF--Extremely High Frequency									

Figure B-23. Mobile User Objective System

Warfighter Information Network-Tactical (WIN-T)

- Reductions attributable to under-execution: \$200M FY2015 reduction in procurement (by Army)
- Causes of under execution:
 - Milestone C for WIN-T Increment 2 February 2010, full-rate production decision scheduled for September 2012
 - Increment 2 failed IOT&E (Initial Operational Test and Evaluation)
 - September 2012 ADM provided only additional Low-Rate Initial Production (LRIP) quantities, pending completion of follow-on IOT&E
 - September 2013 ADM again only authorized LRIP quantities
 - The September decision points are driven by the scheduling of the Army Network Integration (ANI) events
- Impact of reductions: Uncertain until way ahead is determined
- Lessons learned:
 - Tying schedule to events external to the program (e.g., ANI) can negatively impact execution
 - Although giving back excess funds sounds attractive, in practice it may prove difficult
- Observations
 - Program tried to give up \$335 million of FY2012 procurement funds on a reprogramming action, but Congress denied \$200 million of the offer
 - \$80 million rescinded by Congress in FY2013
 - Way ahead currently under discussion

	\$M	Funds Available	Obligations	Obligation Rate	Disbursements	Disbursement Rate
FY 13	Proc.	545.1	335.9	62%		
	RDT&E	161.5	68.2	42%	28.3	18%
FY 12	Proc.	811.1	377.8	47%		
	RDT&E	177.1	136.6	77%	81.2	45%
FY 11	Proc.	467.2	237.8	51%		
	RDT&E	200.7	143.3	71%	82.3	0.41

Figure B-24. Warfighter Information Network-Tactical (WIN-T)

Wheeled Vehicle Protection Kits

- Reductions attributable to under-execution
 - 2012 RMD cut \$23.7M for FY2014
 - Congress reduced FY2014 by \$34M due to schedule slip and funding ahead of need
- Causes of Under Execution
 - In accordance with Better Buying Power goals, Army decided to reverse-engineer current products and compete the procurements as a small-business award
 - Delays in awarding contracts
 - Change in Source Selection Board (SSEB) composition
 - Inexperienced people on SSEB, leading to a risk-averse approach
 - Technical issues on government specifications
 - Evaluation of financial viability of competitors
- Impact of reductions: None
- Lessons learned
 - There should be better planning for SSEBs to include experienced facilitator and consideration of mixing different types of personalities
- Best Practice: None
- Observations:
 - Army Contracting Command decided to make the program a small-business set-aside
 - Pressure from Army Budget Office to execute and concerns about the pace of the contracting process led to an award to the previous sole-source contractor while there was still one year left on the contract, knowing that after the new contract was awarded, there would be a 20% (\$8M) cost reduction. The new contract was awarded 3 months later.

		Funds Available	Obligations	Obligation Rate
FY13	RDTE	69.1	31.8	46%
FY12	RDTE	39.9	1.0	3%
FY11	RDTE	No Entry		

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Appendix E

Abbreviations

ACC	Air Combat Command
ACEIT	Automated Cost Estimating Integrated Tools
AFOTEC	Air Force Operational Test and Evaluation Center
AFSOC	Air Force Special Operations Command
AMPV	Armored Multi-Purpose Vehicle
AO	Acquisition Objective
ARA	Acquisition Resources and Analyses
AT&L	Acquisition, Technology and Logistics
BBP	Better Buying Power
CAPE	Cost Assessment and Program Evaluation
CR	Continuing Resolution
DAU	Defense Acquisition University
DCAA	Defense Contracts Audit Agency
DCAPE	Director, Cost Assessment and Program Evaluation
DCMA	Defense Contract Management Agency
DCMO	Deputy Chief Management Officer
DEAMS	Defense Enterprise Accounting and Management System
DFAS	Defense Financial Accounting Service
DLA	Defense Logistics Agency
DOD	Department of Defense
DOT&E	Director, Operational Test and Evaluation
DPAP	Defense Procurement and Acquisition Policy
ECP	Engineering Change Proposal
EOA	Early Operational Assessment
ER	Extended Range
FAR	Federal Acquisition Regulations
FMS	Foreign Military Sales
FY	Fiscal Year
GFEBBS	General Funds Enterprise Business System
GMLRS	Guided Multiple Launch Rocket System

HIMARS	High Mobility Artillery Rocket System
IAE	Integrated Aircrew Ensemble
HMS	Handheld, Manpack, and Small Form Fit
JTRS	Joint Tactical Radio System
JUONS	Joint Urgent Operational Need Statement
LRIP	Low-Rate Initial Production
MCSC	Marine Corps Systems Command
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MEADS	Medium Extended Air Defense System
NMT	Navy Multiband Terminal
Mod	Modification
MSE	Missile Segment Enhancement
NAVAIR	Naval Air System Command
OA	Operational Assessment
OCO	Overseas Contingency Operations
OSD	Office of the Secretary of Defense
OUSD(C)	Office of the Under Secretary of Defense (Comptroller)
PARCA	Performance Assessment and Root Cause Analysis
PE	Program Element
PEO	Program Executive Office
PMO	Program Management Office
PMT	Procurement Management Tool
POM	Program Objective Memorandum
PPBE	Planning, Programming, Budgeting and Execution
RDT&E	Research, Development, Test and Evaluation
RFP	Request for Proposal
RMD	Resource Management Decision
UCA	Un definitized Contract Action
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology and Logistics
WIN-T	Warfighter Information Network—Tactical
WVPK	Wheeled Vehicle Protection Kit

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14. ABSTRACT This publication examines the causes of under-execution of funds in Department of Defense (DOD) investment programs. It also investigates the institutional responses to instances of under-execution and the effects of those responses on program performance. A previous study conducted by the Defense Acquisition University in 2012 identified several possible causes of under-execution based upon the results of a survey of acquisition and financial managers. The Institute for Defense Analyses (IDA) team constructed a database of first year execution data for DOD investment budget line items from 2006 to 2013. These data show that there has been a consistent downward trend in funds execution rates for procurement obligations since 2006 and Research, Development, Test and Evaluation (RD&E) disbursements since 2009. The research team also interviewed key officials in the Office of the Secretary of Defense, Military Service staffs, program executive offices, and program and contracting offices. These interviews and other supporting data indicate that the current acquisition, financial management, and contracting systems are designed to be flexible. However, program officials report that implementation can be rigid, reflecting overly risk-averse management of the acquisition process. Several best practices are identified and improvements are recommended.					
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