Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations

Volume 3 of 3

January 2019



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SECTION 809 PANEL | *Streamlining & Codifying Acquisition*

January 15, 2019

Publication of *Volume 3* of the *Final Report* marks the culmination of more than 2 years of stakeholder engagement and research aimed at streamlining DoD's acquisition process. In the *Supplement to the Section 809 Panel Interim Report*, published in May 2017, the panel affirmed that meeting the agency mission should be the primary goal of DoD acquisition. Throughout its tenure, the Section 809 Panel has remained committed to ensuring its recommendations, including the 58 featured in *Volume 3*, honor that mission-first spirit, focusing on ways to improve DoD acquisition that support delivering lethality and sustaining technical dominance inside the turn of near-peer competitors and nonstate actors. DoD's acquisition system must recognize the urgency the country faces and adopt a war footing for its acquisition system that will allow DoD to obtain technological superiority and to sustain the technological superiority it delivers to warfighters.

The Section 809 Panel's *Interim Report* recommended modifying or eliminating statutory and regulatory requirements to reduce the burden and improve the functioning of DoD's acquisition system. Congress adopted all of the statutory recommendations made in the *Interim Report* in the FY 2018 NDAA.

Volume 1 of the *Final Report*, released January 31, 2018 introduced a concept called the Dynamic Marketplace and contains recommendations to update the process by which DoD acquires IT systems, streamline DoD's auditing requirements, reduce barriers to entry into the DoD market for small businesses, and redirect DoD's use of small businesses to focus on mission accomplishment. Volume 1 also contains recommendations to update commercial buying processes, clarify the definitions of personal and nonpersonal services, remove statutory requirements for acquisition-related DoD offices, and repeal acquisition-related statutory reporting requirements. Many of these recommendations were included in the FY 2019 NDAA.

Building on the panel's commitment to proposing actionable recommendations, *Volume 2*, published June 28, 2018, contained recommendations addressing the acquisition workforce, commercial source selection, relocating the Cost Accounting Standards (CAS) Board, increasing the thresholds at which CAS would apply to

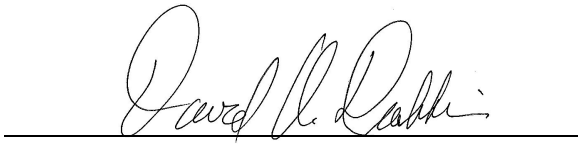
contracts (reducing another barrier to small business participation) and services contracting. *Volume 2* also introduced portfolio management as an approach for addressing the sizable delays and costs caused by the current program-centric acquisition model and continued the discussion of the Dynamic Marketplace concept.

Volume 3, the last installment of the Section 809 Panel's *Final Report*, begins by providing a process for implementing the Dynamic Marketplace. The discussion of the Dynamic Marketplace identifies how a number of recommendations in the prior three volumes help to streamline acquisition in the defense-unique space, but also outlines acquisition of products and services that are readily available and readily available with customization in the public-sector marketplace. The portfolio management approach, first discussed in *Volume 2*, is described in detail in Volume 3 and coupled with specific recommendations for establishing portfolio management, implementing best practices within that framework, as well as aligning requirements management and sustainment operations with the portfolio framework. *Volume 3* continues the work in the previous volumes related to managing the acquisition workforce, streamlining and improving compliance, simplifying procurement, and reorganizing Title 10. It also includes recommendations related to information technology procurement, budget reform, government–industry interactions, data analytics, understanding the complexities of the FAR and DFARS, and creating a center for continuing the Section 809 Panel's acquisition reform efforts.

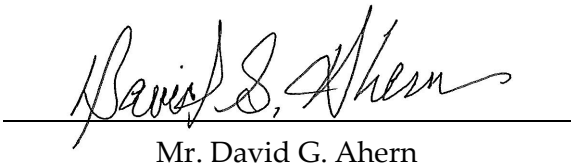
The Section 809 Panel produced a total of 98 recommendations with additional subrecommendations, (five as part of its *Interim Report* and 93 spread across *Volumes 1*, *2*, and *3* of the *Final Report*). Without support provided by Congress, DoD, the DoD acquisition community, and industry, the Section 809 Panel could not have produced more than 1,000 pages of recommendation text and an additional 1,000-plus pages of statutory and regulatory solutions for implementing the panel's recommendations. Because of the many individuals who spoke at panel meetings, participated in interviews and engagement events, facilitated opportunities for site visits, offered recommendations and suggestions, and provided peer review, the Section 809 Panel's body of work truly represents a collective effort from across the acquisition community. A broad and diverse collection of acquisition team members have been key in shaping the panel's recommendations, which are aimed at more quickly and cost-effectively delivering lethality, obtaining technical dominance, and sustaining technical dominance inside the turn of near-peer competitors and nonstate actors.

SECTION 809 PANEL

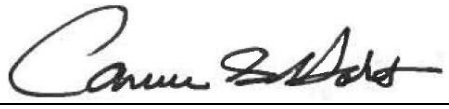
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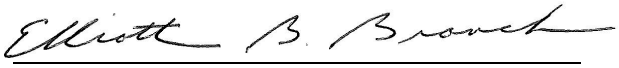
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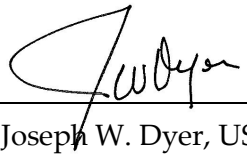
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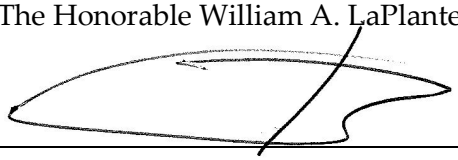
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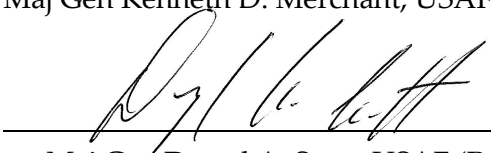
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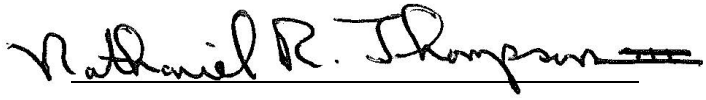
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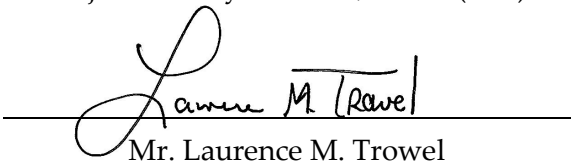
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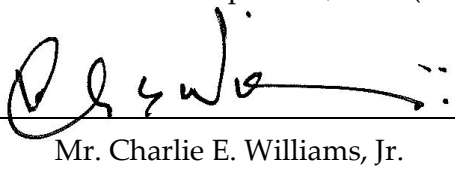
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FPDS: The Federal Procurement Data System—Next Generation is the primary source for DoD prime contract award data. FPDS is the source for much of the data cited in this report.

> FPDS is a living database, updated in real time. For this reason, the same query will produce different results when run at different points in time. In accordance with FAR Subpart 4.604(c), DoD submits an annual certification within 120 days of the end of the fiscal year, which serves as an official statement of FPDS-recorded contract procurement for that year. The underlying data, however, continues to change.
>
> Charts, tables, and calculations in this report are cited with date of data extraction. Because these data extractions occurred at various times over the course of 809 Panel research, officially certified DoD data may differ slightly from the data in this report.

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Executive Summary

Volume 3 of the Final Report represents the culmination of more than 2 years of collective brainstorming, engagement, and intense research about how to change defense acquisition from an outdated, industrial-era bureaucracy to a more streamlined, agile system able to evolve in sync with the speed of technology innovation. The Section 809 Panel has recommended both evolutionary and revolutionary changes. The panel's recommendations, in part, will allow DoD to make purchases in a manner similar to the way private-sector businesses do—which is difficult, and in some cases impossible under the current acquisition system. If implemented, these recommendations would reduce barriers that deny DoD timely access to innovative technology and creative solutions from nontraditional companies and bridge the technical superiority gap that is beginning to develop today between the United States and near-peer competitors and nonstate actors.

To defend against potential enemies, DoD must move to a war footing approach for acquiring and delivering capabilities to ensure warfighters have the tools they need. The DoD acquisition system's ability to meet threats that exist today is questionable. DoD lacks flexibility the nation's near-peer competitors have, limiting its ability to field innovative solutions before potential adversaries do. In deliberating its recommendations, the Section 809 Panel considered ways in which DoD still uses Cold War-era approaches while operating in a cyber-war-era society.

The 58 recommendations (and associated subrecommendations) in this volume add to the 35 recommendations (and associated subrecommendations) released in *Volumes 1* and *2 of the Final Report* and the five recommendations put forth in the *Supplement to the Section 809 Panel Interim Report*.

It has been no small task to tackle the formidable challenges facing the United States as it strategizes how best to defend its citizens and interests when the pace of technological change dramatically affects the nature of the threats the nation faces and the capabilities at its disposal. Ultimately, the Section 809 Panel aimed to make recommendations that allow DoD to deliver and sustain technologically superior capability inside the turn of near-peer competitors and nonstate actors.

SECTION 1: MARKETPLACE FRAMEWORK

Operating in a complex security environment with rapidly changing technology, the defense acquisition system must deliver a wide variety of warfighting and combat support capabilities as efficiently as possible. Not all capabilities are acquired in the same way, and DoD must adjust its acquisition processes to meet the demands of the diverse markets in which it operates. The *Volume 1 Report* introduced a framework for optimizing how DoD operates across this dynamic marketplace. The *Volume 2 Report* further refined the Dynamic Marketplace Framework into three capability lanes and introduced the Section 809 Panel plan to develop the framework's concepts into procedures and policy recommendations. DoD must be able to rapidly buy cutting-edge innovation for warfighters to use in addressing emerging threats.

The Dynamic Marketplace Framework is shaped by dividing what DoD buys into three categories. *Defense-unique development* includes DoD-financed development, either to repurpose a readily available product or solution or to develop a new product or solution, to deliver a defense-unique capability. *Readily available* includes any product or service that requires no customization by the vendor and can be ordered directly by customers, to include products and services that only governments buy. *Readily available with customization* includes products and services that are sold in the private sector for which customization, consistent with what is offered to existing private-sector customers, is necessary to meet DoD's needs.

As set forth in the *Volume 1* and *Volume 2 Reports*, reform is required for all three market segments in the Dynamic Marketplace Framework. Many of the recommendations in the preceding volumes, as well as in *Volume 3*, address issues related to defense-unique acquisition, as outlined in Section 1. For those items that can be purchased without development on DoD's part, Section 1 puts forth a plan for purchasing products and services that are readily available and readily available with customization. This approach will facilitate acquiring the most up-to-date products and services in the least amount of time possible from the open, accessible marketplace, including nontraditional and other private-sector suppliers.

- **Rec. 35:** Replace commercial buying and the existing simplified acquisition procedures and thresholds with simplified readily available procedures for procuring readily available products and services and readily available products and services with customization.

SECTION 2: PORTFOLIO MANAGEMENT FRAMEWORK

Portfolio management is a disciplined process that helps organizations optimize investments by prioritizing needs and allocating resources. Through portfolio management, all of an organization's product investments are addressed at an enterprise level, rather than as independent and unrelated projects or activities. In a threat environment that is increasingly dynamic and complex, defense

acquisition must deliver capabilities in an equally dynamic and effective way, and moving from a program-centric model to a portfolio-based model would meet this objective. DoD has previously struggled to adopt and implement the best practices of portfolio management. The main challenges to DoD transitioning to portfolio management include a fragmented governance structure, a lack of sustained leadership and policy, and a perceived lack of decision-making authority delegated to the appropriate level.[1]

Section 2 addresses all three of these challenges in its recommendations to establish an enterprise portfolio execution framework first introduced in the *Volume 2 Report*. The recommendations in this section offer a comprehensive, robust solution set for DoD portfolio management, expanding on portfolio best practices outlined by the Government Accountability Office (GAO). Section 2 provides specific recommendations related to a portfolio management framework at the enterprise and execution levels, including portfolio best practices. It also addresses a portfolio view for requirements and professionalizing the requirements management (RM) workforce, as well as establishing a sustainment program baseline and addressing issues related to sustainment funding.

- **Rec. 36:** Transition from a program-centric execution model to a portfolio execution model.
- **Rec. 37:** Implement a defensewide capability portfolio framework that provides an enterprise view of existing and planned capability, to ensure delivery of integrated and innovative solutions to meet strategic objectives.
- **Rec. 38:** Implement best practices for portfolio management.
- **Rec. 39:** Leverage a portfolio structure for requirements.
- **Rec. 40:** Professionalize the requirements management workforce.
- **Rec. 41:** Establish a sustainment program baseline, implement key enablers of sustainment, elevate sustainment to equal standing with development and procurement, and improve the defense materiel enterprise focus on weapon system readiness.
- **Rec. 42:** Reduce budgetary uncertainty, increase funding flexibility, and enhance the ability to effectively execute sustainment plans and address emergent sustainment requirements.

SECTION 3: IT PROCUREMENT

Due to the limited interaction between commercial and DoD information technology (IT) markets, the two now operate at substantially different paces of technological advancement. Because the commercial IT market has outpaced the DoD market for decades, DoD regularly acquires outdated and inferior technology, often at higher prices and slower rates. DoD's slower acquisition pace has a direct effect on warfighting capability in a defense era defined by technological edge. Warfighters, and their support commands, are often operating with less functionality and at higher operating costs. This market

[1] GAO, *Weapon System Acquisitions: Opportunities Exist to Improve the DOD's Portfolio Management, GAO-15-466,* August 2015, Highlights, accessed November 26, 2018, https://www.gao.gov/assets/680/672205.pdf.

segregation is caused by the vastly different way in which DoD and the wider federal government acquire IT. Rather than operating in the private-sector market of readily available options, DoD often creates detailed, intricate and unique requirements for its IT systems and services.

DoD must acknowledge its acquisition system suffers from processes and procedures that are obsolete, redundant, or unnecessary and work to move quickly enough to keep pace with private-sector innovation. The recommendations in Section 3 offer strategies for transforming DoD's IT acquisition from both the top down and bottom up. Strategic revisions to how DoD understands and acquires IT are integrated with smaller-scale changes that restore efficiency to routine processes that have become bogged down by layers of bureaucracy. None of the actions recommended in Section 3 alone will solve the challenges associated with IT market segregation; however, together they offer a series of changes that can better align DoD acquisition with private-sector practices. Allowing DoD to buy in a manner similar to private-sector companies will reduce barriers to sellers in the marketplace.

- **Rec. 43:** Revise acquisition regulations to enable more flexible and effective procurement of consumption-based solutions.
- **Rec. 44:** Exempt DoD from Clinger–Cohen Act Provisions in Title 40.
- **Rec. 45:** Create a pilot program for contracting directly with information technology consultants through an online talent marketplace.

SECTION 4: BUDGET

In a very real sense, DoD must move to a *war footing* to maintain technological dominance—competitors already have—yet the budget-related issues described in Section 4 hamper efforts in that regard. Delivering capability to warfighters depends on integration of the budgeting process and authorization and appropriation of funds. The ongoing unreliable availability of new-start funding from fiscal year to fiscal year puts DoD's mission at risk. Secretaries of Defense perennially identify this unreliability as the biggest risk to the nation's defense. Current rules limit the flexibility of DoD's acquisition workforce in dealing with the realities of the marketplace such that near-peer competitors and nonstate actors have a decided innovation advantage.

Section 4 contains recommendations intended to reduce inefficiency and dysfunction in the defense acquisition system's budget formulation and appropriations processes; however, the section does not include specific reforms to the planning, programming, or budget formulation processes. Instead, overarching goals of these recommendations include empowering DoD managers to reallocate resources between programs as needed; flowing down decision authority to the lowest possible levels; eliminating or mitigating some of the perverse incentives that exist in fiscal law; and mitigating the harmful effects of late funding on DoD acquisition programs.

- **Rec. 46:** Empower the acquisition community by delegating below threshold reprogramming decision authority to portfolio acquisition executives.
- **Rec. 47:** Restore reprogramming dollar thresholds to match their previous levels relative to inflation and the DoD budget.

- **Rec. 48:** Increase to 50 percent *the lesser of 20 percent* restriction that creates artificially low reprogramming thresholds for smaller programs.
- **Rec. 49:** Provide increased flexibility to the time periods within which contract obligations are permitted to occur.
- **Rec. 50:** Enact regular appropriations bills on time.
- **Rec. 51:** Mitigate the negative effect of continuing resolutions by allowing congressional regular appropriations to remain available for a standardized duration from date of enactment.
- **Rec. 52:** Permit the initiation of all new starts, provided Congress has appropriated sufficient funding.
- **Rec. 53:** Permit the initiation of all production rate increases, provided Congress has appropriated sufficient funding.
- **Rec. 54:** Permit the initiation of multiyear procurements under a CR.
- **Rec. 55:** Raise the Prompt Payment Act threshold.
- **Rec. 56:** Use authority in Section 1077 of the FY 2018 NDAA to establish a revolving fund for information technology modernization projects and explore the feasibility of using revolving funds for other money-saving investments.
- **Rec. 57:** Modify fiscal law to extend the duration of when funds cancel from 5 years to 8 years in expired status to align program acquisitions with funding periods and prevent putting current funds at risk and to support meeting appropriation intent.
- **Rec. 58:** Address the issue of over-age contracts through (a) establishing an end-to-end, integrated, streamlined process, (b) codifying DCMA's Quick Close Out class deviation in the DFARS, and (c) extending DCMA's Low Risk Quick Close Out initiative by 2 years.

SECTION 5: ACQUISITION WORKFORCE

As the rapid transformation of the defense acquisition system continues, DoD will require a professional, talented, experienced, flexible, and broad-minded workforce to succeed on warfighters' behalf. Career management is a critical element for the acquisition workforce (AWF), and the recommendations in Section 5 concentrate on workforce development issues. In this chapter, the Section 809 Panel proposes a series of changes to DoD's career development framework for AWF members.

The recommendations in Section 5 revolve around three crucial aspects of career development: qualifications as opposed to certifications, career paths for all acquisition career fields with a competency model for the entire workforce, and public–private exchange programs (PPEPs). The current three-level certification system, established by DoD 3 decades ago, leads to early-career workforce members who are *certified*, but not necessarily *qualified*. This system lacks clear-cut career

paths and a competency model to help workforce members identify a clear career trajectory and then gain the right skills to navigate that path. Additionally, the system lacks successful opportunities for public–private exchange programs that could help acquisition leaders enhance their knowledge. Addressing these shortcomings will ultimately lead to a workforce that is better equipped to navigate the global macro-business environment and embolden appropriate risk-taking skills.

- **Rec. 59:** Revise the Defense Acquisition Workforce Improvement Act to focus more on building professional qualifications.
- **Rec. 60:** Implement acquisition career paths that are integrated with an institutionalized competency model tailored to mission needs.
- **Rec. 61:** Create a comprehensive public–private exchange program for DoD's acquisition workforce.

SECTION 6: STREAMLINING AND IMPROVING COMPLIANCE

DoD is not a typical private-sector buyer; complying with its many layers of requirements is burdensome for both DoD and contractors. Federal procurement law, federal acquisition regulations, and DoD's internal regulations combine to create a labyrinth of challenges to the acquisition workforce, in both the public and private sectors. The recommendations in Section 6 acknowledge that DoD's processes and procedures are outdated, creating barriers to entry for prospective industry partners and that a compliance-driven culture needs to be recalibrated to address the body of laws and regulations in a more efficient way.

Section 6 addresses a variety of topics under the compliance umbrella. Included among these topics are subcontracting clauses that are flowed down from prime contractors to their suppliers, socioeconomic policy objectives unrelated to contract requirements, bid protests, the Inventory of Contracted Service, and adapting to commercial financial auditing practices. Making changes in these areas would alleviate some of the unnecessary burdens of the current compliance requirements, reduce the barriers to doing business with DoD, reduce the lengthy bid protest process, and optimize the auditing process.

- **Rec. 62:** Update the FAR and DFARS to reduce burdens on DoD's commercial supply chain to decrease cost, prevent delays, remove barriers, and encourage innovation available to the Military Services.
- **Rec. 63:** Create a policy of mitigating supply chain and performance risk through requirements documents.
- **Rec. 64:** Update socioeconomic laws to encourage purchasing from nontraditional suppliers by (a) adopting exceptions for DoD to domestic purchasing preference requirements for commercial products, and (b) adopting a public interest exception and procedures for the Berry Amendment identical to the ones that exist for the Buy American Act.
- **Rec. 65:** Increase the acquisition thresholds of the Davis–Bacon Act, the Walsh–Healey Public Contracts Act, and the Services Contract Act to $2 million.

- **Rec. 66:** Establish a purpose statement for bid protests in the procurement system to help guide adjudicative bodies in resolving protests consistent with said purpose and establish a standard by which the effectiveness of protests may be measured.
- **Rec. 67:** Reduce potential bid protest processing time by eliminating the opportunity to file a protest with the COFC after filing at the GAO and require the COFC to issue a decision within 100 days of ordering a procurement be delayed.
- **Rec. 68:** Limit the jurisdiction of GAO and COFC to only those protests of procurements with a value that exceeds, or are expected to exceed, $75,000.
- **Rec. 69:** Provide as part of a debriefing, in all procurements where a debriefing is required, a redacted source selection decision document and the technical evaluation of the vendor receiving the debriefing.
- **Rec. 70:** Authorize DoD to develop a replacement approach to the inventory of contracted services requirement under 10 U.S.C. § 2330a.
- **Rec. 71:** Adopt the professional practice guide to support the contract audit practice of DoD and the independent public accountants DoD may use to meet its contract audit needs, and direct DoD to establish a working group to maintain and update the guide.
- **Rec. 72:** Replace 18 system criteria from DFARS 252.242-7006, Accounting System Administration, with an internal control audit to assess the adequacy of contractors' accounting systems based on seven system criteria.
- **Rec. 73:** Revise the definition of business system deficiencies to more closely align with generally accepted auditing standards.

SECTION 7: SIMPLIFYING PROCUREMENT AND CONTRACTING

The topics addressed in Section 7 vary across the range of defense acquisition practices, yet they all aim to streamline defense acquisition regulations and return time and flexibility to the acquisition workforce. These recommendations undertake streamlining in one of four ways: decluttering excess documentation requirements or procedures; utilizing existing authorities in a more efficient way; removing rigidity; or clarifying definitions. Regulatory decluttering is a constant challenge for DoD; these recommendations take aim at improving some particularly timely and important acquisition issues.

The recommendations in Section 7 address eliminating duplicative or non-value-added documentation requirements, using existing authorities and processes to greatly reduce burden in the field, removing the rigidity of the regulatory system in specific circumstances, allowing energy to be purchased in a manner more consistent with the private sector, encouraging use of advanced payments to finance small business contracts, modernizing the Armed Services Board of Contract Appeals, and clarifying regulations related to commercial preference and use of Other Transaction authority. These regulatory adjustments have the potential to reverberate across DoD and to deliver great efficiencies to the acquisition workforce.

- **Rec. 74:** Eliminate redundant documentation requirements or superfluous approvals when appropriate consideration is given and documented as part of acquisition planning.
- **Rec. 75:** Revise regulations, instructions, or directives to eliminate non-value-added documentation or approvals.
- **Rec. 76:** Revise the fair opportunity procedures and require their use in task and delivery order competitions.
- **Rec. 77:** Require role-based planning to prevent unnecessary application of security clearance and investigation requirements to contracts.
- **Rec. 78:** Include the supply of basic energy as an exemption under FAR 5.202.
- **Rec. 79:** Enable enhanced use of advanced payments, at time of contract award, to small businesses.
- **Rec. 80:** Preserve the preference for procuring commercial products and services when considering small business set-asides.
- **Rec. 81:** Clarify and expand the authority to use Other Transaction agreements for production.
- **Rec. 82:** Provide Armed Services Board of Contract Appeals authority to require filing of contract appeals through an electronic case management system.
- **Rec. 83:** Raise the monetary threshold to provide agency boards of contract appeals accelerated, small business, and small claims (expedited) procedures to $250,000 and $150,000 respectively.

SECTION 8: GOVERNMENT-INDUSTRY INTERACTIONS

Communication is key to harnessing private-sector technology in a complex regulatory environment. For DoD to regain strategic overmatch and achieve goals set out in the National Defense Strategy, Congress must mandate that the defense acquisition workforce and the private sector improve the way in which they exchange information and communicate needs. Without appropriate communications with industry, warfighters are likely to receive more costly, less advanced equipment later than desired. A culture of open communication would allow the entire acquisition workforce to identify innovative capabilities, share best practices, learn from mistakes, and align missions among buyers and sellers in the marketplace. Such a culture would also allow the federal government and its contractors to better understand each other's needs, constraints, and areas for confluence all focused on delivering capability to warfighters inside the turn of DoD's near-peer competitors.

Section 8 focuses on DoD's communication with contractors and potential contractors. In many cases, the FAR and other regulations allow for more interaction with industry than is common practice. The following recommendations offer specific ways in which DoD can better communicate with industry. The recommendations in Section 8 work together in an effort to foster behavior that values interaction

with industry and reduces fear of missteps and risk-taking normally associated with interacting with marketplace.

- **Rec. 84:** Direct DoD to communicate with the marketplace concerning acquisition from development of the need/requirement through contract closeout, final payment, and disposal.
- **Rec. 85:** Establish a Market Liaison at each procuring activity to facilitate communication with industry.
- **Rec. 86:** Encourage greater interaction with industry during market research.
- **Rec. 87:** Establish a market intelligence capability throughout DoD to facilitate communication that enhances the government's industry knowledge through open, two way communication.

SECTION 9: ACQUISTION DATA

For several decades, DoD has worked to more effectively use enterprise acquisition and financial data in forming decisions. This process involves enormous technical complexity, and requires institutional improvements to accompany any IT upgrades. DoD does not lack this type of data, but rather lacks the full capacity and capability to use information systems to access data and provide for standardized data architectures. The recommendations in Section 9 aim to address these inadequacies.

- **Rec. 88:** Use existing defense business system open-data requirements to improve strategic decision making on acquisition and workforce issues.
- **Rec. 89:** Direct DoD to consolidate or eliminate competing data architectures within the defense acquisition and financial system.

SECTION 10: TITLE 10 REORGANIZATION

The acquisition-related statutory provisions that apply to the rest of the federal government were recently recodified in Title 41. No similar effort has been made with regard to Title 10, where the organization of the acquisition-related statutory provisions has become problematic. Reorganizing defense acquisition statutes into a cohesive structure provides a long-term benefit to the acquisition community and those companies doing business with DoD or seeking to enter the DoD marketplace. Section 10 addresses the need to reorganize Title 10, so it is easier to locate key acquisition statutes, many of which are currently hidden within note sections of the code.

- **Rec. 90:** Reorganize Title 10 of the U.S. Code to place all of the acquisition provisions in a single part, and update and move acquisition-related note sections into the reorganized acquisition part of Title 10.

SECTION 11: FAR REFERENCE DOCUMENT

The FAR and DFARS provide the primary regulatory framework by which the federal government and DoD respectively contract for supplies and services and implement pertinent statutes, policies, and Executive Orders (EOs). It is difficult to effectively navigate and understand the regulations, which prevents acquisition personnel from leveraging the flexibilities, methods, and authorities available to

maximize speed in the acquisition process and encourage innovation, competition, and investment by the private sector. Section 11 highlights the problems with navigating FAR and DFARS requirements and recommends a resource that would make researching related statutes, policies, EOs and FRNs easier for government and private-sector acquisition team members.

- **Rec. 91:** Require the Administrator of General Services and the Secretary of Defense to maintain the FAR and DFARS respectively, as electronic documents with references to the related statutes, Executive Orders, regulations, and policies, and with hyperlinks to Federal Register Notices.

SECTION 12: MINIMIZE FLOWDOWN OF GOVERNMENT-UNIQUE TERMS IN COMMERCIAL BUYING

Currently the FAR and DAR Councils hold the authority to determine if procurement-related statutes, Executive Orders (EOs), or regulation should apply to commercial buying. Recently, Congress has mandated that the councils conduct comprehensive reviews of all the procurement-related statutes, EOs, and regulations and determine which government-unique terms should flow down to the acquisition of commercial products and services. The FAR and DAR Councils have proven constrained in their ability to reduce the number of government-unique terms required to flow down. Section 12 reiterates the need for Congress to take the lead in minimizing the government-unique terms applicable to commercial buying, which was first addressed in Recommendation 2.

- **Rec. 92:** Minimize the flowdown of government-unique terms in commercial buying by implementing the Section 809 Panel's Recommendation 2.

SECTION 13: CENTER FOR ACQUISITION INNOVATION

Pursuant to its congressional authorization, the Section 809 Panel will complete its work and cease to exist on July 15, 2019. The need to identify challenges associated with the DoD acquisition system will continue to exist, as will the need to propose policy alternatives for addressing those challenges. The need exists to maintain the Section 809 Panel's records for future research and to create a center for acquisition policy research that continues the work of reforming DoD acquisition. Section 13 addresses these issues.

- **Rec. 93:** Create a Center for Acquisition Innovation located at the National Defense University, Eisenhower School.



Introduction

Volume 3 of the Final Report represents the culmination of more than 2 years of collective brainstorming, engagement, and intense research about how to move defense acquisition from an outdated, industrial-era bureaucracy to a more streamlined, agile system able to evolve in sync with the information age. The Section 809 Panel heard from multiple sources that DoD's acquisition system lacks a sense of urgency. DoD must put its acquisition system on a *war footing* to meet the threat represented by near-peer competitors and nonstate actors. The panel provides recommendations which, if adopted, will make both evolutionary changes to the current system and revolutionary changes that will reshape the acquisition system, reducing barriers to entry for companies with innovative products and services by adopting processes more akin to those used in the private sector. The 58 recommendations (and associated subrecommendations) in this volume add to the 35 recommendations (and associated subrecommendations) proposed in *Volumes 1 and 2 of the Final Report* and the five recommendations proposed in the *Supplement to the Section 809 Panel Interim Report*. Tackling the formidable challenges facing DoD as it strategizes how best to defend the nation's citizens and interests when faced with the dramatic pace of technological change, the nature of the threats the nation faces, and the capabilities gap in its arsenal has been no small task.

Numerous challenges mire the current acquisition system. Today's system, built on industrial-age principles, is not responsive to 21st century market practices and serves as a barrier to both DoD's ability to reach innovative companies and the ability of innovative companies to reach into DoD. No clear points of entry or effective outreach programs exist. DoD acquisition operates within a stove-piped management structure that values strict adherence to processes and procedures over meeting the

mission. The system fails to value time, yet potential U.S. adversaries lack the many constraints with which DoD contends and are able to access innovative technology as it becomes available in the marketplace. The system's process orientation is often characterized by demands to satisfy non-value-added activities that detract from meeting more vital defense acquisition requirements. Despite congressional encouragement and support of purchasing as many products and services as possible from the marketplace, the acquisition team often interprets statutes and regulations narrowly to avoid oversight criticism, forgoing use of more flexible approaches to buying even when they would save time and money. All too often, DoD is buying yesterday's technology for delivery tomorrow at inflated prices, rather than buying tomorrow's technology for delivery today at competitive market prices.

New statutes and regulations can help this situation, but more important to meeting DoD's mission is recruiting, training, and retaining an acquisition workforce that is skilled in operating not just within a narrow comfort zone, but within the full margins of its broad statutory authorities, an acquisition workforce that can use the FAR to its broadest interpretation and greatest efficiency. To promote a culture that values taking risks, rather than preserving antiquated but safe approaches, DoD must recruit, train, and retain a quality workforce and provide it with appropriate training and qualifications. Addressing these and other challenges is fundamental to providing warfighters the capabilities needed to achieve DoD's mission.

Mission—delivering lethality to warfighters quickly enough to stay inside the turn of near-peer competitors and nonstate actors—must be DoD's top priority. The Section 809 Panel has remained dedicated to imagining a defense acquisition system that puts mission first and values time. To that end, the panel has engaged with hundreds of stakeholders from both the public and private sectors. In doing so, it has become clear that the greatest resource for building and maintaining an acquisition system that will serve current and future needs is the people who make up the acquisition team. The acquisition team comprises more than program managers and contracting officers; it includes many different disciplines and includes both the public and private sector. Among its recommendations, the Section 809 Panel has strived to capitalize on DoD's most valuable resource, human capital, as part of an integrated strategy for DoD to achieve its fundamental mission.

The panel's recommendations acknowledge the need to enable acquisition workforce members, to trust them to do what needs to be done, and to support them to innovate. The Section 809 Panel recognizes that the workforce will be at the heart of all meaningful change, just as it has been at the heart of the panel's research and recommendations for the last 2-plus years. The experiences and opinions shared by the acquisition workforce have aided the panel in formulating recommendations that it anticipates will make the acquisition team's work more rewarding and DoD's mission more easily attainable.

The Section 809 Panel's collective recommendations work together to change the overall structure and operations of defense acquisition both strategically and tactically. Some changes hold potential for immediate effect, such as those that remove unnecessary layers of approval in the many steps contracting officers and program managers must take and remove unnecessary and redundant reporting requirements. Other changes require a large shift in how the system operates, such as buying readily available products and services in a manner similar to the private sector and managing capabilities from a portfolio, rather than program, perspective. Such an array of proposed

improvements offers short-term gains that will help inspire enthusiasm and a commitment to achieving the long-term systemic changes proposed by the panel.

Volume 3 begins with a final installment regarding what the Section 809 Panel has named the Dynamic Defense Marketplace. As discussed in *Volumes 1* and *2*, the preference for commercial buying has become far too complicated. Guidance in the FAR meant to assist government in making simple transactions in a manner similar to the private sector has turned into yet another series of bureaucratic hurdles, creating a cottage industry that hinders speed and imposes barriers to new entrants into the DoD market space. In Section 1, the panel recommends a revolutionary option for fundamentally changing that approach, leaving the federal government's overly complex notion of *commercial* in the past. To start fresh, the panel recommends a new term: *readily available*.

Millions of products and services are, in fact, readily available in the marketplace and require no customization to be used by DoD. These transactions, for something like paper, should be simple and quick. A wide array of items exist—even high-dollar items such as computer systems and airplanes—requiring no defense-unique development, and they could conceivably be purchased as readily available or readily available with customization. Congress has given repeated guidance to use these resources without unnecessary complication. Over the years, however, concerns that defense-unique products and services were wrongly being acquired as commercial led to additional processes that ultimately made it harder to acquire private-sector goods and services. In replacing the concept of commercial with that of readily available, the panel provides a guide to what processes, terms, and conditions will apply to this new category of buying. When readily available products and services require modification to meet government standards, as long as that customization, or in some cases manufacturing, is consistent with existing private-sector practices, they will be considered readily available with customization. This change should create opportunities for DoD to access products and services, in particular innovative products and services, not otherwise available.

For those acquisitions that are unique to defense, requiring DoD to develop the product or service in whole or part, the Section 809 Panel does not recommend a new category. Instead, as discussed in Section 2, the panel proposes making changes within the existing system, beginning with a new portfolio management framework that allows empowered decision makers to strategize how best to allocate resources and deliver capabilities from the broad vantage point of a portfolio, rather than the limited perspective of a single program. This portfolio approach follows best practices from the private sector and acknowledges the need for strategic management of the dynamic capabilities that DoD designs, develops, and fields. DoD's military and technological superiority are at risk as adversaries grow increasingly able to exploit private-sector technologies for military purposes at a faster pace than DoD's current systems allow. China, for example, has announced *Made in China 2025*, focused on making China dominant globally in the development of technology. Moving to a portfolio management approach will lead to improved efficiency and readiness. In *Volume 1*, the panel issued a similar recommendation for taking a portfolio approach to the management of defense business systems. Both sets of recommendations provide flexibility to decision makers empowered to view investments with both a short-term and long-term perspective, but most importantly with a focus on the need for speed, without forgetting integrity, competition, and transparency, and delivering lethality to the warfighter.

Section 3 adds another suite of recommendations that will improve the acquisition of information technology (IT), building on those released in Volume 1. This section considers important IT issues related to consumption-based solutions and buying services in a *gig* economy, which DoD must address if it is to obtain and maintain state-of-the-art technology.

Section 4 makes a series of recommendations related to how defense funding is allocated and managed. More flexibility is needed to get maximum efficiency out of the funds Congress appropriates. Key topics addressed by the panel's recommendations include reprogramming of funds, expanding DoD's ability to obligate funds when Congress is unable to adopt an annual appropriations bill in a timely manner, reducing the burden of the Prompt Payment Act on both government and industry, and creating more flexibility related to availability of funds.

Section 5 completes the panel's recommendations for recruiting, training, and retaining the acquisition workforce. The recommendations in *Volume 2* focus primarily on DoD's ability to recruit, train and retain an adequately staffed acquisition workforce. Volume 3 addresses changes to provide needed training pathways to ensure that members of the acquisition workforce receive the right training when they need it. It also recommends creating career pathways that provide a clear picture of how members of the acquisition workforce can advance in their careers and what they will need to do to achieve personal and organizational goals.

Sections 6 and 7 provide a collection of changes that will streamline processes for purchasing those products and services that are developed for DoD and include compliance, procurement, and contracting. Section 6 revisits audit requirements by providing a professional practice guide, which was recommended in Volume 1 and developed by the panel with assistance from the Government Accountability Office, Defense Contract Audit Agency, Defense Contract Management Agency, and industry. The section provides recommendations to implement the professional practice guide and to maintain it in the future. Section 6 also addresses new topics such as application of socioeconomic policies, bid protests, and supply chain issues. Section 7 includes a truly diverse set of recommendations aimed at eliminating requirements that slow the acquisition process and pose barriers to entry into the DoD marketspace.

In Section 8, the panel recommends opening channels of communication between the government and industry, acknowledging that DoD and the private sector have an ongoing relationship that requires attention and ongoing collaboration, not a one-sided relationship. Recognizing that risk aversion and fear of prompting protests have stymied previous attempts to open robust interaction between government and industry, the Section 809 Panel urges Congress to take the lead by directing such communication—authorizing and encouraging communications has not been sufficient to overcome historical barriers.

The discussion of data analytics in Section 9 adds to the conversation about how best to take advantage of the abundance of data generated in a system supported by IT. Potential exists for increased transparency enabled by the extensive data collection that already takes place, reducing the level of oversight currently characterized by multiple layers of reports and approvals. To realize this potential, DoD will need to consolidate or eliminate competing data architectures.

One of the Section 809 Panel's most far-reaching and impactful reforms is the reorganization of Title 10, the section of United States Code devoted to DoD. Section 10 describes the panel's work to date, including those changes already implemented by Congress, and details how the work will conclude in 2019. The effort to reorganize Title 10 will create invaluable ease of use for the entire DoD acquisition team and the marketplace with which DoD does business.

Among the required tasks outlined in the Section 809 Panel's authorizing legislation was reviewing the FAR and DFARS. The panel addressed this task by creating an annotated resource document that traces the origins of each part of the FAR and DFARS back to the statutes, policies, Executive Orders, and Federal Register Notices (FRN) that form their basis. Section 11 explains the meticulous work associated with this genealogy project and recommends that DoD continue the effort to hyperlink to the FRNs and reference the statutory and policy provisions that form the basis of a particular provision for future parts of the FAR/DFARS.

In Section 12 the panel revisits a topic first addressed in Recommendation 2—minimizing flowdown of government-unique terms and conditions for commercial products and services acquisition. Congress has taken some action on this topic in recent NDAAs. This section emphasizes the Section 809 Panel's belief that those actions will not produce the desired results absent further Congressional action. This brief section calls for Congress itself to reduce the flowdown of both existing laws and new laws instead of relying on the Executive Branch to identify which laws should flow down. Minimizing flowdown is too important in terms of its effect on DoD's ability to support warfighters with innovative products and services from the broader marketplace for Congress to defer to the Executive Branch.

As the Section 809 Panel's work comes to a close, Section 13 addresses the question of *what next?* Meaningful acquisition reform will not occur with quick, one-time fixes. Instead, it must be part of an ongoing effort to create sustainable and continuous improvement. That continuous improvement must come from a body capable of objectively examining the system while being guided by the experience of working with the system. Section 13 proposes establishing and authorizing the funding of an innovation center in the National Defense University (NDU) to support such an effort. NDU enjoys academic freedom and provides an environment where both DoD and industry come together with backgrounds in the full spectrum of DoD acquisition.

Since the panel began its work, Congress and DoD have made numerous changes in defense acquisition. *Middle Tier* acquisition has provided a new, more flexible contracting authority. DoD has published its new guidebook on leveraging Other Transaction authorities as a means for making timely acquisitions. The Army stood up its Futures Command to leverage private-sector innovation, cutting-edge science and technology, prototyping, and warfighter feedback as it works to meet its mission to create a more lethal force that wins wars and returns home safely. The Air Force's new innovation hub has been launched to harness research and technology for the military. In the midst of these, and many other manifestations of progress, dozens of the Section 809 Panel recommendations have been addressed in the FY 2018 and FY 2019 NDAAs and have spurred a consistent and challenging dialogue within the stakeholder groups supporting DoD's mission. With adoption of each reform, DoD's ability to meet its mission is enhanced. The energy for improving defense acquisition continues in many

directions, and the Section 809 Panel anticipates its *Final Report* will provide a firm foundation for supporting needed reforms well into the future.

The Section 809 Panel will publish one more document following *Volume 3*. This document will tie the panel's work together from the *Interim Report* through *Volume 3* and provide both Congress and the Secretary of Defense a single picture of how all of the recommendations come together to improve the way DoD acquisition delivers lethality to warfighters inside the turn of near-peer competitors and nonstate actors. The Section 809 Panel recommends the Secretary of Defense wait to draft its required review of the panel's report to Congress until this final volume is published. The panel will publish this document by February 15, 2019.



Section 1
Marketplace Framework

It is time to implement changes that will make DoD's acquisition system function in today's private-sector-driven marketplace and establish a system that meets warfighters' needs in a way that provides agility and values time.

RECOMMENDATION

Rec. 35: Replace commercial buying and the existing simplified acquisition procedures and thresholds with simplified readily available procedures for procuring readily available products and services and readily available products and services with customization.

INTRODUCTION

Operating in a complex security environment with rapidly changing technology, the defense acquisition system must deliver a wide variety of warfighting and combat support capabilities as efficiently as possible. Not all capabilities are acquired in the same way, and DoD must adjust its acquisition processes to meet the demands of the diverse markets in which it operates. The *Volume 1 Report* introduced a framework for optimizing how DoD operates across this dynamic marketplace. The *Volume 2 Report* further refined the Dynamic Marketplace Framework into three capability lanes and introduced the Section 809 Panel plan to develop the framework's concepts into procedures and policy recommendations. The Dynamic Marketplace Framework is shaped by dividing what DoD buys into three categories:

- **Defense-Unique Development:** DoD-financed development, either to repurpose a readily available product or solution or to develop a new product or solution, to provide a defense-unique capability.
- **Readily Available:** Any product or service that requires no customization by the vendor and can be ordered directly by customers, to include products and services that only governments buy.
- **Readily Available with Customization:** Includes the products and services that are sold in the private sector, including to other public-sector customers, for which customization or manufacturing that is consistent with existing private-sector practices is necessary to meet DoD's needs.

As discussed in the *Volume 1* and *Volume 2 Reports,* these three categories of products and services are loosely based on the defense industry segments described by the Center for New American Security's (CNAS's) *Future Foundry* report.[1] These categories also closely align with the product categories developed by the Government Accountability Office (GAO) to better analyze DoD procurements.[2]

The current defense acquisition system was built for a 20th century defense-industrial market. It is best suited for developing and procuring conventional products to be used in defined missions against known adversaries. This system has focused on mitigating risk through contract compliance, which has resulted in high barriers to entry and a limited number of traditional suppliers. Increased need to leverage the growing off-the-shelf capability options and expanding private-sector innovation has illuminated two important facts:

- DoD must be an attractive business partner to a variety of suppliers, many of which are nontraditional and not accustomed to working with federal rules and procedures.

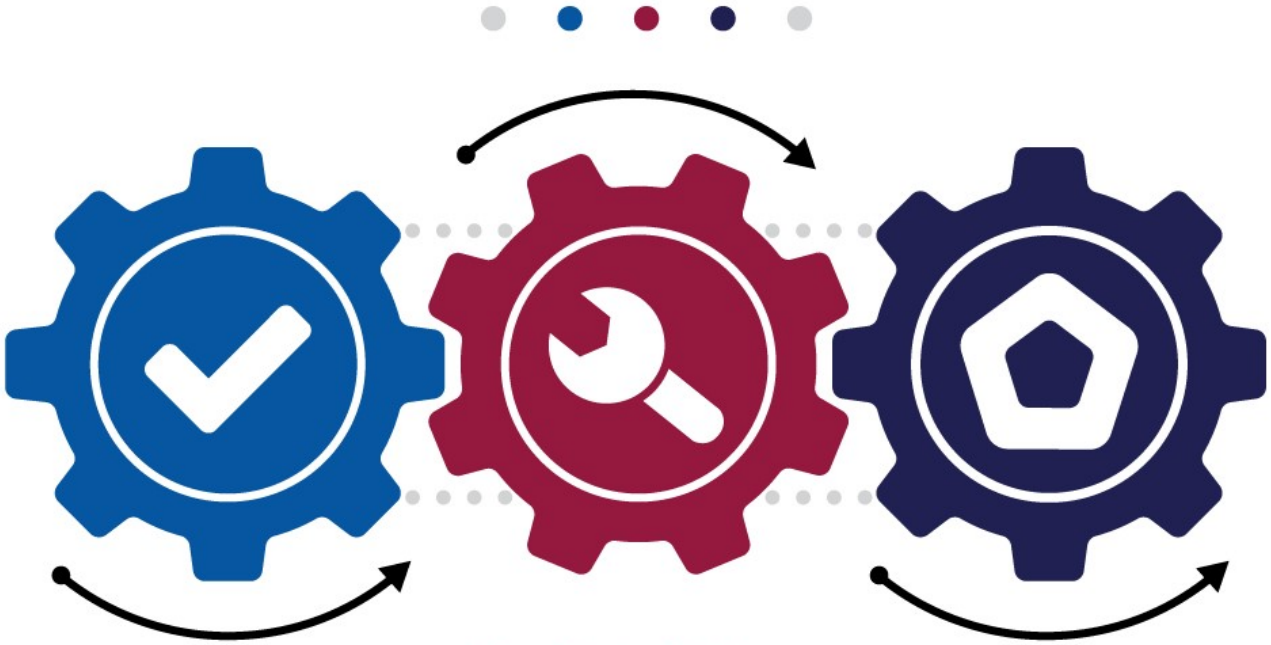
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[1] Ben FitzGerald, Alexandra Sander, and Jacqueline Parziale, *Future Foundry: A New Strategic Approach to Military-Technical Advantage, Center for New American Security,* December 2016, 23, accessed October 12, 2018, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-FutureFoundry-final.pdf?mtime=20161213162640.
[2] GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, 4, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.

- DoD must be able to adjust its behaviors according to the market in which it is operating—an expanded dynamic marketplace in which DoD's relative importance and its ability to dictate the parameters and pace of business transactions can be minimal.

As set forth in the *Volume 1* and *Volume 2 Reports*, reform is required for all three market segments in the Dynamic Marketplace Framework. Recommendations that address the defense-unique market focus on incrementally improving the current acquisition system, for which DoD is still the largest (or only) player. Recommendations that address the markets where items are readily available focus on overhauling the way in which DoD conducts business with nontraditional and other private-sector suppliers. Overall, the Section 809 Panel's recommendations work to ensure DoD can effectively acquire a wide variety of warfighting and combat support capabilities with the most appropriate procedures for each market.

Figure 1-1. Dynamic Marketplace Framework



Readily Available

- No customization
- Rapid delivery
- Mostly products, some services
- Transparent market-based pricing, terms, and competition
- Typically multiple sources
- Limited procurement laws/policies apply
- Simplified procedures

Readily Available with Customization

- Customized using common, commercial processes
- Competitive solicitations may be needed
- Typically multiple sources
- Products, most DoD services
- Pricing from quotes
- Limited procurement laws/policies apply
- Simplified procedures
- No cost contracts

Defense-unique

- Development financed by DoD
- DoD can dictate terms
- Competition limited or nonexistent
- Pricing based on development costs
- Products, few services
- Reduced compliance burdens and process redundancies
- New rapid acquisition authorities fully implemented with empowered users

DEFENSE-UNIQUE DEVELOPMENT

> *Much of the traditional debate surrounding acquisition reform is focused on the systems within this segment, and many challenges remain. While the DoD can still improve policy and process, its fundamental structure is appropriate.*[3]

The defense-unique market comprises products and services that are purchased or developed only for defense purposes. In the most traditional sense, the defense-unique market segment is characterized by long development timelines, complex procurement processes, detailed contractor business process requirements, and relatively low volumes. Socioeconomic policies apply to defense-unique purchases, as do domestic purchasing preferences such as the Buy American Act (BAA) and the Berry Amendment.[4] Supply-chain risk mitigation is an important element of defense-unique development as well. In all three of these policy areas, contract clauses and subcontracting clause flow-downs are important features. Because competition can be limited, price reasonableness and other cost risks are emphasized.

The Section 809 Panel's incremental recommendations in *Volumes 1*, *2*, and *3* address needed reforms in elements of the current defense acquisition system. Additionally, as noted below, Congress and DoD have instituted acquisition reform policies in recent years that could greatly improve defense-unique purchasing if implemented and used to their greatest possible extent. Beyond these reform efforts rooted in statute and policy tools, much of what can be improved in the defense acquisition system must be achieved by educating and empowering the acquisition workforce to use the full breadth of policies and tools already available to them.

Section 809 Panel Recommendations

Rather than develop an entirely new system for defense-unique acquisitions, the Section 809 Panel has put forward numerous recommendations in the *Volumes 1, 2,* and *3 Reports* that together will improve DoD's ability to acquire and field the capabilities necessary to win current and future conflicts. Although these recommendations were not explicitly set forth in the dynamic marketplace section of the reports, if implemented *en masse*, they would directly affect how products and services from this market segment are developed, acquired, sustained, and managed. Examples of recommendations focused on the defense-unique market include the following:

- **Contract Compliance and Oversight.** Recommendations 5 through 15 clarify and streamline the responsibilities and reporting requirements of the Defense Contract Audit Agency (DCAA). For example, Recommendation 7 provides flexibility to contracting officers and auditors to use audit and advisory services when appropriate, and Recommendation 9 permits use of independent professional auditors to manage schedule and resources.

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[3] Ben FitzGerald, Alexandra Sander, and Jacqueline Parziale, Future Foundry: A New Strategic Approach to Military-Technical Advantage, Center for New American Security, December 2016, 22, accessed October 12, 2018, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-FutureFoundry-final.pdf?mtime=20161213162640.
[4] American Materials Required for Public Use, 41 U.S.C. § 8302. Requirement to Buy Certain Articles from American Sources; Exceptions, 10 U.S.C. § 2533a.

- **Cost Accounting Standards (CAS).** Recommendation 29 revises 41 U.S.C. §§ 1501–1506 to designate the CAS Board as an independent federal organization within the Executive Branch. Recommendation 30 reshapes CAS program requirements to better function in a changed acquisition environment.

- **Portfolio Management.** A series of recommendations in the *Volume 3 Report* outline the benefits of shifting DoD from a program-centric execution model to a portfolio-based execution model. Recommendations 36 and 37 implement portfolio management across the DoD enterprise.

- **Requirements.** Recommendation 39 transitions the current requirements ownership structure into the portfolio management framework.

- **Sustainment and Sustainment Funding.** Recommendation 41 establishes a Sustainment Program Baseline for product support and sustainment over the lifecycle of the program. Recommendation 42 creates a funding type to support the Sustainment Program Baseline.

- **Subcontracting Flow-down Clauses.** Recommendations 62 and 63 encourage greater use of commercial and, in the future, readily available products and services, by proposing a departure from use of contract clauses, broadly applied and flowed down, as the primary means of supply chain risk mitigation. These recommendations also encourage use of commercial subcontracts by reducing the number of commercial flow-down clauses.

Recent Developments in Defense Acquisition Reform

In addition to the Section 809 Panel's recommendations in the three report volumes, both Congress and DoD have introduced acquisition reform efforts in recent years. Several of these efforts are particularly relevant to the defense-unique market and work to streamline processes therein. These efforts demonstrate Congress's commitment to enable DoD to develop and field defense-unique developed solutions at the speed of relevance, and achieve the Secretary of Defense's intent found in the National Defense Strategy (NDS).

> *Congress has been particularly active in legislating acquisition reform over the last three years. For FY2016-FY2018, NDAA titles specifically related to acquisition reform contained an average of 82 provisions (247 in total), compared to an average of 47 such provisions (466 in total) in the NDAAs for the preceding 10 fiscal years.*[5]

The three acquisition tools described below present numerous opportunities for DoD to enhance and streamline its acquisition processes and improve access to nontraditional sources. It is too early to comment on the current DoD initiatives that are designed to experiment with these new or expanded authorities. DoD should ensure full transparency with Congress regarding success and failures of these experimentation initiatives to

[5] CRS, *Acquisition Reform in the FY2016-FY2018 National Defense Authorization Acts (NDAAs),* CRS Report 45068, January 19, 2018, 2, accessed October 31, 2018, https://fas.org/sgp/crs/natsec/R45068.pdf.

- Avoid Congressional overreaction through the restriction or elimination of authorities based on individual successes or failures, and
- Ensure an orderly feedback mechanism for harvesting lessons learned to create process improvements as a result of acquisition experimentation.

The goal must be to improve the overall speed and responsiveness of the DoD requirements and acquisition process. A deliberate experimentation process with an effective feedback loop enables the application of discipline and oversight where appropriate and maximum flexibilities wherever possible.

Middle Tier Acquisition

Middle Tier Acquisition (MTA), first authorized by Section 804 of the FY 2016 NDAA, is an acquisition pathway that focuses on delivering capabilities within 2 to 5 years. Currently, DoD is using an interim authority and an interim authority guidance memo to take advantage of this tool, pending permanent authority in October 2019.

As per the interim implementing guidance, MTA is a "merit-based process for the consideration of innovative technologies and new capabilities [prototyping]… or existing products and proven technologies [fielding]."[6] The Rapid Prototyping element of MTA must achieve residual operational capability within 5 years. The Rapid Fielding element must achieve initial production within 6 months and complete fielding within 5 years. Additionally, Section 804(d) establishes a Rapid Prototyping Fund to support MTA projects. The Rapid Prototyping Fund will operate with the onset of full MTA authority. In the interim, DoD components are funding their MTA efforts.[7]

Defense-unique acquisitions have already begun to benefit from the MTA pathway, despite its recent implementation. For example, the Air Force has established 18 MTA programs that are currently estimated to be saving 44 man-years of time.[8] By allowing for merit-based evaluations, DoD can pursue multiple dissimilar solutions as the result of one *competition* and rapidly fund development, testing, and evaluation. The Rapid Prototyping Fund may also ease funding challenges associated with technology transition between prototyping and fielding. MTA and its separate funding may prove an exciting new tool in bridging the *valley of death*.[9]

Commercial Solutions Opening Pilot

The defense Commercial Solutions Opening (CSO) pilot program was authorized by Section 879 of the FY 2017 NDAA and allows DoD to acquire emerging technologies through a streamlined acquisition

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[6] USD(A&S) Memorandum, *Middle Tier of Acquisition (Rapid Prototyping/Rapid Fielding) Interim Authority and Guidance,* April 16, 2018, accessed November 3, 2018, http://acqnotes.com/wp-content/uploads/2018/05/OSD-Middle-Tier-of-Acquisition-Interim-Authority-and-Guidance-16-Apr-2018..pdf.

[7] For Component-specific MTA guidance, *see* "Acquisition Process: Middle Tier Acquisition (Section 804)," AcqNotes, accessed October 19, 2018, http://acqnotes.com/acqnote/acquisitions/middle-tier-acquisitions.

[8] Air Force General Counsel, email to Section 809 Panel Staff, Nov. 6, 2018.

[9] "In the Pentagon's AT&L Reorg, Beware the Valley of Death," Susanna V. Blume, Defense News, November 6, 2018, accessed October 22, 2018, https://www.defensenews.com/opinion/commentary/2017/11/06/in-the-pentagons-atampl-reorg-beware-the-valley-of-death-commentary/.

authority, awarded within 60 days.[10] The CSO pilot was built on the success achieved by the Defense Innovation Unit and the Defense Information Systems Agency (DISA) in using broad agency announcements (BAAs) to solicit technical proposals. Unlike the original CSO programs, the pilot does not use Other Transaction authority (OTA) for contracting or focus on nontraditional suppliers. Rather, the pilot allows for the award of fixed-price contracts up to $100 million.[11]

A class deviation issued on June 26, 2018 by Defense Procurement and Acquisition Policy (now known as Defense Pricing and Contracting), implements the CSO pilot.[12] An important element of the CSO pilot is the merit-based evaluation procedure, which allows for single or multiple awards as a result of a notice of availability. Even if only one proposal meets the technical criteria established in the notice of availability, competition requirements are satisfied. Conversely, multiple awards may be made to pursue dissimilar solutions should they all meet the technical criteria and funds are available.

> *The primary evaluation factors for selecting proposals for award shall be technical, importance to agency programs, and funds availability. Price shall be considered to the extent appropriate, but at a minimum, to determine that the price is fair and reasonable… Written evaluation reports on individual proposals are required, but proposals need not be evaluated against each other since they are not submitted in response to a common performance work statement or statement of work.*[13]

Although the focus of the CSO pilot is on rapidly procuring commercially-developed innovation, it improves defense-unique acquisitions in a number of ways. Prototypes or components may be purchased quickly for "advanced component development through operational systems development."[14] These technologies are intended to be further developed to meet defense-unique needs. In theory, technologies obtained through the CSO pilot represent the widest possible variety of technical options from all types of suppliers. The CSO allows DoD to quickly test and develop a number of capability options at the same time through a more traditional contracting process. Rather than entirely circumventing the FAR, the CSO and MTA pilots aim to streamline it.

Expanded Authority for Other Transactions

DoD's rapid increase in the use of Other Transactions (OTs) for prototype projects and follow-on production in the past decade has sparked much debate about balancing innovation and speed with regulation and transparency.[15] From FY 2016 through FY 2018, the combined total estimated value for

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[10] FY 2017 NDAA, Pub. L. No. 114-328, 130 Stat. 2000 (2017).
[11] "In Pursuit of Innovative Technologies, DoD Creates Another Pathway Around Traditional Acquisition Rules," Jared Serbu, Federal News Network, July 17, 2018, accessed October 22, 2018, https://federalnewsnetwork.com/dod-reporters-notebook-jared-serbu/2018/07/in-pursuit-of-innovative-technologies-dod-creates-another-pathway-around-traditional-acquisition-rules/.
[12] "DoD Seeks Streamlined Procurements of Innovative Technologies – Other Transaction Agreements and the Commercial Solutions Opening Pilot Program," Susan B. Cassidy, Jennifer Plitsch, and Tyler Evans, Covington, July 3, 2018, accessed October 22, 2018, https://www.insidegovernmentcontracts.com/2018/07/dod-seeks-streamlined-procurements-of-innovative-technologies-other-transaction-agreements-and-the-commercial-solutions-opening-pilot-program/.
[13] USD(A&S) Memorandum, *Class Deviation—Defense Commercial Solutions Opening Pilot Program,* June 26, 2018, accessed November 6, 2018, https://www.acq.osd.mil/dpap/policy/policyvault/USA001228-18-DPAP.pdf.
[14] Ibid.
[15] *See, for example,* "Peering Into the Black Box of OTW Awards," Scott Maucione, Federal News Network, July 24, 2018, accessed October 22, 2018, https://federalnewsnetwork.com/contracting/2018/07/peering-into-the-black-box-of-ota-awards/.

OT awards was around $40 billion, although it is important to note that this value is merely the *potential value* of contracts.[16] Only 10 percent of that value, or about $4.2 billion, was spent.[17]

Recent NDAA provisions point to a Congress that is largely permissive of expanding OT use. For example, Section 864 of the FY 2018 NDAA doubles the limit on OT prototype projects, from $250 million to $500 million.[18] Section 806 of the FY 2017 NDAA[19] creates a new authority for production OTs that is somewhat distinct from the existing 10 U.S.C. § 2371b. Recommendation 81 builds on these expanded authorities, especially regarding how they affect use of follow-on production contracts.

In opening the aperture for OT use for follow-on production, Congress has acknowledged DoD's need to attract nontraditional suppliers and small businesses into the defense-unique sphere. Streamlined acquisition procedures, reduced regulatory burden, and fewer staffing touches are the rallying cry for quickly developing commercially-derived innovation into deployable warfighting capability. In recent years, Congress has granted DoD authorities that provide it with needed tools to more effectively leverage the entire marketplace. Like MTA and CSO, expanded OTA is very new. The real challenge for the future lies in implementation. OTs must be implemented in a way that incentivizes educated risk taking and harvests innovation from across the dynamic marketplace.

Further Efforts Needed

Much work has been done to improve the way in which DoD interacts with commercial markets to attract new suppliers and to leverage existing technology. In improving the pathways for rapidly prototyping defense-unique and commercial solutions, DoD has new acquisition tools for testing and fielding innovative technology. DoD must also work to fully use the acquisition tools that already exist. In conducting interviews on various topics with acquisition professionals working in the defense-unique space, the Section 809 Panel often heard that new tools were not required.

One example of existing tools being applied to efficiently acquire advanced capabilities is the work of the Air Force Rapid Capabilities Office (RCO). The Air Force RCO operates within the defense acquisition system, without any special authorities, and strives to use all of the available tools to achieve its mission. The RCO's unique ability to operate efficiently, even under FAR Part 15 procedures, can be attributed to the following four characteristics:

- Access to decision makers.
- Integrated teams of high-performers.

[16] "Other Transaction Authority (OTA) Trends, Points of Interest, and Entry Points," GovWin, September 7, 2018, accessed October 22, 2018, https://iq.govwin.com/neo/marketAnalysis/view/3008?researchTypeId=1.
[17] Peering Into the Black Box of OTW Awards," Scott Maucione, Federal News Network, July 24, 2018, accessed October 22, 2018, https://federalnewsnetwork.com/contracting/2018/07/peering-into-the-black-box-of-ota-awards/.
[18] FY 2018 NDAA, Pub. L. No. 115-91, 131 Stat. 1494 (2017).
[19] FY 2017 NDAA, Pub. L. No. 114-328, 130 Stat. 2256 (2016).

- Reduced bureaucratic layers of review because programs are delineated as Special Access Programs (SAPs) and not considered Major Defense Acquisition Programs.
- Leadership and culture that encourage creative use of the available acquisition tools.

Some argue that the RCO model cannot be scaled across DoD because not every program executive officer has access to the chief of staff's office, but the principles above are scalable. DoD can and should empower decision makers at the appropriate level, seek to recruit, train, and retain the right people; eliminate unnecessary layers of review; and foster a culture within the acquisition workforce that focuses on leadership and enabling the use of the full gamut of authorities and procedures.[20]

The two specific areas that present cultural challenge on which DoD should focus are competing dissimilar solutions and conducting value analysis. Improving how DoD addresses these practices would enhance the way it operates in the dynamic marketplace, without adding an additional layer of regulation.

Rather than competing slight variations on a proscribed solution outlined in great detail in a request for proposal (RFP) as the current culture generally demands, DoD should encourage and enable competing dissimilar solutions. Fostering this approach would be especially beneficial when a desired capability is known, but its full set of requirements is not yet developed. When appropriate, DoD should solicit technical solutions from industry through established contracting tools like the Statement of Objectives (SOO)[21] or BAA.[22] These tools are similar to the notice of availability introduced by the CSO pilot program described above. In each case, different solutions to a specific technical challenge may be proposed. These processes enable DoD to select multiple proposals and explore how they might fill capability gaps or enhance operational capacity.

One of the biggest challenges to competing dissimilar solutions is DoD's understanding of the capability tradeoffs it is willing to make to achieve the best value for the chosen solution. DoD must also articulate those tradeoff criteria to industry as early as possible. This challenge was recently articulated by Frank Kendall, former Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)):

> *Often in these cases there is a competition between companies offering dissimilar capability levels based on existing products that may be modified to meet a need… In situations like this, the onus is on us, primarily on the user, to determine the value to the government of the different levels of capability and to apply that understanding objectively in the source selection process.*[23]

Competing dissimilar solutions requires very few new acquisition tools, if any. Rather, the shift required in DoD is cultural. SOOs and BAAs operate within the rules governing defense-unique acquisitions: SOOs are an element of Joint Capabilities Integration and Development System

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[20] See Section 809 Panel Recommendations 25, 26, and 27 in *Volume 2,* and Recommendations 59, 60, and 61 in this volume.
[21] "Statement of Work, Performance Work Statement, Statement of Objectives," DAU Acquisition Encyclopedia, accessed October 23, 2018, https://www.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=488854b0-d8ee-4e32-aa3e-301d2ac8ffca.
[22] *See,* Broad Agency Announcement, FAR 35.016(a).
[23] Frank Kendall, *Getting Defense Acquisition Right* (Ft. Belvoir, VA: DAU Press, 2017), 23.

documentation, and BAAs are governed by the FAR.[24] In an era of rapidly advancing technology and abundant commercial innovation, using such tools is key to understanding the technical state-of-the-art. Rather than developing lengthy and specific technical requirements for a new capability, DoD may be better served by leveraging knowledge from its industrial base. The technical performance parameters of defense-unique solutions need not be developed by DoD prior to solicitation. Inviting dissimilar solutions offers a larger range of capabilities that may meet warfighter needs.

As it continues to work with traditional and nontraditional suppliers, DoD also must continue to improve its processes for determining price reasonableness. To determine that a price is *fair and reasonable*, a contracting officer must conduct a price or cost analysis of the item or service. Although a variety of tools and techniques are available to conduct this analysis, DoD frequently limits itself to analyzing cost. Contracting officers often rely solely on cost or pricing data, as described in FAR Subpart 15.4, passing over other available alternatives. This practice adds a barrier to entry in several ways. It excludes new entrants to the market that may not have sufficient sales data for their products or a cost analysis system compliant with DoD practices (which is often inconsistent with private-sector practices).[25] Those companies that do have such sales data may be unwilling to relinquish it for fear of disclosing trade-sensitive data. In all cases, DoD must work to use a broader set of established price reasonableness analysis techniques to remove those barriers and expand the defense industrial base.

Defense-unique acquisitions would benefit from increased use of value analysis, which is a technique used to acknowledge noncost elements in the determination of price reasonableness.[26] Through using value analysis as part of the overall calculation, contracting officers may include items such as foregone research and development costs, warranties, product sustainment, and saved DoD development time to determine price reasonableness. Cost data is an important element of DoD assessments, but perpetuating a culture that is focused primarily on cost prevents DoD from considering the full value of a product. Including value analysis in its evaluations, DoD is better able to understand the market in which it is operating and the costs incurred by industry to develop those products and helps ensure DoD acquires the best solutions for its needs.

Value analysis has gained attention by Congress in recent years. Section 872 of the FY 2017 NDAA added language to allow inclusion of value analysis in price reasonableness determinations, as described in 10 U.S.C. §2379(d).[27] Further training on value analysis was mandated in Section 850 of the FY 2018 NDAA.[28] Like competing dissimilar solutions, however, the broader challenge of adoption is cultural. The defense acquisition workforce must be trained and empowered to use the full range of

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[24] CJCSI 3170.01, *Joint Capabilities Integration and Development System*, January 23, 2015. *Manual for the Operation of the Joint Capabilities Integration and Development System,* accessed October 23, 2018, https://www.dau.mil/cop/esoh/pages/topics/JCIDS%20Documents.aspx.
[25] GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, 15-16, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.
[26] "Value Analysis," DAU Acquisition Encyclopedia, accessed October 23, 2018, https://www.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=477f4a02-9aaa-47e4-818f-0ff5a89551b2.
[27] FY 2017 NDAA, Pub. L. No. 114-328, 130 Stat. 2307 (2016).
[28] FY 2018 NDAA, Pub. L. No. 115-91, 131 Stat. 1488 (2017).

tools available. This will enable DoD to be more knowledgeable and agile across the dynamic marketplace.

The recommendations in all three volumes of the Section 809 Panel's *Final Report* and recent legislative changes go a long way to improve DoD's ability to acquire and field defense-unique solutions. DoD continues to struggle to purchase those products and services that are not being developed for defense-unique purposes. In some of these private-sector markets, DoD must regain its relevance as an attractive business partner. To do so, it must abandon some of the elements of its current acquisition system to better align itself with private-sector practices. The following recommendation establishes a pathway for DoD to become a more sophisticated buyer, so that it may more effectively field readily available products and services that increase lethality, ensure technological dominance, and provide critical warfighter support.

RECOMMENDATION

Recommendation 35: Replace commercial buying and the existing simplified acquisition procedures and thresholds with simplified readily available procedures for procuring readily available products and services and readily available products and services with customization.

> *What kind of a system requires a 47-page solicitation—that incorporates, by my guess, at least 500 pages of text by reference—in order to buy a max of $18,000 worth of cheap furniture? It's lunacy. You cannot reform such a system. You've got to destroy it in order to save it, and to save us.*
>
> *- Vern Edwards, Wifcon Forum*[29]

Problem

Many of the products and services on which DoD relies are available in today's marketplace for anyone to buy. These are products and services that both directly and indirectly enhance warfighting capabilities. DoD is just one of many customers in the dynamic marketplace. Many companies do not view DoD as a viable, much less a critical, business partner. In 2016, for example, FedEx received 40 percent of all DoD contract actions, but the dollars associated with those contracts barely accounted for 1 percent of FedEx's total annual revenue.[30] GAO compiled a list of some of the top innovative companies in the United States with total sales or total revenue ranging from $7 billion to $216 billion and found that direct sales to DoD made up zero, less than one, or less than two percent of those figures.[31] DoD's business practices have only been able to evolve to a certain degree, leaving it with tools and processes that are not optimized for the current economic reality—one in which DoD often

[29] "This is What is Wrong with Government Contracting," Vern Edwards, Wifcon Forums and Blogs, September 3, 2016, accessed July 23, 2018, http://www.wifcon.com/discussion/index.php?/topic/3712-this-is-what-is-wrong-with-government-contracting/&tab=comments#comment-33249.
[30] Calculated from numbers included in Federal Express, *FedEx Annual Report 2016*, accessed November 3, 2018, http://s1.q4cdn.com/714383399/files/oar/2016/docs/FedEx_2016_Annual_Report.pdf. FPDS, *Top 100 Contractors Report, Fiscal Year 2016,* accessed November 2, 2017, https://www.fpds.gov/fpdsng_cms/index.php/en/reports.html.
[31] GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, 8, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.

has limited or no influence in affecting price, terms and conditions, and product and service development in highly competitive markets.

In the past, DoD may have been able to dictate the behavior of companies that made up the traditional military industrial base in which sellers relied on DoD as an integral part of their business strategy. Increasingly, sellers dictate how DoD will behave if DoD wants access to the products and services they offer in a particular market segment. Even traditional DoD suppliers like Boeing and Honeywell, which have substantial private-sector sales, are using business-to-business e-commerce portals to sell aircraft parts used by both public and private-sector buyers and provide logistical planning functions via online shopping carts.[32] Today there is no mechanism available to DoD buyers to leverage these types of dynamically-priced streamlined acquisition tools. Creation of the Defense Innovation Unit and increased use of OTs for more than just research and development demonstrate DoD's need to contract in a manner that is more consistent with how the private sector does business. Many believe the only way DoD can remain competitive with near-peer competitors and address emerging threats is to operate outside of the FAR, despite all the efforts over the past 25 years to improve and emphasize the use of simplified commercial buying procedures and terms and conditions.[33]

To provide capability at the speed of relevance, Congress and DoD may continue to expand, or over rely, on tools like OTs to get around the FAR and the procurement system. Alternatively, Congress and DoD could walk the pathway laid out in this section. The Section 809 Panel's recommendations that address commercial buying, simplified acquisition, and small business innovation in an *evolutionary* manner are necessary to reform the existing acquisition system in the short term. This recommendation, however, would *revolutionize* the existing procurement system into something that does not require work-arounds to meet warfighter needs quickly and efficiently. It is clear a serious problem exists when venture capital firms looking to invest in cutting-edge commercial software companies advise those companies not to do business with the federal government, even via the existing work-arounds.[34] It is time to stop creating or expanding authorities for DoD to operate outside the acquisition system and deliberately implement changes that will make DoD's acquisition system function in today's private-sector-driven marketplace; establishing a system that meets warfighters' needs in a way that provides agility and values time. Table 1-1 highlights the differences between the complex way DoD currently buys from the commercial marketplace to the simplified and more private-sector-accessible way it would buy if this recommendation were adopted.

[32] "Honeywell Aerospace Flies High with its Redesigned B2B Portal," Mark Brohan, B2B E-Commerce World, July 3, 2018, accessed November 2, 2018, https://www.digitalcommerce360.com/2018/07/03/honeywell-aerospace-files-high-with-its-redesigned-b2b-portal/.
[33] *See* "DoD is Buying Fewer, Yes, Fewer Commercial Items. Oops!," Colin Clark, Breaking Defense, July 19, 2017, accessed October 3, 2018, https://breakingdefense.com/2017/07/dod-is-buying-fewer-yes-fewer-commercial-items-oops/.
[34] Stakeholder meetings with the Section 809 Panel, May–October 2018. .

Table 1-1. Comparison of Current DoD Commercial Buying Practices to Proposed Readily Available Pathways

Current DoD Commercial Buying	Readily Available	Readily Available with Customization
▪ Narrow and complicated 8-part definition ▪ Not-inclusive of all open market available products	▪ Simpler, broader definition ▪ Includes nondevelopmental items	▪ Readily available products customized via commercial processes ▪ Almost all services
Procedures		
▪ FAR 13.5 simplified acquisition procedures when under $7M, more complex Part 15 procedures over $7M	▪ New DFARS 213.1 readily available procedures (RAPs) for under $15M – higher authority may authorize use above $15M	▪ New DFARS 213.1 procedures with no upper threshold – contracting officer may rely on market based competition when below $15M
Advertising/Competition		
▪ Publicly post each procurement expected to exceed $25K and vendors submit proposals or quotes ▪ Limited use of simplified procedures like standing price quotes and oral solicitation ▪ Competition standard is maximum extent practicable under $7M, "full and open" over $7M	▪ No public advertising required; preference for relying on market research and market-based competition ▪ Utilize standing price quotes and oral/direct solicitation ▪ Contracting officer may waive System of Award Management (SAM) requirement for small/nontraditional businesses	▪ Written or electronic solicitations will usually be necessary; must be publicly posted for all actions above $15M ▪ Under $15M the contracting officer may rely on market-based competition ▪ Contracting officer may waive SAM registration requirements for small/nontraditional businesses
Contract/Transaction Method		
▪ Firm fixed price, fixed price with economic price adjustment (EPA), or time and materials contracts with up to 165 FAR and DFARS clauses ▪ Various FAR and DFARS clauses flow down to commercial subcontractors	▪ Firm fixed price or fixed price with EPA purchase orders and Government Purchase Card (GPC) transactions	▪ Firm fixed price, fixed price with EPA, or time and materials ▪ Purchase orders, GPC transactions, and contracts with minimal clauses ▪ Additional clauses must be approved by higher authority ▪ Supply chain and other technical risks should be mitigated via requirements generation process
Small Business Set-Asides		
▪ All procurements below simplified acquisition threshold (SAT) are 100% set-aside for small business; *rule of two* still applies above the threshold	▪ No mandatory small business set-asides; small businesses will receive a 5% price preference ▪ DoD must still meet small business utilization goals	▪ The same 5% price preference will be used with no mandatory set-asides ▪ DoD must still meet small business utilization goals

Current DoD Commercial Buying	Readily Available	Readily Available with Customization
Socioeconomic		
▪ BAA applies above the micro-purchase threshold (MPT); COTS are exempt ▪ Berry Amendment does not apply below the SAT ▪ Davis-Bacon (DBA) and Service Contract Act (SCA) labor rates apply, even below MPT	▪ No BAA or Berry Amendment application due to established global supply chain/lack of tech advancement ▪ DBA and SCA rates do not apply	▪ No Buy American Act or Berry Amendment application due to established global supply chain/lack of tech advancement ▪ DBA and SCA rates do not apply
Transparency/Accountability		
▪ Basic purchasing information posted to Federal Procurement Data System–Next Generation (FPDS-NG), notices of pre-solicitation, solicitation, and award published to FedBizOps ▪ Pre- and postaward protests may be filed at the agency, GAO, and/or COFC	▪ All awards will be posted online; including market research, price comparison, and award decision basis if based on factors other than price ▪ Limited protests may be filed with agency	▪ Awards made using market-based competition will be publicly posted ▪ When solicitations are publicly advertised; procurements will be subject to pre- and postaward protests

Background

The Section 809 Panel's June 2018, *Volume 2 Report* described operationalizing the Dynamic Marketplace as providing DoD with "a new set of simplified acquisition procedures to utilize when it is buying from the private sector, while also streamlining the way DoD develops and acquires everything else."[35] This section addresses the legal and regulatory changes necessary to effectively modernize and simplify DoD's acquisition of readily available products and services consistent with the goal of behaving the way buyers in the private sector do. This recommendation is an effort to reduce barriers to doing business with DoD, to facilitate delivering capability and lethality to U.S. warfighters, and to out-pace near-peer competitors and nonstate actors.

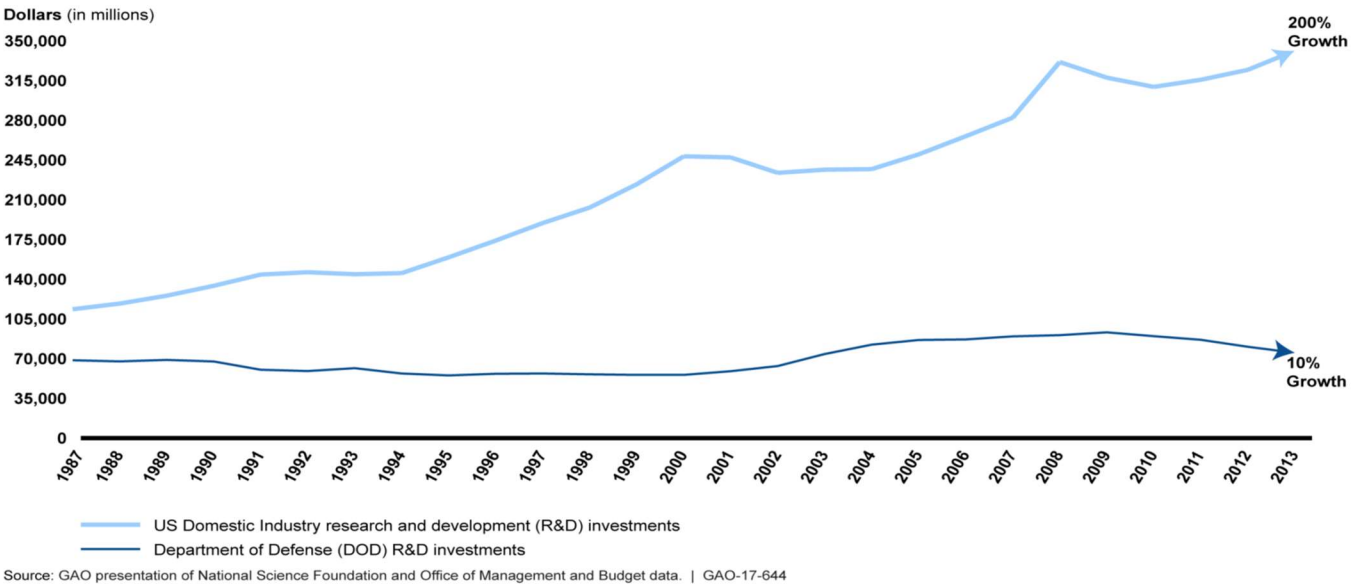
DoD leadership, Congress, and stakeholders interviewed by the Section 809 Panel indicated that DoD must become a more agile player in an increasingly dynamic and competitive marketplace. The Center for New American Security's *Future Foundry* paper, GAO's July 2017 report on military acquisitions to the Senate Armed Services Committee, and the commercial buying and small business chapters of the Section 809 Panel's *Volume 1* and *Volume 2 Reports* highlight challenges DoD faces in leveraging the private-sector marketplace.[36] Challenges persist, in part, because decades of legislation and policy initiatives that governed, and often attempted to reform, the acquisition system continue to rely on

[35] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3*, 184 (2018).
[36] Ben FitzGerald, Alexandra Sander, and Jacqueline Parziale, *Future Foundry: A New Strategic Approach to Military-Technical Advantage, Center for New American Security,* December 2016, accessed October 12, 2018, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-FutureFoundry-final.pdf?mtime=20161213162640. GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.

unique terms, conditions, and processes better suited to the industrial age, not the information age, much less the rapidly approaching artificial intelligence age. These industrial-age artifacts are not agile, do not value time, and serve as barriers to small and nontraditional businesses.

The Section 809 Panel's vision of a future DoD acquisition system is one that is agile, efficient, and effective at procuring products and services offered for sale to the public or other government agencies, or are otherwise readily available in the marketplace. Figure 1-1 demonstrates the dramatic growth of private-sector research and development spending, compared to DoD. As a result of this investment, the progress of commercial technology has dramatically expanded over the last 2 decades, driving incredible growth in the public's demand for technologies that at one time were limited to government or defense-specific applications. The fact that the computing power of a smart phone in the average American teenager's pocket dwarfs that of the Apollo guidance computer used to navigate to the moon and back is a well-worn anecdote of the advancement in commercial technology.[37] In addition to cutting-edge consumer electronics and software being readily available in the marketplace, the growth of a globally accessible marketplace and the rise of global corporations and supply chains drives private-sector demand for complex logistics, data analytics, and other specialized services.

Figure 1-2. DoD and Private-sector Research and Development Spending[38]



Source: GAO presentation of National Science Foundation and Office of Management and Budget data. | GAO-17-644

The Section 809 Panel has thus far recommended an important *evolution* in commercial buying to narrow the gap between how DoD behaves in today's marketplace and how other buyers behave, but a *revolution* in the way DoD functions in the marketplace is necessary. How Congress and DoD think about competition, total procurement costs, pricing, value, and transparency must be further expanded to enable DoD to effectively leverage today's, and more importantly tomorrow's, marketplace to

[37] "How the Computing Power in a Smartphone Compares to Supercomputers Past and Present," infographic, Business Insider, accessed November 2, 2018, http://www.businessinsider.com/infographic-how-computing-power-has-changed-over-time-2017-11.
[38] GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644*, 6, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf. The expenditures have been adjusted for inflation in accordance with DoD National Defense Budget Estimates for Fiscal Year 2017. Industry research and development spending may include funding provided by DoD for research performed by industry.

empower "the warfighter with the knowledge, equipment, and support systems to fight and win."[39] It is time to abandon some of the more onerous and outdated concepts, as compared to private-sector practices, that create unnecessary friction in the acquisition system. This friction inhibits rapid fielding of readily available products and services that increase lethality, ensure technological dominance, and provide critical warfighter support. This section lays out a pathway for DoD to become a more sophisticated buyer in the increasingly Internet-based, globally interconnected, privately-funded, and innovation-rich marketplace.

Discussion: Readily Available

In the *Volume 1 Report* and the *Volume 2 Report*, the Section 809 Panel has recommended changes to the FAR's commercial buying processes and procedures, which if implemented wholesale, will substantially improve DoD's ability to rapidly and efficiently acquire those products and services that meet the statutory definition of commercial. Even with those proposed changes, the definition of what is commercial is far too narrow to provide access to today's marketplace and is too complicated in its application. Inconsistent or stalled commercial determinations made by contracting officers as well as requirements for companies to produce supporting data to prove a product or service is commercial, are challenges that persist and will continue even if all of the Section 809 Panel's earlier commercial recommendations are adopted.[40] Some industry stakeholders explained, in the context of their purchasing systems under government prime contracts, that they do not attempt to make a commercial determination and use the current simplified commercial buying procedures because of the scrutiny applied by DCMA to their determinations and a lack of certainty as to what DCMA might evaluate in a given case. This lack of certainty is exacerbated by the potential for reviews by various inspection regimes like the DoD Inspector General (DoD IG) and GAO and during audits conducted by DCAA. The effect is a culture of risk aversion that is characterized by a lack of agility and unnecessary delays in the procurement process.

Effectively accessing the full extent of the capabilities readily available in the private sector, necessitates abandoning the terms *commercial* and *commercial buying* for something simpler and more inclusive. This revolution is necessary to implement the simple and effective process for accessing the marketplace as envisioned by Congress when the Federal Acquisition Streamlining Act (FASA)[41] was passed.

The concept of *readily available* products and services, is defined in the *Volume 2 Report* as

> *Any product or service that requires no customization by the vendor and can be put on order by customers.*[42] *Optional priced features of products and services in a form that is offered for sale in the normal course of business, fall within the definition of readily available.*

[39] DoD, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, 5, accessed June 5, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.
[40] USD(AT&L) Memorandum, *Guidance on Commercial Item Determinations and the Determination of Price Reasonableness for Commercial Items*, accessed July 23, 2018, https://www.acq.osd.mil/dpap/policy/policyvault/USA003554-16-DPAP.pdf.
[41] The Federal Acquisition Streamlining Act of 1994, Pub. L. No. 103-355 (1994).
[42] This includes products and services that only governments buy or only governments can buy due to export controls or other legal limitations.

The terms *readily available* and *readily available with customization* subsume everything that would currently meet the *commercial product and services* definitions and also includes many products and services that would not. Nondevelopmental items and products and services that may only be sold or offered for sale to other defense departments and other federal or local government entities would also generally be considered readily available.[43] These products or services are developed and paid for by private investment (not DoD or the U.S. government), have established supply chains, and are available for potential customers to put on order, although production lead times and available stock levels may delay delivery. DoD needs greater flexibility to procure these products and services in a manner that more closely resembles other consumers in the market and makes DoD a more attractive business partner.

Near-peer competitors and nonstate actors are not encumbered by the same bureaucracy in their purchasing systems as the U.S. government. A story, recounted at the signing ceremony of FASA, highlighted the issue of the U.S. government not being able to buy Motorola radios from the company's commercial line in support of Operation Desert Storm. The Japanese government ended up purchasing the radios for DoD. Such situations still exist, albeit at a different level of sophistication. DoD must be able to rapidly field existing technology that might be the 80 or 90 percent solution, and let its smart and talented operators innovatively use that technology to realize tomorrow's solutions today. Spending years developing and fielding yesterday's solution is the wrong strategy. The following are the key elements of this proposal:

- **Readily Available Procedures:** The readily available procedures (RAPs) and the authorities recommended in this section apply to procurement of readily available products and services below a $15 million threshold. In many cases, the increased dollar value of readily available products and services does not result in increased procurement risk. In those cases, a contracting officer should request authorization to use these procedures for procurements in excess of the threshold. These procedures would replace existing Simplified Acquisition Procedures (SAPs) in FAR Part 13 for DoD, and readily available buying would replace FAR Part 12 commercial buying for DoD. In situations for which DoD requires capabilities not offered by the private-sector, RAPs would not be used.

- **Competition:** Competition would be achieved primarily through documented market research, recognizing that readily available products and services exist in the market and can be found through a variety of private-sector tools. Market forces set the prices that consumers pay for these products and services because they are publicly available for consumers to compare and evaluate. Even when a new product is only offered by one vendor, pricing and product quality are driven by what the market will bear. Issuing a competitive RFP for these products typically does not increase competition. In fact, soliciting the product or service using today's processes presents a barrier to entry for many companies, and likely increases the total procurement cost and delivery timelines.

[43] Congress, for decades, to no avail, has tried to move the DoD to buy more non-developmental items. GAO, *Procurement: DoD Efforts Relating to Nondevelopmental Items, GAO/NSIAD-89-51,* February 1989, accessed August 23, 2018, https://www.gao.gov/assets/220/210964.pdf.

- **Applicable Laws:** The statutory relief that currently only applies to *commercially available off-the-shelf* (COTS) items would be expanded to apply to *all* readily available products and services. The current system of small business set-asides would be changed in favor of a small business price preference for evaluation purposes. The Military Services and Defense Agencies, through their contracting activities, would be required to use small-businesses strategically, as discussed in the small-business policy pivot described in the *Volume 1 Report* and directed by Section 851 of the FY 2019 NDAA.[44]

- **Price Reasonableness:** Contracting officers should, in most cases, be able to determine price reasonableness based on multiple offerings of similar products and services in the marketplace. When a new or substantially updated product is offered for sale, the end-user should be able to provide input into the price reasonableness determination by articulating whether the products or services provide value at a given price. Price should be the primary factor for making an award decision in many instances, but past performance, capability, warranties, and other similar factors may also be considered.

- **Transaction Methods:** Transactions for readily available products and services should be conducted using Government Purchase Cards (GPCs) and simple fixed-price purchase orders. The terms and conditions that would be included in a purchase order are a subset of what is left of the Contract Terms and Conditions – Commercial Items clause at FAR 52.212-4 after all of the Section 809 Panel's commercial buying recommendations have been implemented.[45] Prime contractors would not be required to flow down any DoD clauses when procuring readily available products and services from subcontractors in support of defense-unique development contracts. This recommendation includes authorizing contracting officers to make purchases with their GPCs up to their warrant or the $15 million threshold, whichever is lower, without issuing a purchase order. This practice means accepting sellers' terms and conditions and using terms and conditions included in DoD's agreements with the financial institutions that issue the GPCs.

- **Transparency and Accountability:** To improve transparency and provide for public accountability, award information would be published for each award, to include the results of the contracting officer's market research and a short award decision document when a decision was based on factors other than low price. Protests would be limited to agency-level protests with the grounds for a protest limited to situations for which the product or service that was procured using the readily available procedures was not readily available or the contracting officer did not conduct market research consistent with these procedures.

In general, procuring readily available products and services poses few risks that must be managed by government-unique contract terms and conditions. As a result, the process for procuring these

[44] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 167-194 (2018).
[45] *See,* Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 32-42 and Tables F-5, 6, and 7, A-39-67 (2018).

products and services should be very simple. When exceptions to this rule exist, additional terms and conditions should be applied only by exception and as required by the end-user.

To adequately streamline procurement of readily available products and services, the same statutory relief that is currently reserved for COTS products and services must be expanded to the broader universe of readily available. This recommendation would achieve what the Section 809 Panel argued for in the Commercial Buying section of the *Volume 1 Report*.[46] DoD would be able to seek out "high-tech, cutting-edge solution(s), that…will likely not satisfy the *sold in substantial quantities*…criteria of the COTS definition,"[47] and engage those vendors on their terms. This new construct must replace existing commercial buying and simplified acquisition procedures for DoD. Maintaining the current construct, as an alternative, would undermine the objectives of these recommendations by adding complexity and confusion to a process that needs to be more simple and straightforward.

Determining what is a readily available product or service should be much simpler than the current commercial item determination process, and the applicable implementing guidance must direct that any reviewing body, such as DCMA, DoD IG, or GAO, must presume the determination made by a contracting officer, or a DoD prime contractor, will not be subject to criticism unless it can affirmatively prove a product or service was not readily available at the time of the procurement. A readily available service that requires no customization is one for which the contracting officer can purchase the service exactly as it is offered by the vendor at prices advertised to the public. Examples of readily available services include subscription services like cable television, commercial Internet service, or cloud storage for which the contracting officer selects from priced options that are available. In addition, one-time services like maintenance service calls or short-term expert consultant services and simple transactional services like dry cleaning or an oil change may also be procured using these readily available procedures.

Most of the readily available products and services DoD procures are available from multiple reputable vendors meeting generally accepted quality standards with basic commercial terms and conditions. Not all products that meet the minimum requirements in a purchase request are created equal, and not all businesses offer the same policies regarding shipping, returns, or warranties. Contracting officers may generally be able to rely on price as the only factor in making an award decision, but they should consider reliable past performance information related to the vendor and the product to inform the award decision. There are also publicly available consumer and expert reviews of products and vendors that should be considered, in addition to the government's past performance database and the experience of the contracting officer and the requiring activity. Favorable shipping or return policies and other considerations, like the length of a manufacturer- or vendor-offered warranty, should also be considered in making a best-value determination when appropriate. Market research and understanding the requiring activity's need will enable the contracting officer to determine what factors should be considered in making an award decision.

[46] Ibid, 20-21.
[47] Ibid, 21.

Stakeholders interviewed by the Section 809 Panel indicated the intellectual property (IP) of private-sector companies will not be protected by DoD under existing policy.[48] The readily available procedures must clearly state that DoD receives no more IP from vendors than that which the vendors typically include in the sale of their products and services in the marketplace.

Stakeholders in industry and the government shared concerns about the desire of some acquisition programs and contracting officers in DoD to procure source code for commercial software products, even though they do not have capacity to do anything with that source code. In addition, a number of software companies, and the private investors many of the companies rely on, fear that if DoD partnered with the company to develop an innovative solution, it could lead to DoD taking the idea and turning it into an RFP to find someone who might be able to produce the solution at a cheaper price. It must be clear to the private sector that DoD values the intellectual capital companies invest in their products and services and that their IP and their solutions will be protected. DoD must be more strategically selective with decisions to pursue IP rights and technical data related to privately developed, readily available products and services.

The statutory changes needed to implement these readily available procedures are detailed in the subrecommendations at the end of this section. In addition, changes to the existing simplified acquisition procedures found in FAR Part 13 are also provided at the end of this section, with the intent being to heavily amend DFARS Part 213 to provide RAPs for DoD. These procedures would be applicable up to a threshold of $15 million, which, according to Bloomberg analysis of Federal Procurement Data System (FPDS) data, could streamline as much as 90 percent of DoD's transactions, and up to 55 percent of the dollars spent based on FY 2017 spending.[49] Understanding that the monetary value of a procurement does not necessarily translate into increased procurement risk, the authority to use these procedures may be granted to the contracting officer by the chief of the contracting office when the expected value of the procurement exceeds $15 million.[50] One of the fundamental changes that Congress and DoD must be willing to embrace in implementing these procedures is the manner in which effective competition is achieved for readily available products and services—competition that allows DoD access to the entire marketplace, not just those companies that have been able to navigate the complex and confusing government system.

Competition

The current universal standard for competition is the federal government's requirement for *full and open* competition. For simplified acquisitions, FASA recognized in 1994 that the competition standard should be exercised to the "maximum extent practicable."[51] In today's commercial marketplace, DoD-administered full and open competitions result in an artificial competition that is neither full nor open. Countless stakeholders have shared frustration with the barriers to entry that prevent them from being considered for a DoD contract and the full and open competition process is chief among them.

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[48] Commercial Items, Components, or Processes, DFARS 227.7102(b).
[49] Bloomberg provided analysis of FPDS-NG data. This data captures all DoD contract actions and therefore would include in the number of transactions valued below $15 million a large number of contract modifications and actions for products and services that would not meet the definition of readily available.
[50] For the definition of the Chief of the Contracting Office term, *see*, Definitions, FAR 2.1.
[51] Contracts: Competition Requirements, 10 U.S.C. § 2304. Promoting Competition, FAR 13.104.

To participate in a full and open competition, a company must monitor FedBizOps, register in the System for Award Management (SAM), and be willing and able to respond to an RFP laden with FAR/DFARS clauses and provisions. Most of the readily available products and services DoD contracting officers buy every day are available from multiple easily accessed sources, with prices transparently advertised online or through catalogues. These products and their prices are available to anyone, including the nation's near-peer competitors and nonstate actors, which also see them. These prices, along with product quality, shipping rates, warranties, and vendors' commercial business practices are subject to continuous competition and are transparent to the public. DoD should have the authority to leverage this continuous market-based competition, which constitutes true full and open, transparent, competition.

The private sector uses market-based competition in everyday transactions to buy readily available products and services. Companies that sell in the private sector do not need to see a publicly posted RFP to know that their products, prices, and related terms and conditions must be competitive, if they are going to succeed. To remain competitive, they constantly adjust their prices and terms and conditions.

For DoD purposes, market-based competition, as discussed in the *Volume 2 Report*, means:

> *The consideration of sources that offer readily available products and services at prices available to any potential buyer, resulting in competition being established through market forces.*

Adopting the definition above would give contracting officers discretion to use standing price quotations as defined by recommendations in the *Volume 2 Report*, use oral solicitations, or send a short electronic solicitation that may be no more than an email or the completion of an online request for a quote.[52] If a contracting officer determines that a publicly posted solicitation is necessary, nothing would prevent posting one for a period determined by the contracting officer based on the nature of the requirement.

The contracting officer's market research must be thorough but does not need to be exhaustive. The requirement to post elements of the contract file on award provides information on whether the rules for market-based competition were followed and an opportunity to search for trends that indicate process corruption. The process would be more transparent to the taxpayers because pricing information for competitors in the market would be publicly available.

Online buying through individual vendor websites and e-marketplaces like Amazon, Grainger, and the Boeing Parts Page "is becoming the new normal for American businesses."[53] Congress has recognized this trend and directed the General Services Administration (GSA) to implement a program for procuring COTS products through commercial e-commerce portals.[54] GSA is considering how to implement this authorization by examining a mixture of e-commerce, e-marketplace, and e-portal

[52] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 2, 9* (2019).
[53] "B2B E-Commerce Trends to Take Notice of in 2018," Jary Carter, Forbes, February 15, 2018, accessed July 25, 2018, https://www.forbes.com/sites/theyec/2018/02/15/b2b-e-commerce-trends-to-take-notice-of-in-2018/#57a6500f7339.
[54] FY 2018 NDAA, Pub. L. No. 115-91 (2017).

concepts, which could be extraordinarily useful in procuring readily available products and services.[55] Although the statute authorizes purchases through the portal up to the simplified acquisition threshold, the House of Representatives proposed increase of the micro-purchase threshold from $10,000 to $25,000 for purchases made through the e-commerce portal did not get enacted in the FY 2019 NDAA.[56] The e-commerce portal provisions are a step in the right direction, but will provide limited benefit because they will not provide access to the entire marketplace and will not accelerate DoD's ability to procure innovative, readily available products and technology solutions, other than COTS products valued at less than $10,000. The existing e-commerce portal concept would provide a source contracting officers could use in doing market research for some readily available products. An e-commerce portal that provides a gateway to all the products and services offered for sale on the Internet could be the primary source from which DoD might acquire readily available products and services under the authorities provided in this proposal.

E-commerce portals could also provide DoD a tool for collecting data on spending patterns to "critically analyze an organization's spending and use the information to make better business decisions."[57] Such analysis is the goal of spend management, strategic sourcing, and category management—concepts that are gaining momentum within DoD.[58] Often strategic sourcing translates to awarding large indefinite-delivery/indefinite-quantity (IDIQ) contracts, with negotiated pricing. The practice of concentrating buying under a limited number of large-agency or governmentwide contracts has the potential to inhibit innovation and limit competition. Rather than creating a complex multiple award IDIQ, the Section 809 Panel's readily available proposal would enable DoD to bargain with vendors for enterprise or agencywide discounts when organizations place individual orders. The vendors would not need to decide which IDIQ vehicles to spend their bid and proposal costs on and incur operating costs to meet the compliance requirements associated with an IDIQ.[59]

Facilitating contracting officers' ability to make individual transactions with vendors in the open market has the potential to reduce reliance on multiple award IDIQs, the GSA schedules, and other governmentwide contracts that limit competition. More decentralized buying, relying on the open market, however, may increase the chances that contracting officers could procure counterfeit products or information technology products that present cybersecurity concerns. Approved product lists and qualified vendor lists—created when only certain products meet DoD's requirements or only certain vendors are qualified to provide certain products or services—would provide a means of mitigating this concern. An example would be the existing DoD Information Network (DoDIN) Approved

[55] GSA, *Procurement Through E-Commerce Portals: Implementation Plan*, March 2018, accessed August 30, 2018, https://interact.gsa.gov/sites/default/files/Commercial%20Platform%20Implementation%20Plan.pdf.
[56] FY 2019 NDAA, Pub. L. 115-232, Conference Report, H. Rept. 115-874, 905.
[57] "Category Management and Strategic Sourcing Defined," Defense Pricing and Contracting (DPC), accessed November 6, 2018, https://www.acq.osd.mil/dpap/ss/index.html.
[58] "AF Aims to Save $2B, Improve Lethality with New Acquisition Approach," Debbie Aragon, U.S. Air Force, April 26, 2018, accessed August 7, 2018, https://www.af.mil/News/Article-Display/Article/1504349/af-aims-to-save-2b-improve-lethality-with-new-acquisition-approach/. "Category Management and Strategic Sourcing Defined," Defense Pricing and Contracting (DPC), accessed November 6, 2018, https://www.acq.osd.mil/dpap/ss/index.html.
[59] *See*, "An Excess of Multiple-Award Contracts is Creating New Problems for Government," Brian Freel, Government Executive, April 20, 2016, accessed August 7, 2018, https://www.govexec.com/excellence/promising-practices/2016/04/excess-multiple-award-contracts-creating-new-problems-government/127645/.

Products List (APL) managed by DISA.[60] The DoDIN APL provides "a consolidated list of products that have complete interoperability and cybersecurity certification" and DISA has established procedures for testing and certifying products to be added to the APL.[61] The e-commerce portal being developed by GSA could provide simultaneous access to all products and services advertised and searchable on the Internet, while only allowing buyers to purchase approved products. Some have advanced the theory that by not advertising upcoming purchases to the world, individual DoD procurement actions for readily available products will facilitate hiding in plain sight and make sabotage and fraud against the purchasing process less likely.

Some of the basic tenants of public procurement, like publicly posting RFPs for readily available products and services, have become outdated and create barriers to entry for nontraditional companies and barriers to innovation for DoD. Continued use of complicated RFPs poses challenges for DoD in maintaining its edge over near-peer competitors. To resolve this issue, the United States must reshape public procurement provisions in trade agreements to which it is a party. The following, describing the North American Free Trade Agreement's public procurement chapter, is true regarding other trade agreements, including the foundational World Trade Organization Agreement on Government Procurement (GPA):

> *NAFTA's current government procurement chapter was written before digital technologies changed not only the products and services being purchased but also how the purchases are made in the procurement market both in the U.S. and with our key trading partners.*[62]

These trade agreements apply to most of the products and services that are readily available in the marketplace. The GPA, for instance, provides very specific requirements for publicly advertising RFPs for any covered procurement.[63] All covered procurements must follow these rules. For commercial buying, each procurement must be publicly advertised for a minimum of 10 days.[64] The concept of readily available will need to be incorporated into these trade agreements. As a whole, the concept should be agreeable to the international community, as it recognizes the global nature of supply chains and should further open the United States defense market to responsible foreign sources of supply.

Practices like BAAs and the newly implemented CSO push the boundaries of the advertising requirements found in these trade agreements.[65] CSO is a step in the right direction for contracting officers to have greater flexibility to access innovative commercial solutions, including research and

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[60] "Approved Product List Integrated Tracking System," DISA, accessed November 2, 2018, https://aplits.disa.mil/processAPList.action.
[61] Ibid.
[62] "Government Procurement Moves to Center Stage in NAFTA Renegotiations," Eminence Griffin, TechWonk Blog, January 23, 2018, accessed July 28, 2018, https://www.itic.org/news-events/techwonk-blog/government-procurement-moves-to-center-stage-in-nafta-renegotiations.
[63] *See*, World Trade Organization, *Revised Agreement on Government Procurement,* Articles VII and XI, accessed July 25, 2018, https://www.wto.org/english/docs_e/legal_e/rev-gpr-94_01_e.pdf.
[64] Ibid.
[65] Section 879 of FY 2017 NDAA, Pub. L. 114-328 (2016). USD(A&S) Memorandum, *Class Deviation—Defense Commercial Solutions Opening Pilot Program,* June 26, 2018, accessed November 6, 2018, https://www.acq.osd.mil/dpap/policy/policyvault/USA001228-18-DPAP.pdf.

development, and authorizes competition requirements to be met through technical analysis.[66] Other than the fact that CSO is only a pilot program, and is not a permanent authority, there is a single, large, problem with the statutory definition of *innovative*. The commercial solution opening may only be used to acquire "innovative commercial items, technologies, and services" with innovative being defined as

> *(1) any technology, process, or method, including research and development, that is new as of the date of submission of a proposal; or*
>
> *(2) any application that is new as of the date of submission of a proposal of a technology, process, or method existing as of such date.* [67]

How the term *new* in the definition is interpreted could be problematic and will likely be inconsistent across DoD, if not across individual contracting offices. It is unclear whether the term means new to DoD or new to the private sector. It is also unclear what happens if a solution is not considered new, but the concept is evaluated and the program office or operator wants to procure it and field it quickly. Broader authority to compete solutions and negotiate the business arrangement after the technical competition is necessary for DoD to adequately leverage industry expertise and commercial technology advancement. Such authority should not be limited by how an acquisition official or agency attorney might interpret the term *new*.

Maximizing competition and access to innovation requires that contracting officers have authority to waive SAM registration requirements for vendors offering readily available products and services when doing so is in DoD's best interest. Contracting officers should encourage companies to register in SAM if the companies are seeking to do business with DoD on a regular basis.

Under the proposed readily available procedures, contracting offices would need to periodically publish notices of anticipated procurements on FedBizOps and other online media likely to reach small and nontraditional businesses in a given industry. These notices would be published by individual contracting activities and indicate that they only apply to the specific contracting activity issuing the notice. In addition to the list of readily available products and services the buying activity expects to procure, the notice would explain that contracting officers will rely on publicly available product information and pricing to conduct market research and make award decisions in procuring those products and services.

Applicable Laws

In addition to applying the same statutory relief to readily available products and services as is currently provided for COTS items, the proposed new system should allow for eliminating domestic purchasing preferences and certain labor rate protections. BAA and the Berry Amendment undermine DoD's ability to acquire the most innovative products at reasonable prices due to their restriction on non-U.S. components.[68] BAA and Berry Amendment provisions are increasingly out of step with

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[66] USD(A&S) Memorandum, *Class Deviation—Defense Commercial Solutions Opening Pilot Program,* June 26, 2018, accessed November 6, 2018, https://www.acq.osd.mil/dpap/policy/policyvault/USA001228-18-DPAP.pdf.
[67] Section 879 of FY 2017 NDAA, Pub. L. 114-328 (2016).
[68] Requirement to Buy Certain Articles from American Sources; Exceptions, 10 U.S.C. § 2533a.

commercial practices and global supply chains across most product categories. Domestic sourcing needs should be addressed by DoD's Industrial Base office and the Commerce Department in identifying critical needs and allocating resources to stimulate cutting-edge domestic capacity. The labor rate protections of the Service Contract Act, Davis–Bacon Act, and Public Contracts Act (formerly Walsh–Healey Act) are both inflationary and duplicative of regulations like the Occupational Safety and Health Act (OSHA) and the Fair Labor Standards Act (FLSA).[69] The challenges these statutes pose to DoD's effective use of precious resources are more fully discussed in Recommendations 64 and 65 of this report. Implementation of these recommendations will dramatically improve how the vast majority of DoD procurements are made, but will only remove the application of these laws from a small portion of the dollars spent.[70]

Removing application of BAA and the Berry Amendment to readily available products and services will likely have a more substantial effect. Much of the textiles, clothing, and footwear currently subject to the Berry Amendment would generally meet the definition of readily available, as would many product categories currently under BAA restrictions. The limits BAA and the Berry Amendment place on accessing cutting-edge products produced outside of the United States are antithetical to efficiently procuring the most advanced readily available products and solutions.[71] Removing the requirement to apply these provisions to readily available products may also remove barriers to entry into the defense marketplace caused by supply chain restrictions. Small and nontraditional businesses unable to source U.S.-made components for readily available products now would be able to compete for DoD business under the proposed system.

Removing the federal government-unique labor rate requirements would have little to no effect on the service, construction, or manufacturing industries, especially considering the fairly limited scope of service contracts and construction projects that could be considered readily available without any customization. The safety and wage standards required by OSHA and the FLSA would continue to apply without including them as specific terms and conditions—they are laws of general applicability.

The statutory reservation of all contract awards under the current simplified acquisition threshold, and additional set-aside provisions in FAR Part 19, are inconsistent with the strategy proposed in the *Volume 1 Report* and directed by the FY 2019 NDAA.[72] For DoD to fully implement a strategy that focuses on investing in innovative small businesses and ensures DoD maintains technical dominance over near-peer competitors and emerging adversaries, DoD needs flexibility to determine how it meets the goals established by the Small Business Administration (SBA). Consequently, DoD must be able to implement a deliberate strategy to meet its small business goals through investments in innovation to ensure a robust industrial base. Much of that investment could come in the form of procuring privately developed, readily available technology solutions. Set-asides do not create the proper incentives for

[69] Service Contract Labor Standards, 41 U.S.C. §§ 6701-6707. Rate of Wages for Laborers and Mechanics, 41 U.S.C. § 3142. Contracts for Materials, Supplies, Articles, and Equipment Exceeding $10,000, 41 U.S.C. §§ 6501-6511.
[70] Based on FY 2017 FPDS-NG data collected and analyzed by Bloomberg and the Section 809 Panel staff.
[71] "Berry Amendment FAQ," Defense Pricing and Contracting (DPC), accessed November 6, 2018, https://www.acq.osd.mil/dpap/cpic/ic/berry_amendment_faq.html.
[72] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 167-194 (2018). FY 2019 NDAA, Pub. L. No. 115-262, 130 Stat. 2139 (2018).

DoD to procure readily available products, and these programs have the potential to stunt, rather than encourage, small business growth.

As discussed in the *Volume 1 Report*, set-asides and other small business programs incent small businesses to make extraordinary efforts to remain small.[73] Setting-aside all procurements under a certain dollar threshold does not encourage a small business to grow beyond that threshold, especially if that business relies on competing for procurements that are currently set aside for small business. Outgrowing the size standard makes those businesses ineligible to compete for the same contracts that, in many cases, were critical to the success of the small business. Using a price preference and requiring DoD to continue to meet the overarching small business use goal established by SBA will ensure the same amount of DoD dollars are invested in small business, while allowing capable small businesses to grow and compete for opportunities. Such a requirement could help achieve Congress's direction to DoD to "create opportunities and a pathway for small businesses to grow and compete for future DoD contracts as larger entities" where set-asides fall short for one reason or another.[74]

The Section 809 Panel is not recommending that readily available products and services be exempt from mandatory sourcing required by FAR Part 8; however, prime contractors would not be required to procure from mandatory sources any products or services that may be included in the readily available solution that is being provided to DoD.[75] Readily available products and services have established supply chains and DoD should not be requiring contractors to develop unique supply chains, unless there is a national security-related basis for the requirement, which could necessitate customization or development that would make using these procedures inappropriate.

Pricing and Value

Most of the readily available products and services that DoD acquires are available from multiple sources, with publicly posted prices. In those cases, contracting officers would able to compare available pricing and seek quantity or preferred-buyer discounts to determine price reasonableness. The existing FAR Part 13 procedures for determining price reasonableness are available to contracting officers in the proposed readily available procedures. In addition to those factors, contracting officers need to be able to rely on input from the requirement owner and consider value to the end user when existing pricing information may not be adequate to make a timely price reasonableness determination.

Value relative to price, not cost, is what matters in the private sector. Many companies that sell products that are expected to perform a certain function at a high standard invest substantial amounts of time, energy, and money in research, design, and the development of their intellectual capital. Technology companies like Apple, Microsoft, and Samsung price their products based on the capabilities their products provide and the value those capabilities provide to the consumer. If DoD wanted to buy an iPhone in 2006, a contracting officer would not have had a similar product, previous purchases, or earlier iterations of the iPhone against which to compare the price. In the case of a *first-mover*, like Apple in the touchscreen smartphone arena, contracting officers should seek input from end

[73] Section 809 Panel, *Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 176-177 (2018).
[74] FY 2017 NDAA, Senate Armed Services Committee Report, S. Rept. 114-255, May 18, 2016, accessed August 30, 2018, https://www.congress.gov/congressional-report/114th-congress/senate-report/255/1.
[75] *See,* Contract Clause, FAR 8.005. Contractor Qualifications Provisions and Clauses, FAR 52.208-9.

users or requirements owners as to whether a product or service represents value to the mission at the price being offered. This determination by the requirement owner could be a critical component of contracting officers' price reasonableness determination. Even in the case of emerging technologies, cost or pricing data and *other-than* cost or pricing data, should not be requested from vendors. Pricing of readily available products and services will need to be emphasized in training curriculum for DoD acquisition professionals when implementing this recommendation.

Contracting officers should contact vendors found through market research and bargain for quantity discounts, preferred customer discounts, or other benefits such as free shipping and extended warranties. In the consumer and business-to-business e-commerce world, vendors use unique discount or customer codes that provide better pricing or other benefits for recurring and high-volume customers. For example, Home Depot negotiated a standard discount for DoD which is automatically captured at the point of sale when the GPC is used.[76]

Transaction Methods

The transaction methods and terms and conditions used by DoD were often cited by stakeholders as the most challenging part of doing business with DoD. The example provided in the Vern Edwards quote at the beginning of this section is typical of many federal government commercial procurements. Time, energy, and cost are expended across the system unnecessarily—time is not valued. It is difficult to understand how 47 pages of documentation, with 500 more pages incorporated by reference, are really necessary for the federal government to manage the risk associated with purchasing $18,000 in sleeper sofas.[77] Most of the content in those 47 pages likely comprised boilerplate clauses, provisions, and terms and conditions, but it still took man-hours to assemble, review, and publish. This drill provides little benefit to the agency or the tax payer and deters new entrants from doing business with the government.

A phone call to a number of local sources, or an Internet search could have identified multiple potential sources willing to sell the needed product at a reasonable price. A simple credit card transaction would have saved time and resources, returned a rebate to the agency, and achieved the desired results.[78] The competitive nature of the market place and the terms and conditions offered by sellers in the readily available marketplace adequately mitigate most risks associated with buying these products. This recommendation would provide agencies with the authority to issue GPCs to contracting officers with a credit limit up to their warrant or the $15 million threshold, if the contracting officer's warrant exceeds that threshold.

This proposal leaves the micro-purchase threshold and procedures in place so that contracting officers may continue to issue purchase cards and delegate the authority to make purchases that fall below the

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[76] *See,* "Solutions for Government Buyers," Home Depot, accessed August 27, 2018, https://www.homedepot.com/c/Government_Customers.

[77] "This is What is Wrong with Government Contracting," Vern Edwards, Wifcon Forums and Blogs, September 3, 2016, accessed July 23, 2018, http://www.wifcon.com/discussion/index.php?/topic/3712-this-is-what-is-wrong-with-government-contracting/&tab=comments#comment-33249.

[78] In FY 2012 alone, the GPC rebates totaled $306 million, which would increase dramatically if GPC use was expanded to purchase readily available products and services up to $15 million. *See*, "SmartPay Benefits," GSA, accessed August 7, 2018, https://smartpay.gsa.gov/content/about-gsa-smartpay#sa26.

micro-purchase threshold to operators and end users outside of the contracting office.[79] The vast majority of DoD's transactions fall below the recently increased micro-purchase threshold.[80] Maintaining the capability for cardholders in a military unit to procure needed supplies and services that fall below the micro-purchase threshold is an effective force multiplier and efficient means of quickly acquiring capabilities.

The contracting officer would be able to execute transactions using the GPC, without the need for an underlying purchase order or existing contract vehicle. This situation is an obvious expansion of the traditional use of the GPC as a way of delegating buying authority for purchases under the micro-purchase threshold to cardholders within operational units outside of the contracting office. The U.S. Air Force instruction governing the use of the GPC currently states that the GPC is also the preferred payment method for placing task and delivery orders against prepriced contracts if authorized in the contract or agreement, and for contract payments on fully funded contracts for which it is advantageous to the government and the contractor accepts the GPC.[81] Air Force contracting officers are also authorized to make purchases from non-DoD contract vehicles with the GPC up to the Simplified Acquisition Threshold.[82] Using the GPC to make purchases of readily available products and services would maximize rebates to the agency, provide immediate payment to vendors, and would provide additional risk mitigation in the form of dispute resolution through the financial institution that issues the purchase cards.

In some cases, such as commercial software licensing agreements, there may need to be some standard government terms and conditions developed through the Office of Federal Procurement Policy Act rule-making process that would apply to all readily available transactions, but these terms and conditions must be kept to a minimum.[83] There also may be cases for which it is advantageous to DoD, and consistent with industry practices, to issue an RFP or purchase order with a DFARS 252.213-1 clause similar to the reduced FAR 52-212-4 clause described in the *Volume 1 Report*.[84] None of these clauses would be required to flow down to vendors' supply chains, which are likely made up of existing, often long-term, agreements. The contracting officer would have the flexibility to issue the RFP directly to the sources identified during market research, or post it publicly for a period of time that the contracting officer determines to be reasonable. DoD prime contractors subcontracting for readily available products and services in support of a FAR Part 15 defense-unique development contract would not be required to flow-down any clauses. Requirements the prime contractor needs to meet and any vendor within the supply chain needs to meet, must be treated as requirements and included in the requirements documents.[85]

[79] Actions At or Below the Micro-Purchase Threshold, FAR 13.2.
[80] Per Section 829, FY 2019 NDAA, Pub. L. 115-262, 130 Stat. 2139 (2018), the MTP is now $10,000.
[81] AFI 64-117, *Government Purchase Card Program*, June 22, 2018, 8, accessed November 2, 2018, http://static.e-publishing.af.mil/production/1/saf_aq/publication/afi64-117/afi64-117.pdf.
[82] Ibid.
[83] Office of Federal Procurement Policy Act of 1974, Pub. L. No. 93-400 (1974).
[84] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 32-42 (2018).
[85] This is an extension of Recommendations 62 and 63.

Transparency and Accountability

Transparency in federal procurement is currently achieved by posting opportunities on FedBizOps and post-procurement data in the Federal Procurement Data System-Next Generation (FPDS-NG), USAspending.gov, and through protests. Currently, only through protest litigation does that transparency include information regarding the extent to which officials followed the procurement rules established by statute and regulation. FedBizOps, FPDS-NG, and USAspending.gov data do not provide any insight into why a specific contract award was made. In the existing system, only *interested parties* may file either preaward or postaward protests to elucidate the decision-making process to ensure that the appropriate statutes and regulations were followed. Protests come at a cost to the interested parties who file protests, the agency, and the procurement system.

To achieve transparency and accountability in this recommendation, contracting officers would be required to post to a centralized public website, within 3 business days, each award made. FPDS-NG or FedBizOps could be modified to receive and display this data or a separate website could be created. Postings would include the products or services procured and the price paid. They would also include the results of contracting officers' market research efforts and a short award decision document when the award was based on factors other than price. When the award was based entirely on price, an abstract of the pricing found during market research would be sufficient to document how the award decision was made. If posting each procurement presents an operational security risk, the contracting officer could delay publishing for up to 60 days. The minimal documentation required should already be stored electronically and would only require uploading to a web-accessible database. This process would provide public access to much more DoD procurement information than is currently available. Industry and government oversight groups would be able to examine DoD and individual contracting activity compliance with these procedures and call out instances of bad behavior to appropriate officials.

This recommendation would eliminate the opportunity for preaward protests in cases for which contracting officers select a source based on market research or direct solicitation. Because solicitations or RFPs would not be publicly posted, there would be nothing to protest. This proposal would limit postaward protests to complaints filed with the competition advocate for the contracting activity. There would be only two bases for protests or complaints: the product or service procured was not readily available or the contracting officer failed to conduct market research in accordance with the readily available procedures. Competition advocates would be given authority, through the chief of the contracting office, to direct contracting officers to cancel purchases and return products, if they have been delivered but not consumed, or cancel services when doing so is in the best interest of the government. Contracting officers would be required to redo the procurement through proper market-based competition. Competition advocates should play a role in ensuring adequate market research is being accomplished and contracting officers are seeking the best products and services that provide the best value to DoD. All contracting personnel (including the competition advocate) responsible for procuring readily available products and services would require enhanced market research and private-sector pricing training.

Conclusions: Readily Available

Aligning DoD's procurement policies and practices with the state of today's marketplace is the overarching goal of this recommendation, and to do so requires changes that are revolutionary,

compared to today's processes, in how DoD thinks about competition, pricing, market research, and transparency. Small business policies, which are focused on meeting quotas through indiscriminate set-asides and reservations, are not benefiting DoD or small businesses in a way that ensures DoD has access to a robust, innovative, and globally competitive small business vendor-base. The example of a 47-page solicitation for a simple commercial buy further demonstrates the extent to which the existing system fails to keep pace with a dynamic marketplace, makes DoD an unappealing business partner, and requires Congress to create work-arounds for DoD acquisition to remain relevant. Rather than continuing to determine how to circumvent the acquisition system, it is time to overhaul the acquisition system, especially for procuring those products and services that are readily available in the marketplace. This substantially streamlined approach to procuring these products and services requires statutory changes, regulatory changes, and a culture shift away from buyers perfecting a process to buyers delivering the right capabilities to warfighters inside the turn of near-peer competitors and nonstate actors.

Some of the readily available products DoD requires must meet flight safety, cybersecurity, and other standards peculiar to that product or class of products and the systems of which they ultimately become a part. These standards may be addressed by qualifying vendors, creating approved product lists, and incorporating them into the requirements package. It is the requirement owner that understands what assurances are necessary for a given product. The commercial airline industry maintains fleets of aircraft at a very high reliability rate with airlines procuring and installing parts on a regular basis. DoD requirements, even when it comes to sustaining weapon systems, are no longer unique, and reliable business practices exist in the private sector that DoD could learn from and must seek to emulate if it is going to maintain sufficient access to those markets. This proposal seeks to move DoD and federal procurement in that direction.

Discussion: Readily Available with Customization

> *Updating DoD procurement practices will be the difference between a U.S. military that benefits from commercial innovation and one that is superseded by it.*
>
> *- Ben Fitzgerald and Katrina Timlin, War on the Rocks*[86]

CNAS's *Future Foundry* paper, the foundation for the Dynamic Marketplace concept, argues that DoD "does not possess a viable, standardized method to acquire commercial technologies, adapt them for military purposes, and incorporate them into CONOPs, doctrine, and training at scale."[87]

This general indictment of the acquisition system focuses on DoD's inability to acquire customized commercial or private-sector technologies and services, and this recommendation proposes a necessary step in filling that gap. As explained in the *Volume 1 Report*, increased use of streamlined commercial buying procedures and commercial-specific terms and conditions has been a priority for Congress and

[86] "Time for a Private-Sector Pivot on Military Technology," Ben FitzGerald and Katrina Timlin, War on the Rocks, May 14, 2015, accessed August 8, 2018, https://warontherocks.com/2015/05/time-for-a-private-sector-pivot-on-military-technology/.
[87] Ben FitzGerald, Alexandra Sander, and Jacqueline Parziale, Future Foundry: A New Strategic Approach to Military-Technical Advantage, Center for New American Security, December 2016, 22, accessed October 12, 2018, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-FutureFoundry-final.pdf?mtime=20161213162640.

DoD since the passage of FASA in 1994. Despite this focus by Congress and DoD, commercial-item spending declined by 29 percent between FY 2012 and FY 2017.[88] This decline is attributable to the expansion of commercial contract terms and conditions, confusing definitions and policies, and criticism of DoD's navigation of this complex web by DoD IG and GAO.[89] The Section 809 Panel's proposal for procuring readily available products and services eliminates complex commercial product and service definitions in favor of the terms *readily available* and *readily available with customization*. The intent is to simplify even the concept of customization, so that a formal *determination* is not necessary for contracting officers and prime contractors to use the simplified procedures included in this section to purchase readily available products and services and readily available products and services that are customized for DoD.

The Section 809 Panel proposes that a product or service is readily available unless DoD is funding the development and the product or service is something that only defense entities would procure. Challenges to whether a product or service is readily available or readily available with customization would require the challenger to prove the product or service does not fit into these two categories. If a contracting officer or prime contractor followed a rational and reasonable process for determining a product or service is readily available, reviewers, whether they be from DCMA, DCAA, or the IG, may not substitute their judgement for that of the contracting officer or prime contractor.[90] These fundamental shifts in how DoD does business are essential in changing the acquisition system so warfighters benefit from commercial innovation, rather than become casualties of it.

The Section 809 Panel defined customization in the *Volume 2 Report*. The definition of customization is bifurcated into customization for products and customization for services, based on a similar rationale for the panel's recommendation to bifurcate the commercial item definition.[91] For products customization means

> *Changes, beyond optional, priced product features, made to a readily available product to meet a DoD need using commercial processes and equipment; or the manufacturing of a product based on a specification using only commercial processes and equipment.*[92]

Services are considered customized when

> *A performance work statement, statement of objectives, or other form of direction about how to perform the services is necessary to identify the services to be performed.*[93]

Although the category of services that meets the definition of readily available, discussed above, may be small, nearly all of the services DoD procures should meet the definition of readily available with customization. Everything from janitorial services to engineering services and even armed security

[88] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 16-17 (2018).
[89] Ibid, 17.
[90] See Recommendations 62 and 63 regarding the existing commercial item determinations made by prime contractors.
[91] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 19-20 (2018).
[92] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 181 (2018).
[93] Ibid, 181-182.

services, are regularly contracted for in the private sector with vendors providing customization based on specific customer needs. DoD's need for customization is most often the same or similar to what other customers require. The mere fact of a DoD application of a service does not change the nature of the service. For instance, additively manufactured parts *printed* to meet a military specification, whether procured as a service or as a product, are a prime example of how DoD should be taking advantage of an established private-sector process in an efficient and expedient manner.

There are two circumstances under which DoD requires customization that may be DoD-unique: when services are provided in a combat zone, and in the business arrangement for which DoD acquires services under a cost reimbursable contract. Stakeholders explained that DoD's version of a cost reimbursable contract is inconsistent with private-sector practices. The private-sector application of cost reimbursable contracts does not provide customers with access to a service provider's accounting system to the same extent as DoD. Cost reimbursable contracts in the private sector more closely resemble what DoD would consider time and materials contracts. Despite time and materials contracts being the standard in the industry when fixed price contracts are not appropriate, DoD describes time and materials contracts as the least favorable contract type.[94] If DoD is going to gain access to a broader market of knowledge-based services, especially those offered by experts not affiliated with CAS compliant defense contractors, it must contract in ways that are more consistent with the private sector. The private sector does not track and report costs to customers consistent with what DoD requires under CAS. Their systems comply with generally accepted accounting practices, but more importantly it is extremely rare for a seller of goods and services in the private sector to give the buyer access to their financial systems, much less give them the right to dictate how those systems function.

Even when services are to be performed in a combat zone, which certainly adds risk and cost, the services being performed are typically logistical or base operating support services that are similar to those procured in the private sector. Procuring customized readily available products and, especially, services, will often result in longer-term contractual relationships rather than the more transactional buys characterized by procuring readily available products and services. These different procedures and contract types are aimed at addressing the differences in how the private sector buys and sells. The following are the key elements of this recommendation, and are intended to enable rapid acquisition and, in-turn, rapid fielding of existing private-sector innovation regularly *customized* in the private sector and tailored to DoD's needs.

- **Readily Available Procedures:** Expand the use of a slightly modified version of existing FAR 12 and FAR 13.5 simplified commercial buying procedures to be used when procuring readily available with customization. Additional flexibility to use market-based competition under certain circumstances would also be included, as discussed below. The procedures would be part of the new DFARS Part 213 discussed above.[95] Similar to the existing FAR Part 12

[94] USD(AT&L) Memorandum, *Guidance on Using Incentive and Other Contract Types*, April 1, 2016, 40, accessed November 6, 2018, https://www.acq.osd.mil/dpap/policy/policyvault/USA001270-16-DPAP.pdf.
[95] The Panel has already recommended moving simplified commercial buying procedures into Part 13. This recommendation expands that concept by putting all the simplified readily available procedures in one consolidated and organized location.

limitation, the use of cost reimbursement contracts requiring certified cost or pricing data are prohibited when procuring readily available products and services with customization.

- **Competition:** Market-based competition is still the primary driver of product or service quality and price as well as availability of sources for customized readily available products and services. Publicly posted RFPs or requests for quote (RFQs) would only be required when the value of a procurement is expected to exceed $15 million or the period of performance for a service or requirements contract would exceed 12 months. An RFP or RFQ would typically be necessary to communicate between the buyer and seller so the seller understands the buyer's requirement and the buyer understands how the seller proposes to meet that requirement. When the expected value of the procurement does not exceed $15 million or the contract period of performance is less than 12 months, the contracting officer has the discretion to directly solicit sources found as a result of market research. In many cases, even above this threshold, a publicly posted RFP or RFQ would not increase the competition that already exists in the marketplace and would not add value to the procurement. Where those circumstances exist, the Chief of the Contracting Office could authorize a contracting officer to rely solely on market-based competition despite the value of the procurement exceeding the threshold.

- **Applicable Laws:** The statutory relief that currently only applies to simplified commercial acquisition procedures for commercial buying below the threshold ($7 million) should be expanded to apply to all readily available products and services with customization. In addition, relief from the labor standards of the Davis–Bacon Act, Service Contract Act, and Public Contracts Act as well as domestic preference statutes, BAA and the Berry Amendment, is necessary to leverage the entire marketplace and allow DoD to behave like other buyers. As with buying readily available products and services, a small business price preference for evaluation purposes would be used instead of a small business set-aside program. DoD contracting activities would be required to use small businesses consistent with the small business policy pivot described in the *Volume 1 Report*[96] and directed by the FY 2019 NDAA.[97]

- **Price Reasonableness:** Contracting officers should be able to determine price reasonableness based on competitive quotes or proposals, but prices paid by other DoD buyers for similar products and services and an understanding of private-sector pricing, among other methods, may be necessary. Pricing would not be based on information not available in the marketplace or not normally communicated between buyers and sellers. Specifically, this would mean pricing would not be based on certified cost or pricing data, or other than certified cost or pricing data, that is outside of private-sector norms. Similar to the readily available proposal, contracting officers would be permitted to rely on value determinations by the requirement owner to assist in determining if a price being offered is reasonable.

- **Transaction Methods:** Customized readily available products and services would be contracted for using contract types that do not require contractors to have DoD-approved accounting systems, which are inconsistent with private-sector accounting methods. Contracts consistent

[96] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 167-194 (2018).
[97] Section 851, FY 2019 NDAA, Pub. L. 115-232, 130 Stat. 2139 (2018).

with private-sector practices provide adequate risk management for every consumer including DoD. The terms and conditions should be limited, to the maximum extent practicable, to the Contract Terms and Conditions—Commercial Items clause at FAR 52.212-4 as modified by the Section 809 Panel's commercial buying recommendations in the *Volume 1 Report*.[98] Because customized readily available products and services encompass almost all the services, including construction, that DoD buys, additional clauses may be necessary. To add such additional clauses, the contracting officer must obtain approval from the Chief of the Contracting Office, and any such clauses must be limited to what is actually necessary for a specific procurement. Such clauses must closely approximate standard private-sector terms and conditions to the maximum extent practicable.

- **Transparency and Accountability:** Transparency and accountability are no less important when it comes to procuring customized readily available products and services. The reformed bid protest process recommended by the Section 809 Panel could be used to ensure transparency and accountability continue to be achieved when a publicly posted RFP or RFQ is used.[99] In those cases, the process for procuring customized readily available products and services remains conducive to both preaward and postaward protests to identify situations in which DoD did not follow the law or federal acquisition rules. In situations when a publicly posted RFP or RFQ is not used, market research documentation, a redacted source selection decision document (SSDD), and a copy of the contract would be posted to the public-facing website where readily available procurements are posted.

The new DFARS Part 213 included in this recommendation would consolidate all of the policy guidance necessary for procuring readily available products and services, and customization of those products and services. Architect and engineering contracts would be the one exception. These contracts are solicited and competed through a unique process that the Section 809 Panel does not intend to upset, even though these services neatly fit into the definition of readily available with customization.[100] The intent is to provide contracting officers and other acquisition professionals with an organized and consistent set of procedures for procuring almost all readily available products and services, with or without customization. Some references to other parts of the FAR are inevitable, but should be minimized to avoid the complexity-creep the panel has identified in the trend toward using complex FAR Part 15 procedures where FAR Part 12, 13, or 16.5 procedures are appropriate.[101] In fact, this proposal would require use of RAPs when procuring readily available products and services and readily available products and services with customization. A contracting officer would obtain approval to use other procedures available in the FAR/DFARS. A streamlined process for acquiring customized readily available products and services as defined by this recommendation would enable

[98] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3,* 32-42 (2018).
[99] See Recommendations 66–69.
[100] Construction and Architect – Engineer Contracts, FAR 36.
[101] For example, Contract Clauses, FAR 36.5.

DoD to leverage, for example, 3-D printing and additive manufacturing that does not meet the current definition of commercial products or services.[102]

Competition

Conducting more traditional full and open competitions for readily available products and services with customization may be viewed as more advantageous to the government and competition in general. Yet, conducting traditional full and open competitions not only results in participation by a limited number of competitors, it also creates an environment in which market research and market intelligence are not valued. This approach deprives warfighters access to innovation available in the marketplace. The current full and open competition standard is achieved by simply posting an RFP to FedBizOps and waiting for potential sources that are actively seeking opportunities with the government and understand how to do so, to respond. Instead, DoD needs competition standards that incentivize contracting officers to obtain market intelligence, so they can leverage the continuous competition that exists in the marketplace and provide warfighters with cutting-edge, readily available capabilities tailored for DoD that represent the best value for the dollar. The current full and open competition standard is not effective at achieving this end state.

There are a number of products and services that DoD procures for which there is a limited market and buyers are fully aware of the universe of suppliers that exist. In these cases, publicly posting an RFP or RFQ and waiting 20 or 30 days for quotes or proposals is not going to increase competition or the potential supply sources. Publishing a justification and approval would not increase competition either. An RFP sent directly to each of the known, through market research, suppliers would ensure each is aware of the opportunity to submit a proposal. The same holds true, for example, when only prequalified vendors or original equipment manufacturers (OEMs) may supply a product or provide repair services.

This recommendation establishes a $15 million threshold under which contracting officers may determine when a public solicitation is advantageous to an acquisition or when market-based competition and direct solicitation is most advantageous. The threshold also includes a time factor. The contract's period of performance must not exceed 12 months, for the contracting officer to have discretion in publicly posting the requirement. A chief of a contracting office may authorize a contracting officer to use direct solicitation and market-based competition for procurements that exceed this threshold, when doing so is justified by the nature of the acquisition.

Empowering contracting officers to determine whether publicly posting a solicitation is in the best interests of the government and in the best interest of competition would eliminate process, where process does not add value. It would also make the contracting officers and the requirement owners responsible for seeking out the best solutions from the most capable sources, thus creating a demand for the acquisition workforce to develop the requisite market research and market intelligence skills. These skills are necessary for DoD's acquisition workforce to ensure DoD is benefitting from the most

[102] See Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 20 (2018). This recommendation would expand the commercial products and services definition to enable DoD to utilize commercial additive manufacturing much more efficiently.

effective form of competition, obtaining greater access to the marketplace, and getting the best value for the taxpayer.

Applicable Laws

Readily available products and services should be included under the umbrella of statutory relief currently provided for COTS items, and readily available with customization needs the same statutory relief or at a minimum the same statutory relief currently afforded to commercial products and services. This statutory relief is necessary to conform the way DoD buys with the way the private sector sells. The domestic preferences found in BAA and the Berry Amendment threaten DoD's access to innovative products at reasonable prices due to the prevalence of private-sector reliance on non-U.S., or mixed U.S.–foreign supply chains by much of the private sector, even with customized products or services.[103] The labor rate protections of the Service Contract Act, Davis–Bacon Act, and Public Contracts Act (formerly Walsh–Healey Act) pose the same problems as well, and actually have minimal effect on labor rates in today's market as compared to the market when they were enacted.[104] Today unemployment is at a historical low and there is a shortage nationwide of skilled labor.

It may be even more critical in the world of customized readily available products and services, for small and nontraditional businesses, unable to source U.S.-made components for readily available products, to be able to compete for DoD contracts. DoD has a number of legacy systems with electronic, and other types of parts, that OEMs no longer produce or are willing to repair at a competitive price, yet they could be replaced or repaired by a larger pool of available small and nontraditional sources in the marketplace. To take advantage of this opportunity, DoD would need to assess which parts, for strategic national security or industrial base purposes, require certain elements to be sourced domestically, rather than a blanket application of the domestic sourcing statutes, alleviating the need to pursue waivers when the products are not available domestically. This would shorten the time it takes to get capability to warfighters.

Because almost all services DoD procures, to include construction, would meet the definition of customized readily available products and services, this recommendation would effectively relieve DoD of enforcing compliance with the Davis–Bacon and Service Contract Acts through government contracts/transactions. Yet, as noted above, the safety and wage standards required by OSHA and FLSA would continue to apply without including them as specific terms and conditions in each transaction. Using the readily available with customization buying vehicle should also expand opportunities for small businesses to compete for projects for which Davis–Bacon or Service Contract Act wages are out of synch with actual private-sector rates.[105] Maintaining accurate wage rate determinations has proven almost impossible for the Department of Labor; the last DoD IG review found that 46 percent of nonunion-provided data used in establishing Davis–Bacon wage

[103] Buy American Act, 41 U.S.C. §§ 8301-8305. Requirement to Buy Certain Articles from American Sources; Exceptions, 10 U.S.C. § 2533a.
[104] Service Contract Labor Standards, 41 U.S.C. §§ 6701-6707. Rate of Wages for Laborers and Mechanics, 41 U.S.C. § 3142. Contracts for Materials, Supplies, Articles, and Equipment Exceeding $10,000, 41 U.S.C. §§ 6501–6511.
[105] GAO also found that in 2010, about 63 percent of DOL's published wage rates were effectively the union-prevailing rate, but only 14 percent of construction workers nationwide were represented by unions. *See,* GAO, *Davis–Bacon Act: Methodological Change Needed to Improve Wage Survey, GAO-11-152,* March 22, 2011, 18, accessed November 2, 2018, www.gao.gov/products/GAO-11-152.

determinations were decades old.[106] It is difficult for small businesses to pay wages competitive in a private-sector market on private-sector projects, while also paying, tracking, and reporting inflated wages on public projects.

Small business reservations and set-asides pose the same problems for DoD and the market regardless of whether DoD is procuring readily available or readily available with customization products and services. There are no data to evaluate the price preference DoD pays due to reservations or set-asides, making it impossible to compare the effect of the 5 percent price preference recommended by the Section 809 Panel. The current set-aside practice limits competition to only those vendors who qualify for the set-aside; therefore, DoD has no reference as to what a large or midsize company might have proposed for a given procurement.

The Section 809 Panel is not recommending readily available products and services be exempt from mandatory sourcing required by FAR Part 8. This recommendation would not affect the government's requirement to use sources of supply like AbilityOne and Federal Prison Industries.

Pricing and Value

Many stakeholders inside and outside of DoD observed that DoD has never developed expertise in how the public sector determines pricing. The absence of expertise in the government results in requests for certified cost or pricing data, and information other than cost or pricing data that closely resembles certified cost or pricing data. The desire for cost or pricing data to help justify a price reasonableness determination appears to be one of the factors contributing to reduced use of commercial buying procedures. This recommendation would prohibit requesting any cost or pricing data from suppliers of readily available products and services, including those being customized for DoD. Successful implementation would require improved pricing, market research, and market intelligence training for acquisition personnel in the contracting and program management communities.

Elements that contracting officers should consider when pricing readily available and customized readily available products and services are included in the recommended DFARS 213. These elements are very similar to those listed in the existing FAR Part 13, and approximate commercial or private-sector means for accomplishing price analysis. Rather than relying on suppliers to validate their price for a product or service with cost, pricing, or sales data, DoD is capable of using available market intelligence, technical analysis provided by the requirement owner, and data collected from similar previous procurement actions to make price reasonableness determinations. Requirement owners must be involved with contracting officers in determining at what price certain capabilities represent value to the mission. Understanding the value and capability provided by a customized, readily available product or service is more determinative of a fair and reasonable price than a cost build-up. Cost build-ups required by cost reimbursement contracts are complex and expensive, and those costs are passed on to DoD and taxpayers. Given DoD's general inability to determine whether direct costs and indirect costs are fair, these exercises devolve to a determination of whether the profit being earned is appropriate. In the world of readily available, the government should not expect to tell a seller that its

[106] GAO, *Davis–Bacon Act: Methodological Change Needed to Improve Wage Survey, GAO-11-152,* March 22, 2011, 18, accessed November 2, 2018, www.gao.gov/products/GAO-11-152.

profit is too high. DoD's focus on limiting profit margins—an odd focus in a capitalist society—creates a barrier to doing business with DoD according to many of the companies with which the Section 809 Panel spoke.

Across the DoD acquisition enterprise, there are organizations that have implemented advanced market intelligence practices in procuring readily available products and services, with or without customization. The Air Force Installation Contracting Agency (AFICA), for example, has invested in commercially available market intelligence reports and developed the Air Force Business Intelligence Tool to better understand private-sector markets and the government's buying practices.[107] Using market intelligence and understanding of the Air Force's existing buying practices to inform AFICA's category management project, AFICA claims to have saved more than $1 billion.[108] The savings that could be realized across DoD with the expansion of market-intelligence-driven initiatives like AFICA's, combined with the streamlined procedures in this proposal, would not only improve DoD's ability to access customized private-sector technology, but also free up resources for allocation to more complex weapon systems.

Under these simplified procedures, contracting officers would be encouraged to bargain with vendors for a better price, additional features, more favorable delivery terms, or for other terms that provide value to the acquisition. DoD may be more interested in obtaining or bargaining for IP and data rights for products and services customized for a DoD purpose than for readily available products and services that are purchased as offered. In the July 2017 GAO report on military acquisition, nine of 12 nontraditional companies identified IP rights as a barrier to seeking business opportunities with DoD.[109] DoD must better understand the value of IP associated with readily available products and services and the customization DoD might require and develop greater sophistication in how it contracts for and intends to use that IP.

Transaction Methods

Expanding on the transaction methods prescribed for readily available products and services, customized products and services would more often than not require written RFPs or RFQs to articulate requirements and terms and conditions. A contract or possibly a simple purchase order would document the transaction. This practice is not inconsistent with the private sector. Private-sector buying practices deviate from DoD's in the selection of sources. Companies only solicit from the sources they choose to solicit. This proposal expands the use of direct solicitation and reliance on market-based competition to ensure that DoD considers the entire marketplace, not just those who already understand how to do business with DoD. Procurements above $15 million dollars, or when

[107] "The AFICA Business Intelligence Competency Cell: 'Bringing Life' to Mission Innovation," Brian Ripple, Wright-Patterson AFB, January 9, 2017, accessed September 14, 2018, https://www.wpafb.af.mil/News/Article-Display/Article/1044960/the-afica-business-intelligence-competency-cell-bringing-life-to-mission-innova/.
[108] "AFICA Hosts 2018 Enterprise Sourcing Summit, Aims to Save $2B," John Herrington, Wright-Patterson AFB, July 19, 2018, accessed September 14, 2018, https://www.wpafb.af.mil/News/Article-Display/Article/1579241/afica-hosts-2018-enterprise-sourcing-summit-aims-to-save-2b/.
[109] GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, 18, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.

the period of performance exceeds 12 months, contracting activities would be required to publicly post RFPs and RFQs for a minimum of 10 days.

Many procurements that do not exceed this threshold would also result in publicly posted solicitations, when contracting officers determine that doing so is in the best interest of the government. These RFPs must be simpler and more straightforward than what DoD currently employs. The Section 809 Panel's efforts in the *Volume 1 Report* to minimize the commercial terms and conditions included in commercial solicitations and the resulting contracts are being expanded for use in procuring readily available products and services with customization. No clauses included in contracts for readily available products and services should be flowed down to the private-sector supply chains these vendors rely on, otherwise DoD will remain excluded from accessing certain companies and the capabilities they offer. For instance, one company that participated in the 2017 GAO study stated that a supplier turned down a $20 million performance-based logistics contract because of the difficulty in managing all the unique federal contract clauses.[110]

Even though the products and services are customized for DoD, the customization is being accomplished using private-sector equipment and processes, and the products or services being customized are readily available in the market. Customization of these products and services is contracted for daily in the marketplace and buyers and sellers are able to sufficiently manage risk, agree on price, and ensure delivery of the agreed on outcome without some of the unique hurdles presented by DoD's acquisition process. As discussed above, DoD does not need cost reimbursement contracts to determine price reasonableness, and there are other contracting options available for those situations for which a requirement is not well defined.

When buying readily available products and services, like the current commercial buying policies, the preferred contract type is a firm-fixed-price contract or fixed-price with economic price adjustment contract.[111] The FAR allows for use of a time and materials contract for procuring certain commercial services.[112] This recommendation would apply similar limits on the contract types that may be used to procure customized readily available products and services. The available contract types are firm-fixed price; fixed-price with economic price adjustment; firm-fixed price level-of-effort; and time and materials.[113] DoD procures a substantial portion of its services as noncommercial, outside of FAR Part 12, and uses cost-reimbursement contracts. To behave more like the private sector, eliminate additional costs and complexity, and to ultimately reduce barriers to entry, DoD must shift its preference for cost reimbursement contracts to a preference for time and materials contracts for which fixed-price contracts are not possible.[114] Time and materials contracts may also be appropriate when a readily available product requires further development that is of a commercial, not defense-unique, nature.

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[110] Ibid, 16.
[111] *See,* Acquisition of Commercial Items – Contract Types, FAR 12.207(a).
[112] Ibid.
[113] *See,* Types of Contract, FAR Part 16.
[114] Most of the 12 non-traditional companies interviewed by GAO for its July 2017 report, stated that DoD had expressed interest in further developing a commercial product they offered for sale, but they did not enter into contract with DoD to do so. They cited to unique government accounting systems as one of the primary reasons for making that decision. GAO, *Military Acquisitions: DoD is Taking Steps to Address Challenges Faced by Certain Companies, GAO-17-644,* July 2017, 16, accessed October 31, 2018, https://www.gao.gov/assets/690/686012.pdf.

There is flexibility within these contract types that would allow contracting officers to incorporate performance incentives that do not involve complex equations and cost reporting, and this recommendation does not prevent awarding indefinite-quantity contracts or blanket purchase agreements in cases for which they would be advantageous.[115]

The GPC should also be considered as a flexible method for procuring customized readily available products and services. The Undersecretary of the Air Force for Acquisition, Technology, and Logistics, Dr. William Roper, has recognized that the GPC presents DoD with the unique ability to contract for products and services while providing immediate payment, which is critical for transacting with start-ups that may offer innovative solutions to DoD problems but have immediate cash flow requirements.[116] This initiative is an attempt to solve the same problems the Section 809 Panel identified with the existing commercial buying structure and problems this proposal would solve on a broader scale. In many cases, contracting officers should have the discretion to use their GPC, up to their warrant, or other administrative threshold provided by the agency, to procure customized products and services after issuing an RFP or an RFQ and selecting the proposal or quote that represents the best value to the government. Along with the streamlining of terms and conditions and broader outreach as a result of market research, providing notice in the RFP or RFQ that the contracting officer intends to use a GPC to complete the transaction and provide immediate payment, may incentivize vendors to submit an offer.

Transparency and Accountability

Although the simplified procedures do not allow for protests to GAO or the Court of Federal Claims, the simplified procedures for acquiring readily available with customization provides for transparency either through the protest process or as a result of publicly posting the results of a procurement. In situations for which the contracting officer would publicly post an RFP or RFQ, GAO and the Court would have jurisdiction over any preaward protest that might be filed, and any postaward protest as a result of the contract award.[117] The process described above for readily available procurements would apply in situations for which the contracting officer is authorized to use market-based competition. In addition, if the contracting officer issues an RFP or RFQ, even directly to a limited number of vendors, those in receipt of the solicitation maintain a right as an interested party to file a postaward protest.

The postaward publication of the contract award, the market research documentation, and a redacted SSDD would be required any time a solicitation is not publicly posted. This process would ensure adequate transparency into the government's actions in situations for which time is a critical factor or a publicly posted solicitation adds no value to the procurement, and the contracting officer is authorized to use market-based competition. Procurement actions that are not adequately supported by the publicly posted documentation, would undoubtedly draw scrutiny from industry, public interest

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[115] The complicated fixed-price incentive contracts found in FAR 16.403 are not what is contemplated here. Instead, contracting officers should be able to offer and negotiate performance or delivery incentives where certain performance characteristics or delivery timelines would provide added value, but there is also added risk for the contractor.

[116] "Air Force Busts Out Credit Cards to Buy High Tech Gear," Paul Mcleary, Breaking Defense, September 19, 2018, accessed September 21, 2018, https://breakingdefense.com/2018/09/air-force-busts-out-credit-cards-to-buy-high-tech-gear/?utm_source=Sailthru&utm_medium=email&utm_campaign=ebb%2009.20.18&utm_term=Editorial%20-%20Early%20Bird%20Brief.

[117] Recommendations 66–69 are critical to ensuring protests meet their intended purpose, and is how the Panel envisions protests being adjudicated in this framework.

groups, the agencies, and Congress. This proposal would allow for greater transparency than is present in the existing acquisition system, while also providing DoD the discretion necessary to rapidly acquire and field customized private-sector products and services that fill DoD capability gaps.

Conclusions: Readily Available With Customization

The ability to effectively procure readily available products and services and leverage actual market-based competition will thrust DoD procurement into the information age and have it poised to make the next leap into the artificial intelligence age. If DoD's procurement system is going to achieve the outcomes required of it by the national security challenges the nation faces, certain long-held institutional perceptions of public procurement must be completely reimagined. This proposal reduces or eliminates barriers to entry, provides for flexibility and agility, values time, and eliminates processes that do not add value to the system. These are bold changes, which will not be welcomed by those who benefit from the idiosyncrasies of the existing system and those who view this proposed approach as an abandonment of socioeconomic and domestic preference programs. But defense acquisition is the business of providing lethality to a Joint force responsible for conducting full-spectrum combat and noncombat operations.

These changes are necessary to ensure DoD is able to efficiently access the extraordinary advances in technology and innovation present in the private sector that is led by small businesses and nontraditional sources and enables DoD to shift resources to its more complex procurements. These recommendations would achieve the goal of allowing DoD to behave the way buyers in the private sector behave, increasing access to and speeding delivery of readily available capabilities, and improving the lethality of the Joint force. A revolution of this scale is necessary to remain at the cutting edge of technology and innovation. The Section 809 Panel's recommendations would allow DoD to employ innovation in defense instead of being the victim of that innovation employed by others.

Implementation

Legislative Branch

- Amend Title 10 by creating a statutory authority for DoD to procure readily available products and services and readily available products and services with customization via the simplified readily available procedures outlined in this recommendation.
- Amend Title 10 Competition in Contracting Act provisions to include market-based competition as the preferred method for achieving competition when DoD is procuring readily available products and services and readily available products and services with customization.
- Amend Title 10 Competition in Contracting Act provisions to include merit-based selection as a means of satisfying competition requirements.
- Repeal Title 10 provisions related to procurement of commercial products and services.
- Revise Title 10 provisions to remove the terms commercial products, commercial services, and nondevelopmental items and replace them with readily available products and services and readily available products and services with customization.

Executive Branch

- Amend DFARS Part 205 to implement procedures for market-based competition.
- Amend DFARS Part 213 and repeal DFARS Part 212to implement procedures for acquiring readily available products and services and readily available products and services with customization.
- Publish a DFARS clause for use as the standard terms and conditions for procuring readily available products and services.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details pages at the end of Section 1.

Implications for Other Agencies

- This proposal will likely reduce DoD reliance on GSA and other governmentwide contract vehicles to procure readily available products and services.
- The Director of OMB and the U.S. Trade Representative will need to renegotiate the public procurement portion of applicable trade agreements to include the concept of readily available products and services and the use of market-based competition for procuring readily available products and services.

Section 1
Marketplace Framework

Implementation Details

Recommendation 35

RECOMMENDED REPORT LANGUAGE

SEC.___01. ACQUISITION OF READILY AVAILABLE PRODUCTS AND SERVICES.

This section would amend title 10, United States Code by inserting a new chapter 247 to facilitate the acquisition of readily available products and services for the Department of Defense (DoD) and would establish a preference for the acquisition of readily available products and services to meet DoD requirements. This section would introduce market-based competition as the preferred method for acquiring readily available products and services, which would enable the Department to function more like other buyers in the private-sector marketplace. To do so, this section would limit the application of certain government-wide and defense specific procurement related statutes to buying readily available products and services, and would require the Secretary of Defense to focus more on the price and value of these products and services than on cost.

The committee recognizes that the current DoD acquisition system, built for a 20th century defense-industrial market, is best suited for developing and procuring conventional products to be used in defined missions against known adversaries. This system has focused on mitigating risk through multiple layers of procedural contract compliance protocols, unlike those found in normal market place transactions. As a result, the barriers to entry for innovative and non-traditional suppliers, in many cases, are insurmountable. The committee is aware that in today's complex security environment, with rapidly changing private-sector developed technology, the Department must be able to deliver a wide variety of warfighting and combat support capabilities as efficiently as possible. Since not all capabilities are acquired in the same way, the Department must adjust its acquisition processes to meet the demands of the diverse markets in which it operates.

This section would address the statutory and regulatory changes necessary to modernize and simplify the Department's acquisition of products and services readily available in the private-sector to ensure the defense acquisition system is agile, efficient, and effective at procuring such products and services offered for sale to the public or other government agencies. It would require the Department to implement new readily available acquisition procedures to be used in place of the existing commercial buying and simplified acquisition procedures. The committee notes that the amendments made by this section are based on recommendations for a new defense dynamic marketplace outlined in Volume 2 (dated June 28, 2018) and Volume 3 (dated January 15, 2019) reports of the acquisition advisory panel established under Section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92).

SEC. ___02. IMPLEMENTATION OF DEPARTMENT OF DEFENSE READILY AVAILABLE ACQUISITION AUTHORITIES.

This section would make a number of conforming amendments to title 10, United States Code to replace the existing commercial buying and simplified acquisition procedures and thresholds with simplified readily available acquisition procedures for procuring readily available products and services and readily available products and services with customization for the Department of Defense. In addition to incorporating market-based competition into the competition requirements for the Department, this section would also establish merit-based selection processes as an acceptable method for achieving competition. This would enable the Department to compete dissimilar readily available products and services as well as products and technologies that require further development. This section would facilitate the implementation of such readily available procedures which would be set out in the new chapter 247 created by section ___01.

For the NDAA provision:
Implementation—These **2 sections** will be implemented in the Defense Federal Acquisition Regulation Supplement and will replace existing simplified acquisition procedures and commercial buying procedures for the Department of Defense.

SEC. __01. ACQUISITION OF READILY AVAILABLE PRODUCTS AND SERVICES.

(a) CHAPTER IN NEW PART V.—

(1) NEW CHAPTER.—Part V of subtitle A of title 10, United States Code, as added by section 801 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232), is amended by striking chapter 247 and inserting the following:

"CHAPTER 247—ACQUISITION OF READILY AVAILABLE PRODUCTS AND SERVICES

Sec.
3451. Definitions.
3452. Acquisition of readily available products and services: preference.
3453. Readily available acquisition procedures: thresholds.
3454. Readily available acquisition procedures: use of.
3455. Procurement of major weapon systems as readily available products: prior determination by Secretary of Defense and notification to Congress.
3456. Acquisition of readily available products and services: inapplicability of procurement related provisions of law and executive orders.

§3451. Definitions

In this chapter:

(1) The term "readily available", with respect to a product or service, means a product or service that requires no customization by the vendor and can be put on order by customers. Such term includes optional, priced features of products and services in a form that is offered for sale in the normal course of business.

(2) The term "customization" means—

(A) with respect to a product—

(i) a change, beyond an optional, priced product feature, that is made to a readily available product to meet a Department of Defense need using commercial processes and equipment; or

(ii) the manufacturing of a product based on a specification using only commercial processes and equipment; and

(B) with respect to a service, that a performance work statement, statement of objectives, or other form of direction about how to perform the service is necessary to identify the service to be performed.

(3) The term "defense-unique development" means a Department of Defense-financed development, either to repurpose a readily available product or solution or to develop a new product or solution, to provide a defense-unique capability.

(4) The term "market-based competition" means the consideration of sources that offer readily available products and services at prices available to any potential buyer, resulting in competition being established through market forces.

(5) The term "market research" means obtaining information about capabilities, products, and services available in the private sector through a variety of means, which may include—

(A) contacting knowledgeable individuals in government and industry;

(B) interactive communication among industry, acquisition personnel, and customers; and

(C) interchange meetings or pre-solicitation conferences with potential offerors.

(6) The term "component acquisition executive" means—

(A) in the case of a military department, the service acquisition executive of that military department; and

(B) in the case of a component of the Department of Defense other than a military department, the authority performing for that component the functions that a service acquisition executive performs for a military department.

(7) The term "value assessment" means an assessment by a requiring activity or program office of the value of a product or service to the requiring activity or program office's mission relative to the price offered that is provided to the contracting officer to aid in determining that a price is fair and reasonable.

§3452. Acquisition of readily available products and services: preference

(a) Relationship to Commercial and Non-Commercial Products and Services.—The Secretary of Defense may not use the term "commercial products and services" or the term "nondevelopmental item", as those terms are defined in title 41, or the authorities associated with those terms, except as described in in this chapter or chapter 137 of this title as applying to—

(1) readily available products and services;

(2) readily available products and services with customization; or

(3) defense-unique development.

(b) Preference.—The Secretary of Defense shall ensure that, to the maximum extent practicable—

(1) requirements of the Department of Defense with respect to a procurement of products or services are stated in terms of—

(A) functions to be performed;

(B) outcome required; or

(C) essential physical characteristics;

(2) such requirements are defined so that readily available products and services may be procured to meet such requirements; and

(3) when offers are publicly solicited, vendors of readily available products and services are provided an opportunity to compete in any procurement to meet such requirements.

(c) Determination to develop or procure defense-unique products.—(1) A defense-unique development product may not be procured if there is a readily available product, with or without customization, that meets the basic requirements of the Department of Defense.

(2) A determination to develop or purchase a defense-unique product shall be made in writing and signed by the program manager and the contracting officer. If there is no program manager, the contracting officer and the head of the requiring activity shall sign the determination.

(d) Readily Available Services.—A service purchased by the Secretary of Defense shall be considered readily available, with or without customization, unless the head of the contracting activity, for a contract valued at $15,000,000 or less, or the component acquisition executive, or the Under Secretary of Defense for Acquisition and Sustainment (as applicable) for a contract valued in excess of $15,000,000—

(1) makes a written determination that the service does not meet the definition of readily available, with or without customization; and

(2) for a contract with an anticipated value of $15,000,000 or less, makes a written determination that the use of procedures other than the readily available

acquisition procedures under section 3454 of this title are more appropriate due to the defense-unique nature of the requirement.

(e) Preliminary Market Research.—(1) The Secretary of Defense shall conduct market research appropriate to the nature of the requirement—

(A) before developing new specifications for a procurement by the Department of Defense;

(B) before soliciting bids or proposals in a case in which a solicitation is required or a determination has been made that solicitations should be used,; and

(C) before awarding a task order or delivery order.

(2) The Secretary of Defense shall use the results of market research to determine whether there are readily available products and services, with or without customization, that—

(A) meet the requirements of the Department of Defense; or

(B) could meet those requirements if those requirements were modified to a reasonable extent.

(3) In conducting market research, the Secretary may not request potential sources to submit more than the minimum information that is necessary to make the determinations required in paragraph (2).

(4) The Secretary of Defense shall ensure that any prime contractor of a contract (or task order or delivery order) in an amount in excess of $5,000,000 for the procurement of items other than readily available products and services engages in such market research as may be necessary to carry out the requirements of subsection (b)(2) unless the prime contractor already has established commercial supply chains in place.

(f) Market Research for Price Analysis.—The Secretary of Defense shall ensure that procurement officials in the Department of Defense conduct or obtain market research to support the determination of the reasonableness of prices for readily available products and services contained in any bid or offer submitted in response to a solicitation. To the extent necessary to support such market research, the procurement official for a solicitation—

(1) in the case of a product or service acquired under section 3455 of this title, shall use information submitted under subsection (d) of that section; and

(2) in the case of other products or services, may require the offeror to submit relevant information only if market research, available market intelligence resources, and a value assessment by the requiring activity is not sufficient to support the price analysis.

(g) Market Research Training and Tools Required.—The Secretary of Defense shall provide mandatory training and tools for members of the armed forces and employees of the Department of Defense responsible for the conduct of market research required under subsections (e) and (f).

(h) Pricing Training and Tools Required.—The Secretary of Defense shall provide mandatory training and tools for the procurement officials responsible for price analysis and value-based assessments under subsection (d) for situations in which competitive price comparison (through comparison of publicly available prices, prior sales data, or prices submitted in response to a solicitation) is not available. Such training shall—

(1) provide comprehensive information on private sector pricing practices and the role intellectual capital and innovation play in private sector pricing;

(2) teach best practices for conducting and documenting price analysis; and

(3) provide means for collecting and sharing prices paid for readily available products and services across the Department.

(i) Implementation.—The Secretary of Defense shall ensure that procurement officials in the Department of Defense, to the maximum extent practicable—

(1) acquire readily available products and services, with or without customization, to meet the needs of the Department;

(2) require prime contractors and subcontractors at all levels under Department of Defense contracts to incorporate readily available products and services, with or without customization, as components of products and services supplied to the Department of Defense;

(3) modify requirements in appropriate cases to ensure that the requirements can be met by readily available products and services, with or without customization;

(4) state specifications in terms that enable and encourage bidders and offerors to supply readily available products and services, with or without customization, in response to Department of Defense solicitations;

(5) revise the procurement policies, practices, and procedures of the Department of Defense not required by law to reduce any impediments in those policies, practices, and procedures to the acquisition of readily available products and services, with or without customization; and

(6) require training of all personnel involved in the acquisition of readily available products and services.

§3453. Readily available acquisition procedures: thresholds

(a)Threshold for the Use of Readily Available Acquisition Procedures.—A procurement official of the Department of Defense shall use the readily available acquisition procedures under section 3454(a) of this title to acquire readily available products and services, with or without customization, in a case in which the value, or anticipated value, of the acquisition is $15,000,000 or less, unless the head of the contracting activity determines in writing that the use of procedures other than the procedures under section 3454(a) of this title is necessary to manage an unusually high risk acquisition.

(b) Threshold for the Use of Market Based Competition.—A procurement official of the Department of Defense may use market based competition and is not required to publicly post a notice of solicitation, notwithstanding the requirements in section 1708 of title 41 and section 8(e) of the Small Business Act (15 U.S.C. 637(e)), when acquiring a readily available product or service, with or without customization, if the value, or anticipated value, of the acquisition is $15,000,000 or less and, in the case of a service contract, if the period of performance does not exceed 12 months.

(c) Authority to Exceed Threshold.—The chief of the contracting office—

(1) may make a determination that readily available acquisition procedures under section 3454 of this title are appropriate for a given acquisition of readily available products or services, with or without customization, when the value, or anticipated value, of the acquisition exceeds $15,000,000; and

(2) may make a determination that market-based competition is appropriate for a given acquisition of readily available products and services, with or without customization, when the value, or anticipated value, of the acquisition exceeds $15,000,000 or the period of performance of a service contract exceeds 12 months.

§3454. Readily available acquisition procedures: use of

(a) When Procedures Are To Be Used.—To promote efficiency and economy in contracting, take advantage of competitive forces in the marketplace, and increase access by the Department of Defense to private sector markets by using procedures that are more consistent with the private sector, the Defense Federal Acquisition Regulation Supplement shall provide for simplified procedures for purchases of readily available products and services subject to the thresholds established in section 3453 of this title. Additional procedures under subsection (h) of this section apply to the acquisition of readily available products and services with customization.

(b) Prohibition on Dividing Purchases.—A proposed purchase or contract for an amount in excess of the threshold specified in section 3453(a) of this title may not be divided into several purchases or contracts in order to use the acquisition procedures provided under subsection (a).

(c) Promotion of Competition Required.—(1) When using the acquisition procedures provided under subsection (a), the Secretary of Defense, to the maximum extent practicable, shall promote competition through the use of market-based competition pursuant to sections 3453(b) and 2304(a)(2)(C) of this title by—

(A) requiring contracting activities to periodically post widespread electronic public notices of anticipated requirements for readily available products and services; and

(B) considering vendors not registered with the Government's award management system provided the contracting officer determines that the vendor is responsible.

(2) In a case in which a contracting officer conducting an acquisition of a readily available product or service expects that competition will be significantly enhanced by solicitation of competitive proposals, the contracting officer may solicit such proposals by—

(A) direct solicitation of sources identified through market research; or

(B) widespread electronic public notice of the solicitation.

(3) When a contracting officer solicits competitive proposals under paragraph (2)(A), the contracting officer may require offerors to respond to the solicitation electronically and may establish a deadline for the submission of proposals in response to the solicitation without regard to any deadline that may otherwise be applicable under another provision of law. Any such deadline for the submission of offers shall afford potential offerors a reasonable opportunity to respond.

(d) Consideration of Offers Timely Received.—The readily available acquisition procedures provided in the Defense Federal Acquisition Regulation Supplement under subsection (a) shall include a requirement that, when a solicitation of competitive proposals is used, the contracting officer shall consider each responsive offer timely received from a responsible offeror.

(e) Evaluation of Prices for Small Businesses.—

(1) A small business concern (within the meaning of section 3 of the Small Business Act (15 U.S.C. 632)) that offers a product or service that meets a requirement of the Department of Defense shall be provided a 5 percent price preference in the evaluation of offers or in comparing publicly available pricing from sources of readily available products and services.

(2) In procuring readily available products and services, the Secretary of Defense shall apply the requirements of this section in preference to applying section 15(j) of the Small Business Act (15 U.SC. 644(j)).

(f) Commercially Acceptable Transaction and Payment Methods.—(1) In the case of contracts entered into using the readily available acquisition procedures provided in the Defense Federal Acquisition Regulation Supplement under subsection (a), procurement officials of the Department of Defense shall use the most efficient, expeditious, and commercially acceptable transaction and payment methods practicable.

(2) In the case of an acquisition of readily available products and services up to the threshold established in 3453(a) of this title, a procurement official—

(1) may use the Government purchase card as a transaction and payment method subject to the limitations of the contracting officer's warrant and Department of Defense purchase card procedures and limitations; and

(2) may not use flexibly priced contracts that require the application of the Government's cost accounting standards or cost principles.

(g) Equitable Distribution.—The Secretary of Defense, in acquiring readily available products and services, with or without customization, as a result of market-based competition shall, to the extent practicable, ensure purchases are distributed equitably among responsible vendors if the products or services they offer provide the same or similar value to the Department of Defense.

(h) Additional Requirements for Acquiring Readily Available Products and Services Valued in Excess of $15 Million.—When a contract is to be awarded for the acquisition of readily available products and services and readily available products and services with customization for an amount in excess of $15,000,000, the contracting officer shall—

(1) publish a notice in accordance with section 1708 of title 41 and, as provided in section 1708(c)(4) of title 41, permit all responsible sources to submit a bid, proposal, or quotation (as appropriate) that the Department of Defense shall consider;

(2) use simplified evaluation factors for award; and

(3) include in the contract file a written description of the procedures used in awarding the contract and the number of offers received.

(i) Transparency and Accountability.—(1) In the case of an acquisition awarded as a result of market-based competition, notice of the award shall be publicly posted within a reasonable period of time after the award is made, taking into consideration operational security. The notice of award shall include—

(A) the purchase order or other record of the transaction that includes quantities and prices of the products or services being acquired;

(B) documentation of market research results, including prices offered by each vendor considered for the award; and

(C) if the award decision is based on factors other than price, a brief description of how the contracting officer made the award decision.

(2) The Comptroller General, notwithstanding sections 3551-3557 of title 31, and the United States Court of Federal Claims, notwithstanding section 1491 of title 28, shall not have jurisdiction to review protests or actions filed in relation to pre-award matters or award decisions resulting from market-based competitions.

(3) Protests may be filed with the competition advocate at the contracting activity. The basis for a protest shall be limited to assertions that—

(A) the product or service procured using readily available procedures was not a readily available product or service, with or without customization, or

(B) the contracting officer failed to conduct market research pursuant to the readily available procedures.

(4) In adjudicating a protest, the competition advocate shall make recommendations to the chief of the contracting office to cancel a procurement made under these procedures and re-procure the readily available products and services when it is in the best interest of the Department of Defense.

(5) The competition advocate shall be responsible for ensuring that the contracting activity—

(A) is performing adequate market research;

(B) considers an appropriate number of vendors; and

(C) meets the requirements of subsection (g).

(j) Micro-Purchase Procedures.—Nothing in this chapter shall affect the ability of the Department of Defense to use micro-purchase procedures for acquisitions below the micro-purchase threshold under section 1902 of title 41.

§3455. Procurement of major weapon systems as readily available products and services: prior determination by Secretary of Defense and notification to Congress

(a) Requirement for Determination and Notification.—A major weapon system of the Department of Defense may be treated as a readily available product or service, or purchased under procedures established for the procurement of readily available products and services, only if—

(1) the Secretary of Defense determines that—

(A) the major weapon system is a readily available product or service; and

(B) such treatment is necessary to meet national security objectives; and

(2) the congressional defense committees are notified at least 30 days before such treatment or purchase occurs.

(b) Treatment of Subsystems as Readily Available Products and Services.—A subsystem of a major weapon system shall be treated as a readily available product or service and purchased under the readily available acquisition procedures under section 3454 of this title if the subsystem meets the definition of a readily available product or service, with or without customization, unless the head of the contracting activity determines in writing that it is in the best interest of the Government not to treat the product or service as readily available.

(c) Treatment of Components and Spare Parts as Readily Available Products and Services.—(1) A component or spare part for a major weapon system shall be treated as a readily available product or service for the purposes of section 2306a of this title if the subsystem meets the definition of a readily available product or service, with or without customization, unless the head of the contracting activity determines in writing that it is in the best interest of the Department of Defense not to treat the product or service as readily available.

(2) This subsection shall apply only to components and spare parts that are acquired by the Department of Defense through a prime contract or a modification to a prime contract (or through a subcontract under a prime contract or modification to a prime contract on which the prime contractor adds no, or negligible, value).

(d) Information Submitted.—(1)(A) To the extent necessary to determine the reasonableness of the price for items acquired under this section, the contracting officer shall require the offeror to submit prices actually paid by other buyers, during the previous six months,

for the same or similar readily available products or services under comparable terms and conditions by both Government and commercial customers.

(B) However, if the contracting officer determines that the offeror does not have access to and cannot provide sufficient information described in subparagraph (A) to determine the reasonableness of price, the contracting officer shall require the offeror to submit information on—

(i) prices for the same or similar items sold under different terms and conditions;

(ii) prices for similar levels of work or effort on related products or services;

(iii) prices for alternative solutions or approaches; and

(iv) other relevant information that can serve as the basis for a price assessment.

(2) An offeror may submit information or analysis relating to the value of a readily available product or service to aid in the determination of the reasonableness of the price of such item. A contracting officer may consider such information or analysis in addition to the information submitted pursuant to paragraph (1).

(e) Value assessment.—In addition to information provided by an offeror under subsection (d), the contracting officer may request and rely on a value assessment provided by the requiring activity or program office to aid in determining the reasonableness of the price of a readily available product or service.

(f) Delegation.—The authority of the Secretary of Defense to make a determination under subsection (a) may be delegated only to the Chief Management Officer, without further redelegation.

(g) Major Weapon System Defined.—In this section, the term "major weapon system" means a weapon system acquired pursuant to a major defense acquisition program (as that term is defined in section 2430 of this title).

§3456. Acquisition of readily available products and services: inapplicability of procurement related provisions of law and executive orders

(a) Inapplicability of Procurement-Related Statutes and Contract Clause Requirements to Contracts for Readily Available Products and Services.— (1) A provision of law that sets forth policies, procedures, requirements, or restrictions for the procurement of property or services by the Federal Government or the Department of Defense shall not apply to a contract by the Department of Defense for the procurement of readily available products and services, with or without customization, unless that provision expressly refers to this section and expressly states that the provision is applicable to such a contract.

(2) The provisions of law that are inapplicable to the procurement of readily available products and services, with or without customization, by the Department of Defense pursuant to paragraph (1) include the following:

(A) Chapter 83 of title 41.

(B) Section 2533a of this title.

(C) Chapter 67 of title 41.

(D) Sections 3141-3144, 3146, and 3147 of title 40.

(E) Chapter 65 of title 41.

(3) A contract clause requirement based on a Government-wide or Defense-specific acquisition regulation, policy, or executive order, not expressly required in law, shall not apply to a contract by the Department of Defense for the procurement of readily available products and

services, with or without customization, unless the acquisition regulation, policy, or executive order expressly refers to this section and expressly states that the acquisition regulation, policy, or executive order is applicable to such a contract.

(4) The Defense Federal Acquisition Regulation Supplement shall include a list of the Government-wide and Defense-specific provisions of law and contract clause requirements described in paragraphs (1) and (3) that are applicable to contracts for the procurement of readily available products and services, with or without with customization. A provision of law or contract clause requirement that is not included on that list shall not be applicable to the procurement of readily available products and services, with or without customization, by the Department of Defense.

(b) Contract Clauses Applicable to the Acquisition of Readily Available Products and Services.—(1) The Defense Federal Acquisition Regulation Supplement shall provide that, for any contract for the acquisition of readily available products and services, with or without customization, entered into using readily available acquisition procedures, all contract clause requirements shall be stated in a single contract clause. No additional Federal Acquisition Regulation or Defense Federal Acquisition Regulation Supplement contract clause or provision may be included in such a contract unless the chief of the contracting office determines that an additional clause is required due to the nature of any customization that is required and that the additional clause is consistent with existing private-sector practices.

(2) No Federal Acquisition Regulation contract clause or provision or Defense Federal Acquisition Regulation Supplement contract clause or provision may be required in a subcontract for the acquisition of readily available products and services under a Department of Defense contract.

(3) In this subsection, the term "subcontract" includes a transfer of readily available products or services, with or without customization, between divisions, subsidiaries, or affiliates of a contractor or subcontractor. The term does not include agreements entered into by a contractor for the supply of commodities that are intended for use in the performance of multiple contracts with the Department of Defense and other parties and are not identifiable to any particular contract.**".**

(2) TABLES OF CHAPTERS.—The tables of chapters at the beginning of subtitle A, and at the beginning of part V of subtitle A, of title 10, United States Code, are amended by striking the items relating to chapter 247 and inserting the following:

''247. Acquisition of Readily Available Products and Services..... 3451''.

(b) CONTINUATION OF APPLICABILITY OF CHAPTER 140 TO NON-DOD AGENCIES.—

(1) COVERED AGENCIES.—Paragraphs (2) and (3) of section 2376 of title 10, United States Code, are amended to read as follows:

"(2) The term 'head of an agency' means the Secretary of Homeland Security and the Administrator of the National Aeronautics and Space Administration.

"(3) The term 'agency' means the Coast Guard and the National Aeronautics and Space Administration.".

(2) REPEAL OF DOD-SPECIFIC PROVISIONS.—Chapter 140 of title 10, United States Code, is amended as follows:

(A) Section 2375 is amended by striking subsections (b), (c), (d), and (e).

(B) Section 2377 is amended by subsections (d) and (e).

(C) Section 2379 is repealed.

(D) Section 2380 is repealed.

(E) Section 2380B is repealed.

SEC. __02. IMPLEMENTATION OF DEPARTMENT OF DEFENSE READILY AVAILABLE ACQUISITION AUTHORITIES.

(a) DEFINITIONS.—Section 2302 of title 10, United States Code, is amended—

(1) in paragraph (2)—

(A) in subparagraph (C)(ii), by striking "lowest overall cost alternative" and inserting "best value";

(B) by striking "and" at the end of subparagraph (D);

(C) by striking the period at the end of subparagraph (E) and inserting a semicolon; and

(D) by adding at the end the following new subparagraphs:

"(F) the procurement of readily available products and services, with or without customization, by the Department of Defense through market-based competition under the procedures for acquiring readily available products and services pursuant to sections 3454 and 2304 of this title; and

"(G) merit-based processes for considering innovative technologies, new capabilities, and existing products and proven technologies proposed as a result of a general solicitation."; and

(2) by adding at the end the following new paragraph:

"(10) The following terms have the meanings provided such terms in section 3451 of this title:

"(A) The term 'readily available'.

"(B) The term 'customization'.

"(C) The term 'defense-unique development'.

"(D) The term 'market-based competition'.".

(b) SIMPLIFIED ACQUISITION PROCEDURES.—Sections 2302a(a) and 2302b of such title are amended by inserting "paragraphs (5) and (6) of" after "named in".

(c) COMPETITION REQUIREMENTS.—Section 2304 of such title is amended—

(1) in subsection (a)(2)—

(A) by striking "and" at the end of subparagraph (A);

(B) by striking the period at the end of subparagraph (B) and inserting a semicolon; and

(C) by adding at the end the following new subparagraphs:

"(C) shall, to the maximum extent practicable, rely on market-based competition to determine sources when—

"(i) the Department of Defense is procuring readily available products and services, with or without customization, with a value, or a period of performance, that does not exceed the threshold specified in section 3453(b) of this title, unless the contracting officer determines that requesting competitive proposals is in the best interest of the Government; or

"(ii) the Department of Defense is procuring readily available products and services, with or without customization, with a value, or a period of performance, in excess of the threshold specified in section 3453(b) of this title, if authorized by the chief of the contracting office; and

"(D) shall use merit-based selection processes or peer reviews when appropriate to identify and acquire innovative, developmental, and existing or proven products and

services through a general solicitation, such as a problem statement, statement of objectives, or broad agency announcement.";

(2) in subsection (d)(3)(B), by inserting before the period at the end the following: "or, in the case of an agency named in paragraphs (1)-(4) of section 2302(a) of this title, when entered into using procedures other than readily available acquisition procedures under section 3454 of this title";

(3) in subsection (g)—

(A) in paragraph (2), by inserting "or the readily available threshold specified in section 3453 of this title" after "simplified acquisition threshold"; and

(B) by adding at the end the following new paragraphs:

"(5) To promote efficiency and economy in contracting, take advantage of competitive forces in the marketplace, and enable the Department of Defense to use business practices that are more consistent with the private sector, the Defense Federal Acquisition Regulation Supplement shall provide for special simplified procedures for purchases of readily available products and services, with or without customization, pursuant to the thresholds specified in section 3453 of this title.

"(6) When using readily available acquisition procedures, the Secretary of Defense shall promote competition by relying, to the maximum extent practicable, on market-based competition pursuant to section 3453(b) of this title."; and

(4) in subsection (i)(3), by striking "an item of supply" and all that follows and inserting "a readily available product or service, with or without customization, acquired using readily available acquisition procedures.".

(d) CONTRACT EVALUATION AND AWARD PROCEDURES.—Section 2305(a) of such title is amended—

(1) in paragraph (1)—

(A) by striking "In preparing" and all that follows through "head of an agency" and inserting "Except as provided in subparagraph (D), the head of an agency, in preparing for the procurement of property or services,"; and

(B) by adding at the end the following new subparagraph:

"(D) Subparagraph (A) does not apply in the case of a procurement by the Department of Defense using either market-based competition or merit-based selection."; and

(2) in paragraph (2), by inserting ", a procurement by an agency named in paragraphs (1)-(4) of section 2302(a) of this title using readily available acquisition procedures," after "simplified procedures" in the matter preceding subparagraph (A).

(e) COST OR PRICING DATA.—Section 2306a of such title is amended as follows:

(1) Subsection (b) is amended—

(A) in paragraph (1)—

(i) by striking "or" at the end of subparagraph (C);

(ii) by striking the period at the end of subparagraph (D) and inserting "; or"; and

(iii) by adding at the end the following new subparagraph:

"(E) when an agency named in paragraphs (1)-(4) of section 2302(a) of this title is acquiring readily available products and services, with or without customization.";

(B) by striking paragraph (2) and inserting the following:

"(2) MODIFICATIONS OF CONTRACTS AND SUBCONTRACTS FOR COMMERCIAL ITEMS AND DEPARTMENT OF DEFENSE CONTRACTS OR SUBCONTRACTS FOR READILY AVAILABLE PRODUCTS OR SERVICES, WITH OR WITHOUT CUSTOMIZATION.—In the case of a modification of a contract or subcontract for a commercial item that is not covered by the exception to the submission of certified cost or pricing data in paragraph (1)(A) or (1)(B), and in the case of a Department of Defense contract for a readily available product or service, with or without customization, that is not covered by the exception to the submission of certified cost or pricing data in paragraph (1)(A) or (1)(E), submission of certified cost or pricing data shall not be required under subsection (a) if—

"(A) the contract or subcontract being modified is a contract or subcontract for which submission of certified cost or pricing data may not be required by reason of paragraph (1)(A), (1)(B), or (1)(E); and

"(B) the modification would not change the contract or subcontract, as the case may be—

"(i) from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of a product or service other than a commercial item;

"(ii) from a contract or subcontract for the acquisition of a readily available product or service to a contract or subcontract for the acquisition of a product or service other than a readily available product or service; or

"(iii) from a contract or subcontract for the acquisition of a readily available product or service with customization to a contract or

subcontract for the acquisition of a product or service other than a readily available product and services with customization.";

(C) in paragraph (3)—

(i) by striking "NONCOMMERCIAL MODIFICATIONS" in the paragraph heading and all that follows through "expected to cost" in subparagraph (A) and inserting "NONCOMMERCIAL MODIFICATIONS OF COMMERCIAL ITEMS AND READILY AVAILABLE PRODUCTS AND SERVICES FURTHER DEVELOPED FOR A DEFENSEUNIQUE PURPOSE.—(A) The exceptions in paragraph (1)(B) and (1)(E) do not apply to cost or pricing data on noncommercial modifications of a commercial item, or modifications that require further development of a readily available product or service such that it is repurposed in a defense-unique way for the Department of Defense inconsistent with private sector practices, that are expected to cost"; and

(ii) in subparagraph (C)—

(I) in clause (i), by inserting "or a readily available product or service further developed for a defense-unique purpose by the Department of Defense" before the semicolon at the end; and

(II) in clause (ii), by striking "acquisition of" and all that follows and inserting "acquisition of a commercial item or readily available product or service other than the cost and pricing of noncommercial modifications of such item or defense-unique

development of such product or service for the Department of Defense.";

(D) in paragraph (4)—

(i) by inserting "AND DEFENSE-UNIQUE" in the paragraph heading after "COMMERCIAL ITEM";

(ii) by striking "a military department, a Defense Agency, or another component of the Department of Defense" in subparagraph (A) and inserting "an agency"; and

(iii) by adding at the end the following new subparagraph:

"(D) For purposes of applying the readily available exception under paragraph (1)(E) to the required submission of certified cost or pricing data for the Department of Defense, a product or service that is offered for sale, with or without customization, and that does not require any defense-unique development shall be presumed to be readily available unless the contracting officer makes a written determination that the product or service is not readily available or readily available with customization."; and

(E) in paragraph (5), by striking "recent purchase prices" and all that follows through "in establishing" and inserting "recent actual net prices paid by the Government or any other buyer for the same or similar commercial items or readily available products or services in establishing".

(2) Subsection (c) is amended—

(A) in paragraph (2), by striking "subparagraph (A) or (B)" and inserting "subparagraph (A), (B), or (E)"; and

(B) in paragraph (3), by striking "this paragraph" and inserting "this subsection".

(3) Subsection (d) is amended—

(A) in paragraph (2), by inserting "FOR COMMERCIAL ITEMS" in the paragraph heading after "AUTHORITY"; and

(B) by adding at the end the following new paragraph:

"(3) LIMITATIONS ON AUTHORITY FOR READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION.—The Defense Federal Acquisition Regulation Supplement shall include the following provisions regarding the types of information that contracting officers may require under paragraph (1):

"(A) A reasonable limitation on requests for sales data relating to readily available products and services, with or without customization.

"(B) A requirement that a contracting officer limit, to the maximum extent practicable, the scope of any request for information relating to readily available products and services, with or without customization, from an offeror to only that information that is in the form regularly maintained by the offeror in private sector business operations.

"(C) A statement that any information received relating to readily available products and services, with or without customization, that is exempt from disclosure under section 552(b) of title 5 shall not be disclosed by the Federal Government.".

(4) Subsection (h)(2) is amended by inserting ", readily available products or services, with or without customization," after "commercial items".

(f) CONTRACT FINANCING.—Section 2307(f) of such title is amended—

(1) in the subsection heading, by inserting ", READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION" after "COMMERCIAL ITEMS";

(2) in paragraph (1), by inserting ", readily available products and services, with or without customization," after "commercial items";

(3) in paragraph (2), by inserting ", readily available products and services, with or without customization," after "items"; and

(4) in paragraph (3), by inserting "or private sector" after "commercial".

(g) TECHNICAL DATA RIGHTS.—Section 2320(b) of such title is amended—

(1) in paragraph (1), by striking "commercial item, the item" and inserting "commercial item or readily available product or service, with or without customization, the item, product, or service"; and

(2) in paragraph (9)—

(A) in subparagraph (A), by inserting ", nonreadily available product or service, with or without customization," after "noncommercial item"; and

(B) in subparagraph (B)(i), by inserting ", product, service," after "item".

(h) PROPRIETARY DATA RESTRICTIONS.—Section 2321(f) of such title is amended by inserting "or readily available products or services, with or without customization," after "commercial items".

(i) ACQUISITION OF COMPUTER SOFTWARE.—

(1) Section 2322a of such title is amended—

(A) in subsection (a)—

(i) by striking "noncommercial computer software" the first place it appears and inserting "computer software and software that meets the definition of defense-unique development under section 2302 of this title"; and

(ii) by striking "noncommercial computer" after "life-cycle of the"; and

(B) in subsection (b), by striking "noncommercial computer software" and inserting "defense-unique developmental computer software".

(2) The heading of such section is amended to read as follows:

"§2322a. Requirement for consideration of certain matters during acquisition of defense-unique developmental computer software".

(j) ALLOWABLE COSTS.—Section 2324(l)(1)(A) of such title is amended by striking "commercial items" and inserting "readily available products and services, with or without customization,".

(k) PROHIBITION ON COLLECTION OF POLITICAL INFORMATION.—Section 2335(b) of such title is amended—

(1) by striking "the procurement" and all that follows through "manufactured items," and inserting "all agency procurement actions"; and

(2) by striking "and basic ordering agreements" and inserting "basic ordering agreements, and other transactions".

(l) FISCAL YEAR 2019 NDAA.—The John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232) is amended as follows:

(1) Section 226(b)(3)(C) (10 U.S.C. 2302 note) is amended by inserting ", readily available products or services, with or without customization," after "commercial-off-the-shelf".

(2) Section 866(d) (10 U.S.C. 2321 note) is amended by striking "noncommercial software" and inserting "software that meets the definition of defense-unique development under section 3451 of title 10, United States Code".

(m) FISCAL YEAR 2018 NDAA.—Section 1698 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91; 10 U.S.C. 2302 note) is amended—

(1) in subsections (a) and (b), by striking "section 2377" and inserting "section 3453";

(2) by redesignating subsection (c) as subsection (d);

(3) by inserting after subsection (b) the following new subsection (c):

"(c) READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION.—Not later than 30 days after the implementation of the acquisition procedures for acquiring readily available products and services, with or without customization, under section 3453 of title 10, United States Code, the service acquisition executive responsible for each covered Distributed Common Ground System shall certify to the appropriate congressional committees that the procurement process for increments of the system procured after the date of the enactment of this subsection will be carried out in accordance with section 3452 of title 10, United States Code."; and

(4) by amending the section heading to read as follows:

"SEC. 1698. USE OF READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION, IN DISTRIBUTED COMMON GROUND SYSTEMS.".

(n) FISCAL YEAR 2017 NDAA.—

(1) REVISION TO PILOT PROGRAM.—Section 879 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328; 10 U.S.C. 2302 note) is amended—

(A) in the section heading, by striking "**COMMERCIAL ITEMS, AND TECHNOLOGIES,**" and inserting "**TECHNOLOGIES**";

(B) in subsection (a)—

(i) by striking "defense commercial solutions opening pilot program" and inserting "defense innovative solutions pilot program";

(ii) by striking "innovative commercial items, technologies, and services" and inserting "innovative products, technologies, and services"; and

(iii) by inserting "pursuant to section 2304(a)(2)(D) of title 10, United States Code" before the period at the end;

(C) by striking subsection (b);

(D) by redesignating subsection (c) as subsection (b) and in that subsection—

(i) in paragraph (2), by striking "including fixed-price incentive fee contracts"; and

(ii) by striking paragraph (3) and inserting the following:

"(3) TREATMENT AS READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION.—Notwithstanding section 3451(1) of title 10, United States Code, products, technologies, and services acquired under the pilot program shall be treated as readily available products and services, with or without customization.";

(E) by striking subsection (d);

(F) by redesignating subsection (e) as subsection (c) and in paragraph (2) of that subsection—

(i) in subparagraph (A), by striking "commercial item, technology, or service" and inserting "readily available products or services, with or without customization,"; and

(ii) in subparagraph (B), by striking "commercial item, technology, or service" and inserting "product or service";

(G) by redesignating subsection (f) as subsection (d) and in that subsection—

(A) in paragraph (1), by striking "that is new" and inserting "that uniquely meets a requirement, fills a capability gap, or presents a potential technological advancement or is new"; and

(B) in paragraph (2), by striking "that is new" and inserting "that uniquely meets a requirement, fills a capability gap, or presents a potential technological advancement or is new"; and

(H) by redesignating subsection (g) as subsection (e).

(2) GUIDANCE.—Not later than six months after the date of the enactment of this Act, the Secretary of Defense shall issue guidance for the implementation of the pilot program under section 879 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328; 10 U.S.C. 2302 note), as amended by paragraph (1), within the Department of Defense. Such guidance shall be posted for access by the public.

(o) FISCAL YEAR 2015 NDAA.—Section 843(3) of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291; 10 U.S.C. 2302 note) is amended by striking "includes" and all that follows and inserting "includes a contract for commercial items or readily available products and services, with or without customization, but is not limited to a contract for commercial items or readily available products and services, with or without customization.".

(p) FISCAL YEAR 2009 NDAA.—Section 254 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Public Law 110-417; 10 U.S.C. 2302 note) is amended—

(1) in subsection (b), by striking "commercial sources" and inserting "private sector sources"; and

(2) in subsection (c)(2)(D), by striking "commercially acquired systems" and inserting "readily available products and services, with or without customization or private sector acquired systems".

(q) FISCAL YEAR 2008 NDAA.—Section 805 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181; 10 U.S.C. 2330 note) is repealed.

(r) FISCAL YEAR 2007 NDAA.—Section 852(b)(2)(A)(ii) of the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364; 10 U.S.C. 2324 note) is

amended by striking "commercial item, as defined in section 103 of title 41," and inserting "readily available products and services, with or without customization, as defined in section 3451 of title 10,".

(s) FISCAL YEAR 1996 NDAA.—Section 822(g)(2) of the National Defense Authorization Act for Fiscal Year 1996 (Public Law 104-106; 10 U.S.C. 2302 note) is amended by striking "procurement of items other than commercial items" and inserting "procurement of products or services other than readily available products and services, with or without customization,".

(t) FISCAL YEAR 1992/1993 NDAA.—Section 806(b) of the National Defense Authorization Act for Fiscal Years 1992 and 1993 (Public Law 102-190; 10 U.S.C. 2302 note) is amended by inserting "or readily available products and services, with or without customization, (as defined in section 3451 of title 10, United States Code)" before the period at the end.

SECTIONS AFFECTED BY THE PROPOSAL

[The material below shows changes proposed to be made by the legislative text above to the text of existing statutes. Matter proposed to be deleted is shown in ~~stricken through text~~; matter proposed to be inserted is shown in *bold italic*.]

TITLE 10, UNITED STATES CODE

§2302. Definitions

(2) ***

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(C) the procedures established by the Administrator of General Services for the multiple award schedule program of the General Services Administration if—

(i) participation in the program has been open to all responsible sources; and

(ii) orders and contracts under such program result in the ~~lowest overall cost alternative~~ ***best value*** to meet the needs of the United States;

(D) procurements conducted in furtherance of section 15 of the Small Business Act (15 U.S.C. 644) as long as all responsible business concerns that are entitled to submit offers for such procurements are permitted to compete; ~~and~~

(E) a competitive selection of research proposals resulting from a general solicitation and peer review or scientific review (as appropriate) solicited pursuant to section 9 of the Small Business Act (15 U.S.C. 638)~~.~~;

(F) the procurement of readily available products and services, with or without customization, by the Department of Defense through market-based competition under the procedures for acquiring readily available products and services pursuant to section 3454 and 2304 of this title; and

(G) merit-based processes for considering innovative technologies, new capabilities, and existing products and proven technologies proposed as a result of a general solicitation.

(3) ***

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(10) The following terms have the meanings provided such terms in section 3451 of this title:

(A) The term "readily available".

(B) The term "customization".

(C) The term "defense-unique development".

(D) The term "market-based competition".

§2302a. Simplified acquisition threshold

(a) SIMPLIFIED ACQUISITION THRESHOLD.—For purposes of acquisitions by agencies named in ***paragraphs (5) and (6) of*** section 2303 of this title, the simplified acquisition threshold is as specified in section 134 of title 41.

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§2302b. Implementation of simplified acquisition procedures

The simplified acquisition procedures contained in the Federal Acquisition Regulation pursuant to section 1901 of title 41 shall apply as provided in such section to the agencies named in ***paragraphs (5) and (6) of*** section 2303(a) of this title.

§2304. Contracts: competition requirements

(a)(1) Except as provided in subsections (b), (c), and (g) and except in the case of procurement procedures otherwise expressly authorized by statute, the head of an agency in conducting a procurement for property or services-

(A) shall obtain full and open competition through the use of competitive procedures in accordance with the requirements of this chapter and the Federal Acquisition Regulation; and

(B) shall use the competitive procedure or combination of competitive procedures that is best suited under the circumstances of the procurement.

(2) In determining the competitive procedure appropriate under the circumstances, the head of an agency-

(A) shall solicit sealed bids if-

(i) time permits the solicitation, submission, and evaluation of sealed bids;

(ii) the award will be made on the basis of price and other price-related factors;

(iii) it is not necessary to conduct discussions with the responding sources about their bids; and

(iv) there is a reasonable expectation of receiving more than one sealed bid; ~~and~~

(B) shall request competitive proposals if sealed bids are not appropriate under clause (A)~~.~~***;***

(C) shall rely on market-based competition to the maximum extent practicable to determine sources when-

(i) the Department of Defense is procuring readily available products and services, with or without customization, with a value, or a period of performance, that does not exceed the threshold established under section 3453(b), unless the contracting officer determines that requesting competitive proposals is in the best interest of the government;

(ii) the Department of Defense is procuring readily available products and services or readily available products and services, with or without customization, with a value, or period of performance, in excess of the threshold established under section 3453(b) when authorized by the chief of the contracting office; and

(D) shall utilize merit-based selection processes or peer reviews when appropriate to identify and acquire innovative, developmental, and existing or proven products and services through a general solicitation, such as a problem statement, statement of objectives, or broad agency announcement.

(b)***

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(d)***

(3)(A) The contract period of a contract described in subparagraph (B) that is entered into by an agency pursuant to the authority provided under subsection (c)(2)-

(i) may not exceed the time necessary-

(I) to meet the unusual and compelling requirements of the work to be performed under the contract; and

(II) for the agency to enter into another contract for the required goods or services through the use of competitive procedures; and

(ii) may not exceed one year unless the head of the agency entering into such contract determines that exceptional circumstances apply.

(B) This paragraph applies to any contract in an amount greater than the simplified acquisition threshold ***or, in the case of an agency named in paragraphs (1)-(4) of section 2302(a) of this title, when entered into under procedures other than readily available acquisition procedures***.

(e) ***

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(g)(1) In order to promote efficiency and economy in contracting and to avoid unnecessary burdens for agencies and contractors, the Federal Acquisition Regulation shall provide for-

(A) special simplified procedures for purchases of property and services for amounts not greater than the simplified acquisition threshold; and

(B) special simplified procedures for purchases of property and services for amounts greater than the simplified acquisition threshold but not greater than $5,000,000 with respect to which the contracting officer reasonably expects, based on the nature of the property or service s sought and on market research, that offers will include only commercial items.

(2) A proposed purchase or contract for an amount above the simplified acquisition ***or the readily available threshold found in section 3453 of this title*** may not be divided into several purchases or contracts for lesser amounts in order to use the simplified procedures required by paragraph (1).

(3) In using simplified procedures, the head of an agency shall promote competition to the maximum extent practicable.

(4) The head of an agency shall comply with the Federal Acquisition Regulation provisions referred to in section 1901(e) of title 41.

(5) To promote efficiency and economy in contracting, take advantage of competitive forces in the marketplace, and enable the Department of Defense to use business practices that are more consistent with the private sector, the Defense Federal Acquisition Regulation Supplement shall provide for special simplified procedures for purchases of readily available products and services and readily available products and services with customization pursuant to the thresholds established in section 3453 of this title.

(6) When using readily available acquisition procedures, the Secretary of Defense shall promote competition, by relying, to the maximum extent practicable, on market-based competition pursuant to section 3453(b) of this title.

(h) For the purposes of the following, purchases or contracts awarded after using procedures other than sealed-bid procedures shall be treated as if they were made with sealed-bid procedures:

(1) Chapter 65 of title 41.

(2) Sections 3141–3144, 3146, and 3147 of title 40.

(i)(1) The Secretary of Defense shall prescribe by regulation the manner in which the Department of Defense negotiates prices for supplies to be obtained through the use of procedures other than competitive procedures, as defined in section 2302(2) of this title.

(2) The regulations required by paragraph (1) shall-

(A) specify the incurred overhead a contractor may appropriately allocate to supplies referred to in that paragraph; and

(B) require the contractor to identify those supplies which it did not manufacture or to which it did not contribute significant value.

(3) Such regulations shall not apply to ~~an item of supply included in a contract or subcontract for which the price is based on established catalog or market prices of commercial items sold in substantial quantities to the general public~~ ***a readily available product or service, with or without customization, acquired using readily available acquisition procedures***.

(j) ***

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§2305. Contracts: planning, solicitation, evaluation, and award procedures

(a)(1)(A) ~~In preparing for the procurement of property or services, the head of an agency shall~~ ***Except as provided in subparagraph (D), the head of an agency, in preparing for the procurement of property or services-***

(i) specify the agency's needs and solicit bids or proposals in a manner designed to achieve full and open competition for the procurement;

(ii) use advance procurement planning and market research; and

(iii) develop specifications in such manner as is necessary to obtain full and open competition with due regard to the nature of the property or services to be acquired.

(B) ***

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(D) ***Subparagraph (A) does not apply in the case of a procurement by the Department of Defense using either market-based competition or merit-based selection.***

(2) In addition to the specifications described in paragraph (1), a solicitation for sealed bids or competitive proposals (other than for a procurement for commercial items using special simplified procedures***, procurement by the an agency named in paragraphs (1)-(4) of section 2302a of this title using readily available acquisition procedures***, or a purchase for an amount not greater than the simplified acquisition threshold) shall at a minimum include-

(A)***

*****

§2306a. Cost or pricing data: truth in negotiations

(a) ***

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(b) EXCEPTIONS.—

(1) IN GENERAL.—Submission of certified cost or pricing data shall not be required under subsection (a) in the case of a contract, a subcontract, or modification of a contract or subcontract—

(A) for which the price agreed upon is based on—

(i) adequate competition that results in at least two or more responsive and viable competing bids; or

(ii) prices set by law or regulation;

(B) for the acquisition of a commercial item;

(C) in an exceptional case when the head of the procuring activity, without delegation, determines that the requirements of this section may be waived and justifies in writing the reasons for such determination; ~~or~~

(D) to the extent such data—

(i) relates to an offset agreement in connection with a contract for the sale of a weapon system or defense-related item to a foreign country or foreign firm; and

(ii) does not relate to a contract or subcontract under the offset agreement for work performed in such foreign country or by such foreign firm that is directly related to the weapon system or defense-related item being purchased under the contract~~.~~***; or***

(E) when an agency named in paragraphs (1)-(4) of section 2302(a) of this title is acquiring readily available products and services, with or without customization.

~~(2) MODIFICATIONS OF CONTRACTS AND SUBCONTRACTS FOR COMMERCIAL ITEMS. In the case of a modification of a contract or subcontract for a commercial item that is not covered by the exception to the submission of certified cost or pricing data in paragraph (1)(A) or (1)(B), submission of certified cost or pricing data shall not be required under subsection (a) if-~~

~~(A) the contract or subcontract being modified is a contract or subcontract for which submission of certified cost or pricing data may not be required by reason of paragraph (1)(A) or (1)(B); and~~

~~(B) the modification would not change the contract or subcontract, as the case may be, from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.~~

(2) MODIFICATIONS OF CONTRACTS AND SUBCONTRACTS FOR COMMERCIAL ITEMS AND DEPARTMENT OF DEFENSE CONTRACTS OR SUBCONTRACTS FOR

READILY AVAILABLE PRODUCTS OR SERVICES, WITH OR WITHOUT CUSTOMIZATION.—In the case of a modification of a contract or subcontract for a commercial item that is not covered by the exception to the submission of certified cost or pricing data in paragraph (1)(A) or (1)(B), and in the case of a Department of Defense contract for a readily available product or service, with or without customization, that is not covered by the exception to the submission of certified cost or pricing data in paragraph in (1)(A) or (1)(E), submission of certified cost or pricing data shall not be required under subsection (a) if—

(A) the contract or subcontract being modified is a contract or subcontract for which submission of certified cost or pricing data may not be required by reason of paragraph (1)(A), (1)(B), or (1)(E); and

(B) the modification would not change the contract or subcontract, as the case may be—

(i) from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of a product or service other than a commercial item;

(ii) from a contractor or subcontractor for the acquisition of a readily available product or service to a contract or subcontract for the acquisition of a product or service other than a readily available product or service; or

(iii) from a contractor or subcontract for the acquisition of a readily available product or service with customization to a contract or subcontract for the acquisition of a product or service other than a readily available product

(3) ~~NONCOMMERCIAL MODIFICATIONS OF COMMERCIAL ITEMS.—(A) The exception in paragraph (1)(B) does not apply to cost or pricing data on noncommercial modifications of a commercial item that are expected to cost~~ ***NONCOMMERCIAL MODIFICATIONS OF COMMERCIAL ITEMS AND READILY AVAILABLE PRODUCTS AND SERVICES FURTHER DEVELOPED FOR A DEFENSE-UNIQUE PURPOSE.—(A) The exceptions in paragraph (1)(B) and (1)(E) do not apply to cost or pricing data on noncommercial modifications of a commercial item, or modifications that require further development of a readily available product or service such that it is repurposed in a defense-unique way for the Department of Defense inconsistent with private sector practices, that are expected to cost***, in the aggregate, more than the amount specified in subsection (a)(1)(A)(i), as adjusted from time to time under subsection (a)(7), or 5 percent of the total price of the contract (at the time of contract award), whichever is greater.

(B) In this paragraph, the term "noncommercial modification", with respect to a commercial item, means a modification of such item that is not a modification described in section 103(3)(A) of title 41.

(C) Nothing in subparagraph (A) shall be construed—

(i) to limit the applicability of the exception in subparagraph (A) or (C) of paragraph (1) to cost or pricing data on a noncommercial modification of a commercial item ***or a readily available product or service further developed for a defense-unique purpose by the Department of Defense***; or

(ii) to require the submission of cost or pricing data on any aspect of an ~~acquisition of a commercial item other than the cost and pricing of noncommercial modifications of such item~~ ***acquisition of a commercial item or readily available product or service other than the cost and pricing of noncommercial modifications of such item or defense-unique development of such***

product or service for the Department of Defense.

(4) COMMERCIAL ITEM ***AND DEFENSE-UNIQUE*** DETERMINATION.—(A) For purposes of applying the commercial item exception under paragraph (1)(B) to the required submission of certified cost or pricing data, the contracting officer may presume that a prior commercial item determination made by ~~a military department, a Defense Agency, or another component of the Department of Defense~~ ***an agency*** shall serve as a determination for subsequent procurements of such item.

(B) If the contracting officer does not make the presumption described in subparagraph (A) and instead chooses to proceed with a procurement of an item previously determined to be a commercial item using procedures other than the procedures authorized for the procurement of a commercial item, the contracting officer shall request a review of the commercial item determination by the head of the contracting activity.

(C) Not later than 30 days after receiving a request for review of a commercial item determination under subparagraph (B), the head of a contracting activity shall—

(i) confirm that the prior determination was appropriate and still applicable; or

(ii) issue a revised determination with a written explanation of the basis for the revision.

(D) For purposes of applying the readily available exception under paragraph (1)(E) to the required submission of certified cost or pricing data for the Department of Defense, a product or service that is offered for sale, with or without customization, and that does not require any defense-unique development shall be presumed to be readily available unless the contracting officer makes a written determination that the product or service is not readily available or readily available with customization.

(5) A contracting officer shall consider evidence provided by an offeror of ~~recent purchase prices paid by the Government for the same or similar commercial items in establishing~~ ***recent actual net prices paid by the Government or any other buyer for the same or similar commercial items or readily available products or services in establishing*** price reasonableness on a subsequent purchase if the contracting officer is satisfied that the prices previously paid remain a valid reference for comparison after considering the totality of other relevant factors such as the time elapsed since the prior purchase and any differences in the quantities purchased or applicable terms and conditions.

(6) DETERMINATION BY PRIME CONTRACTOR.—A prime contractor required to submit certified cost or pricing data under subsection (a) with respect to a prime contract shall be responsible for determining whether a subcontract under such contract qualifies for an exception under paragraph (1)(A) from such requirement.

(c) COST OR PRICING DATA ON BELOW-THRESHOLD CONTRACTS.—

(1) AUTHORITY TO REQUIRE SUBMISSION.—Subject to paragraph (2), when certified cost or pricing data are not required to be submitted by subsection (a) for a contract, subcontract, or modification of a contract or subcontract, such data may nevertheless be required to be submitted by the head of the procuring activity, but only if the head of the procuring activity determines that such data are necessary for the evaluation by the agency of the reasonableness of the price of the contract, subcontract, or modification of a contract or subcontract. In any case in which the head of the procuring activity requires such data to be submitted under this subsection, the head of the procuring activity shall justify in writing the reason for such requirement.

(2) EXCEPTION.—The head of the procuring activity may not require certified cost or pricing data to be submitted under this paragraph for any contract or subcontract, or modification of a contract or subcontract, covered by the exceptions in ~~subparagraph (A), or (B),~~ ***subparagraph (A), (B), or (E)*** of subsection (b)(1).

(3) DELEGATION OF AUTHORITY PROHIBITED.—The head of a procuring activity may not delegate functions under ~~this paragraph~~ ***this subsection***.

(d)***

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(2) LIMITATIONS ON AUTHORITY ***FOR COMMERCIAL ITEMS***.—The Federal Acquisition Regulation shall include the following provisions regarding the types of information that contracting officers may require under paragraph (1):

(A) Reasonable limitations on requests for sales data relating to commercial items.

(B) A requirement that a contracting officer limit, to the maximum extent practicable, the scope of any request for information relating to commercial items from an offeror to only that information that is in the form regularly maintained by the offeror in commercial operations.

(C) A statement that any information received relating to commercial items that is exempt from disclosure under section 552(b) of title 5 shall not be disclosed by the Federal Government.

(3) LIMITATIONS ON AUTHORITY FOR READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR CUSTOMIZATION.—The Defense Federal Acquisition Regulation Supplement shall include the following provisions regarding the types of information that contracting officers may require under paragraph (1):

(A) A reasonable limitations on requests for sales data relating to readily available products and services and readily available products and services with customization.

(B) A requirement that a contracting officer limit, to the maximum extent practicable, the scope of any request for information relating to readily available products, with or without customization, from an offeror to only that information that is in the form regularly maintained by the offeror in private sector operations.

(C) A statement that any information received relating to readily available products and services and readily available products and services with customization that is exempt from disclosure under section 552(b) of title 5 shall not be disclosed by the Federal Government.

(e) ***

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(h) DEFINITIONS.—In this section:

(1) Cost or pricing data.—The term "cost or pricing data" means all facts that, as of the date of agreement on the price of a contract (or the price of a contract modification), or, if applicable consistent with subsection (e)(1)(B), another date agreed upon between the parties, a prudent buyer or seller would reasonably expect to affect price negotiations significantly. Such term does not include information that is judgmental, but does include the factual information from which a judgment was derived.

(2) Subcontract.—The term "subcontract" includes a transfer of commercial items, ***readily available products or services, with or without customization,*** between divisions, subsidiaries, or affiliates of a contractor or a subcontractor.

(3) ***

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§2307. Contract financing

(a)***

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(f) CONDITIONS FOR PAYMENTS FOR COMMERCIAL ITEMS, ***READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION***.—(1) Payments under subsection (a) for commercial items***, readily available products and services, with or without customization,*** may be made under such terms and conditions as the head of the agency determines are appropriate or customary in the commercial marketplace and are in the best interests of the United States. The head of the agency shall obtain adequate security for such payments. If the security is in the form of a lien in favor of the United States, such lien is paramount to all other liens and is effective immediately upon the first payment, without filing, notice, or other action by the United States.

(2) Advance payments made under subsection (a) for commercial items***, readily available products and services, with or without customization,*** may include payments, in a total amount of not more than 15 percent of the contract price, in advance of any performance of work under the contract.

(3) The conditions of subsections (d) and (e) need not be applied if they would be inconsistent, as determined by the head of the agency, with commercial ***or private sector*** terms and conditions pursuant to paragraphs (1) and (2).

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§2320. Rights in technical data

(a)***

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(b) Regulations prescribed under subsection (a) shall require that, whenever practicable, a contract for supplies or services entered into by an agency named in section 2303 of this title contain appropriate provisions relating to technical data, including provisions—

(1) defining the respective rights of the United States and the contractor or subcontractor (at any tier) regarding any technical data to be delivered under the contract and providing that, in the case of contract for a ~~commercial item, the item~~ ***commercial item or readily available product or service, with or without customization*****, the item, product, or service** shall be presumed to be developed at private expense unless shown otherwise in accordance with section 2321(f);

(2) ***

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(9) providing that, in addition to technical data that is already subject to a contract delivery requirement, the United States may require, until the date occurring six years after acceptance of the last item (other than technical data) under a contract or the date of contract termination, whichever is later, the delivery of technical data that has been generated in the performance of the contract, and compensate the contractor only for reasonable costs incurred for having converted and delivered the data in the required form, upon a determination that—

(A) the technical data is needed for the purpose of reprocurement, sustainment, modification, or upgrade (including through competitive means) of a major system or subsystem thereof, a

weapon system or subsystem thereof, or any noncommercial item***, nonreadily available product or service, with or without customization,*** or process; and

(B) the technical data—

(i) pertains to an item***, product,*** **service,** or process developed in whole or in part with Federal funds; or

(ii) is described in subparagraphs (D)(i)(II), (F), and (G) of subsection (a)(2); and

(10) providing that the United States is not foreclosed from requiring the delivery of the technical data by a failure to challenge, in accordance with the requirements of section 2321(d) of this title, the contractor's assertion of a use or release restriction on the technical data.

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§2321. Validation of proprietary data restrictions

(a)***

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(f) PRESUMPTION OF DEVELOPMENT EXCLUSIVELY AT PRIVATE EXPENSE.—In the case of a challenge to a use or release restriction that is asserted with respect to technical data of a contractor or subcontractor under a contract for commercial items ***or readily available products or services, with or without customization***, the contracting officer shall presume that the contractor or subcontractor has justified the restriction on the basis that the item was developed exclusively at private expense, whether or not the contractor or subcontractor submits a justification in response to the notice provided pursuant to subsection (d)(3). In such a case, the challenge to the use or release restriction may be sustained only if information provided by the Department of Defense demonstrates that the item was not developed exclusively at private expense.

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§2322a. Requirement for consideration of certain matters during acquisition of ~~noncommercial~~ *defense-unique developmental* computer software

(a) CONSIDERATION REQUIRED.—As part of any negotiation for the acquisition of ~~noncommercial computer software~~ ***computer software that meets the definition of defense-unique development under section 2302 of this title***, the Secretary of Defense shall ensure that such negotiations consider, to the maximum extent practicable, acquisition, at the appropriate time in the life cycle of the ~~noncommercial computer~~ software, of all software and related materials necessary—

(1) to reproduce, build, or recompile the software from original source code and required libraries;

(2) to conduct required computer software testing; and

(3) to deploy working computer software system binary files on relevant system hardware.

(b) DELIVERY OF SOFTWARE AND RELATED MATERIALS.—Any ~~noncommercial computer software~~ ***defense-unique developmental computer software*** or related materials required to be delivered as a result of considerations in subsection (a) shall, to the extent appropriate as determined by the Secretary—

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§2324. Allowable costs under defense contracts

(a)***

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(l) DEFINITIONS.—In this section:

(1)(A) The term "covered contract" means a contract for an amount in excess of $500,000 that is entered into by the head of an agency, except that such term does not include a fixed-price contract without cost incentives or any firm fixed-price contract for the purchase of ~~commercial items~~ **readily available products and services, with or without customization**.

******

§2335. Prohibition on collection of political information

(a)***

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(b) SCOPE.—The prohibition under this section applies to ~~the procurement of commercial items, the procurement of commercial-off-the-shelf items, and the non-commercial procurement of supplies, property, services, and manufactured items~~ ***all agency procurement actions***, irrespective of contract vehicle, including contracts, purchase orders, task or deliver orders under indefinite delivery/indefinite quantity contracts, blanket purchase agreements, ~~and basic ordering agreements~~, ***basic ordering agreements, and other transactions***.

(c) ***

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National Defense Authorization Act for Fiscal Year 2019

(Pub. L. 115-223)

"SEC. 226. ACTIVITIES ON IDENTIFICATION AND DEVELOPMENT OF ENHANCED PERSONAL PROTECTIVE EQUIPMENT AGAINST BLAST INJURY. (10 U.S.C. 2302 note)

"(b) ***

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"(3) PARTNERSHIPS FOR CERTAIN ASSESSMENTS.—As part of the activities, the Secretary should continue to establish partnerships with appropriate academic institutions for purposes of assessing the following:

"(A) The ability of various forms of personal protective equipment to protect against common blast injuries, including traumatic brain injuries.

"(B) The value of real-time data analytics to track the effectiveness of various forms of personal protective equipment to protect against common blast injuries, including traumatic brain injuries.

"(C) The availability of commercial-off the-shelf***, readily available products or services, with or without customization,*** personal protective technology to protect against traumatic brain injury resulting from blasts.

"(D) ***

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"SEC. 866(d). GUIDANCE ON TECHNICAL DATA RIGHT NEGOTIATION (10 U.S.C. 2321 note)

"The Secretary of Defense shall develop policies on the negotiation of technical data rights for ~~noncommercial software~~ ***software that meets the definition of defense-unique development under section 3451 of Title 10, United States Code*** that reflects the Department of Defense's needs for technical data rights in the event of a protest or replacement of incumbent contractor to meet defense requirements in the most cost effective manner."

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National Defense Authorization Act for Fiscal Year 2018

(Pub. L. 115-91)

"SEC. 1698. USE OF ~~COMMERCIAL ITEMS~~ *READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT, CUSTOMIZATION* IN DISTRIBUTED COMMON GROUND SYSTEMS. (10 U.S.C. 2302 note)

"(a) IN GENERAL.—The procurement process for each covered Distributed Common Ground System shall be carried out in accordance with ~~section 2377~~ ***section 3543*** of title 10, United States Code.

"(b) CERTIFICATION.—Not later than 30 days after the date of the enactment of this Act [Dec. 12, 2017], the service acquisition executive responsible for each covered Distributed Common Ground System shall certify to the appropriate congressional committees that the procurement process for increments of the system procured after the date of the enactment of this Act will be carried out in accordance with ~~section 2377~~ ***Section 3543*** of title 10, United States Code.

(c) READILY AVAILABLE PRODUCTS AND SERVICES, WITH OR WITHOUT CUSTOMIZATION.—Not later than 30 days after the implementation of the acquisition procedures for acquiring readily available products and services, with or without customization, under section 3453 of title 10, United States Code, the service acquisition executive responsible for each covered Distributed Common Ground System shall certify to the appropriate congressional committees that the procurement process for increments of the

system procured after the date of the enactment of this Act will be carried out in accordance with section 3452 of title 10, United States Code.

"(~~c~~*d*) DEFINITIONS.—In this section:

"(1) The term 'appropriate congressional committees' means—

"(A) the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives]; and

"(B) the Select Committee on Intelligence of the Senate and the Permanent Select Committee on Intelligence of the House of Representatives.

"(2) The term 'covered Distributed Common Ground System' includes the following:

"(A) The Distributed Common Ground System of the Army.
"(B) The Distributed Common Ground System of the Navy.
"(C) The Distributed Common Ground System of the Marine Corps.
"(D) The Distributed Common Ground System of the Air Force.
"(E) The Distributed Common Ground System of the Special Operations Forces."

National Defense Authorization Act for Fiscal Year 2017

(Pub. L. 114-328)

"SEC. 879. DEFENSE PILOT PROGRAM FOR AUTHORITY TO ACQUIRE INNOVATIVE ~~COMMERCIAL ITEMS, TECHNOLOGIES,~~ *TECHNOLOGIES* AND SERVICES USING GENERAL SOLICITATION COMPETITIVE PROCEDURES. (10 U.S.C. 2302 note)

"(a) AUTHORITY.—The Secretary of Defense and the Secretaries of the military departments may carry out a pilot program, to be known as the '~~defense commercial solutions opening pilot program~~ ***defense innovative solutions opening pilot program***', under which the Secretary may acquire ~~innovative commercial items, technologies, and services~~ ***innovative products, technologies, and services*** through a competitive selection of proposals resulting from a general solicitation and the peer review of such proposals ***pursuant to section 2304(a)(2)(D) of title 10, United States Code***.

~~"(b) TREATMENT AS COMPETITIVE PROCEDURES.—Use of general solicitation competitive procedures for the pilot program under subsection (a) shall be considered to be use of competitive procedures for purposes of chapter 137 of title 10, United States Code.~~

"(~~c~~*b*) LIMITATIONS.—

"(1) IN GENERAL.—The Secretary may not enter into a contract or agreement under the pilot program for an amount in excess of $100,000,000 without a written determination from the Under Secretary for Acquisition, Logistics, and Technology or the relevant service

acquisition executive of the efficacy of the effort to meet mission needs of the Department of Defense or the relevant military department.

"(2) FIXED-PRICE REQUIREMENT.—Contracts or agreements entered into under the program shall be fixed-price~~, including fixed-price incentive fee contracts~~.

"~~(3) TREATMENT AS COMMERCIAL ITEMS.—Notwithstanding section 2376(1) of title 10, United States Code, items, technologies, and services acquired under the pilot program shall be treated as commercial items.~~ ***(3) Treatment as readily available products and services, with or without customization.—Notwithstanding section 3451(1) of Title 10, United States Code, products, technologies, and services acquired under the pilot program shall be treated as readily available products and services, with or without customization.***

~~"(d) GUIDANCE.—Not later than six months after the date of the enactment of this Act [Dec. 23, 2016], the Secretary shall issue guidance for the implementation of the pilot program under this section within the Department of Defense. Such guidance shall be issued in consultation with the Director of the Office of Management and Budget and shall be posted for access by the public.~~

"(~~e~~***c***) CONGRESSIONAL NOTIFICATION REQUIRED.—

"(1) IN GENERAL.—Not later than 45 days after the award of a contract for an amount exceeding $100,000,000 using the authority in subsection (a), the Secretary of Defense shall notify the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] of such award.

"(2) ELEMENTS.—Notice of an award under paragraph (1) shall include the following:

"(A) Description of the innovative ~~commercial item, technology, or service~~ ***readily available products or services, with or without customization,*** acquired.

"(B) Description of the requirement, capability gap, or potential technological advancement with respect to which the innovative ~~commercial item, technology, or service~~ ***product or service*** acquired provides a solution or a potential new capability.

"(C) Amount of the contract awarded.

"(D) Identification of contractor awarded the contract.

"(~~f~~***d***) DEFINITION.—In this section, the term 'innovative' means—

"(1) any technology, process, or method, including research and development, ~~that is new~~ ***that uniquely meets a requirement, fills a capability gap, presents a potential technological advancement or is new*** as of the date of submission of a proposal; or

"(2) any application ~~that is new~~ ***that uniquely meets a requirement, fills a capability gap, presents a potential technological advancement or is new*** as of the date of submission of a proposal of a technology, process, or method existing as of such date.

"(~~g~~***e***) SUNSET.—The authority to enter into contracts under the pilot program shall expire on September 30, 2022.

"(f) GUIDANCE.—Not later than six months after the date of the enactment of this Act, the Secretary of Defense shall issue guidance for the implementation of the pilot program under section 879 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-

328; 10 U.S.C. 2302 note), as amended by paragraph (1), within the Department of Defense. Such guidance shall be posted for access by the public."

National Defense Authorization Act for Fiscal Year 2015
(Pub. L. 113-291)

"SEC. 843. DEFINITIONS. (10 U.S.C. 2302 note)

"(1)***

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"(3) CONTRACT.—The term 'contract' ~~includes a contract for commercial items but is not limited to a contract for commercial items~~ ***includes a contract for commercial items, readily available products and services, with or without customization, but is not limited to a contract for commercial items or readily available products and services, with or without customization***.

"(4) ***

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National Defense Authorization Act for Fiscal Year 2009
(Pub. L. 110-417)

"SEC. 254. TRUSTED DEFENSE SYSTEMS. (10 U.S.C. 2302 note)

"(a) ***

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"(b) ASSESSMENT OF METHODS FOR VERIFYING THE TRUST OF SEMICONDUCTORS PROCURED FROM COMMERCIAL SOURCES.—The Under Secretary of Defense for Acquisition, Technology, and Logistics, in consultation with appropriate elements of the Department of Defense, the intelligence community, private industry, and academia, shall conduct an assessment of various methods of verifying the trust of semiconductors procured by the Department of Defense from ~~commercial sources~~ ***private sector sources*** for use in mission-critical components of potentially vulnerable defense systems. The assessment shall include the following:

"(1) ***

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"(c) ***

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"(2) REQUIREMENTS.—At a minimum, the strategy shall—

"(A) address the vulnerabilities identified by the assessment under subsection (a);
"(B) reflect the priorities identified by such assessment;
"(C) provide guidance for the planning, programming, budgeting, and execution process in order to ensure that covered acquisition programs have the necessary resources to implement all appropriate elements of the strategy;
"(D) promote the use of verification tools, as appropriate, for ensuring trust of ~~commercially acquired systems~~ ***readily available products and services, with or without customization or private sector systems***;
"(E) increase use of trusted foundry services, as appropriate; and
"(F) ensure sufficient oversight in implementation of the plan.

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National Defense Authorization Act for Fiscal Year 2007
(Pub. L. 109-364)

"SEC. 852. REPORT AND REGULATIONS ON EXCESSIVE PASS-THROUGH CHARGES. (10 U.S.C. 2324 note)

"(a) ***

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"(b) REGULATIONS REQUIRED.—

"(1) IN GENERAL.—Not later than May 1, 2007, the Secretary of Defense shall prescribe regulations to ensure that pass-through charges on contracts or subcontracts (or task or delivery orders) that are entered into for or on behalf of the Department of Defense are not excessive in relation to the cost of work performed by the relevant contractor or subcontractor.

"(2) SCOPE OF REGULATIONS.—The regulations prescribed under this subsection—

"(A) shall not apply to any firm, fixed-price contract or subcontract (or task or delivery order) that is—
"(i) awarded on the basis of adequate price competition; or
"(ii) for the acquisition of a ~~commercial item, as defined in section 103 of title 41~~ ***readily available produce or service, with or without customization, as defined in section 3451 of title 10***, United States Code; and
"(B) may include such additional exceptions as the Secretary determines to be necessary in the interest of the national defense.
"(3) ***

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National Defense Authorization Act for Fiscal Year 1996
(Pub. L. 104-106)

"SEC. 822. DEFENSE FACILITY-WIDE PILOT PROGRAM. (10 U.S.C. 2302 note)

"(a)***

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"(g) SPECIAL AUTHORITY.—The authority provided under subsection (a) includes authority for the Secretary of Defense—

"(1) to apply any amendment or repeal of a provision of law made in this Act [see Tables for classification] to the pilot program before the effective date of such amendment or repeal; and

"(2) to apply to a ~~procurement of items other than commercial items~~ ***procurement of products or services other than readily available products and services, with or without customization,*** under such program—

"(A) the authority provided in section 34 of the Office of Federal Procurement Policy Act ([former] 41 U.S.C. 430) [now 41 U.S.C. 1906] to waive a provision of law in the case of commercial items, and

"(B) any exception applicable under this Act or the Federal Acquisition Streamlining Act of 1994 (Public Law 103–355) [see Tables for classification] (or an amendment made by a provision of either Act) in the case of commercial items, before the effective date of such provision (or amendment) to the extent that the Secretary determines necessary to test the application of such waiver or exception to procurements of items other than commercial items.

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National Defense Authorization Act for Fiscal Year 1992/1993
(Pub. L. 102-190)

"SEC. 806. PAYMENT PROTECTIONS FOR SUBCONTRACTORS AND SUPPLIERS. (10 U.S.C. 2302 note)

"(a)***

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"(b) INAPPLICABILITY TO CERTAIN CONTRACTS.—Regulations prescribed under this section shall not apply to a contract for the acquisition of commercial items (as defined in section

103 of title 41, United States Code) or ***readily available products and services, with or without customization (as defined aby section 3451 of title 10, United States Code)***.

"(c) ***

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RECOMMENDED REGULATORY REVISIONS

SUBPART 205.2--SYNOPSES OF PROPOSED CONTRACT ACTIONS

205.202 -- Exceptions

(a)(13) When using market-based competition to acquire readily available products and services pursuant to 10 U.S.C. 3453, the notice required in FAR 5.201 is not required.

205.203 Publicizing and response time.

(b) Allow at least 45 days response time when requested by a qualifying or designated country source (as these terms are used in Part 225) and the request is consistent with the Government's requirement.

(1) When using readily available acquisition procedures found in part 213 there is no minimum response time required. When a solicitation is used, the contracting officer will provide a response time that is reasonable based on the nature of the acquisition.

(2) The contracting officer will use a combined synopsis/solicitation in all cases where the Department of Defense is using readily available acquisition procedures and a solicitation is being issued.

(S-70) When using competitive procedures, if a solicitation allowed fewer than 30 days for receipt of offers and resulted in only one offer, the contracting officer shall resolicit, allowing an additional period of at least 30 days for receipt of offers, except as provided in 215.371-4 and 215.371-5.

[The following would create a new DFARS Subpart 213.0 and replace Subpart 213.1.]

PART 213—Readily Available Acquisition and Micro-Purchase Procedures

213.000 -- Scope of Part.

This part prescribes policies and procedures for the acquisition of readily available products and services and readily available products and services with customization. These policies and procedures replace policies and procedures found in part 12 and subparts 13.0 and 13.1, for the Department of Defense pursuant to 10 U.S.C. 3454. The remainder of this part supplements part 13 to implement the statutorily authorized readily available acquisition procedures. See 36.602-5 for simplified procedures to be used when acquiring architect-engineer services. These procedures may be used to procure readily available products and services, the aggregate amount of which does not exceed $15 million. This part establishes acquisition policies and procedures that much more closely resemble those of the private sector or commercial marketplace and encourages the acquisition of readily available products and services as directed by 10 U.S.C. 3454. A contract awarded using these procedures is not required to be set-aside for small

business, or any subset of small business concerns, but small business concerns will receive a five percent price preference in furtherance of sections 9 and 15 of the Small Business Act (15 U.S.C. 638, 644).

213.001 -- Definitions.

As used in this part --

"Authorized individual" means a person who has been granted authority, in accordance with agency procedures, to acquire supplies and services in accordance with this part.

"Customization" means:

(1) With respect to products:

(a) changes, beyond optional, priced product features, made to a readily available product to meet a DoD need using commercial processes and equipment; or

(b) the manufacturing of a product based on a specification using only commercial processes and equipment.

(2) With respect to services means:

(c) Services are considered customized when a performance work statement, statement of objectives, or other form direction about how to perform the services is necessary to identify the services to be performed.

"Defense-Unique Development" means DoD financed development, either to repurpose a readily available product or service or to develop a new product or service, to provide a defense unique capability.

"Governmentwide commercial purchase card" means a purchase card, similar in nature to a commercial credit card, issued to authorized agency personnel to use to acquire and to pay for products and services.

"Imprest fund" means a cash fund of a fixed amount established by an advance of funds, without charge to an appropriation, from an agency finance or disbursing officer to a duly appointed cashier, for disbursement as needed from time to time in making payment in cash for relatively small amounts.

"Market-based competition" means the consideration of sources that offer readily available products, services, and solutions at prices available to any potential buyer, resulting in competition being established through market forces.

"Readily available" means any product or service that requires no customization by the vendor and can be put on order by customers. Optional, priced features of products and services in a form that is offered for sale in the normal course of business, fall within the definition of readily available.

"Third party draft" means an agency bank draft, similar to a check, that is used to acquire and to pay for supplies and services. (See Treasury Financial Management Manual, Section 3040.70.)

"Value Assessment" means an assessment by a requiring activity or program office of the value of a product or service to the requiring activity or program office's mission relative to the price offered provided to the contracting officer to aid in determining a price fair and reasonable.

213.002 -- Purpose.

The purpose of this part is to prescribe simplified readily available acquisition procedures in order to --

(a) Ensure timely delivery of lethality, technical dominance and the maintenance of that dominance to the warfighter;
(b) Provide integrity in the contracting process;
(c) Obtain value for money when acquiring readily available products and services and readily available products and services with customization;
(d) Reduce the administrative costs and burdens for agencies and contractors;
(e) Take advantage of market-based competition and market pricing; and
(f) Reduce barriers for small and non-traditional companies.

213.003 -- Policy.

(a) Agencies shall use market-based competition for acquiring readily available products and services, with or without customization, not exceeding $15 million and will use these readily available acquisition procedures for the acquisition of all readily available products and services, with or without customization, below that threshold. This policy does not apply if an agency can meet its requirement using required sources of supply under part 8 except for those found in part 8.4. Contracting officers should consider Federal Supply Schedules as part of their market research.

(b) Agencies shall—
(1) Conduct market research to determine whether readily available products and services are available that meet the agency's requirements;
(2) Acquire readily available products and services when they meet the needs of the agency;
(3) Acquire the development of a defense-unique product or service, when a readily available product or service, with or without customization, meets the needs of an angency only when a written determination to do so is made by the contracting officer and the program manager or head of the requiring activity;
(4) Consider all services procured by the agency to be readily available, either with or without customization, unless the appropriate authority, pursuant to 10 U.S.C. 3452(d).
(5) Require prime contractors and subcontractors at all tiers to incorporate readily available products and services as components of products and services supplied to the agency, to the maximum extent practicable; and

(6) Use these readily available acquisition procedures to acquire all readily available products and services with an anticipated value of $15 million or less, and a period of performance of less than 12 months in the case of service contracts, unless the head of the contracting activity determines that more complex procedures found in part 15 are necessary to manage an unusually high risk acquisition.

(c) Acquisitions using these procedures shall not be set-aside for small business. Purchases from small businesses using these procedures may be counted towards DoD's small business goals. If a small business concern is identified during market research or responds to a solicitation the following procedure applies:

(1) Small business offerors will be given a five (5) percent price preference for evaluation purposes. (d) (1) The chief of the contracting office may authorize use of these procedures to acquire readily available products and services if the anticipated award will exceed $15 million.

(2) Do not break down requirements aggregating more than the $15 million threshold or the micro-purchase threshold into several purchases that are less than the applicable threshold merely to –

(i) Permit use of readily available procedures; or

(ii) Avoid any requirement that applies to purchases exceeding the micro-purchase threshold.

(e) Agencies shall use the Governmentwide commercial purchase card and electronic purchasing techniques to the maximum extent practicable in conducting readily available acquisitions (but see 32.1108(b)(2)).(f) Agencies shall maximize the use of electronic commerce when practicable (see Subpart 4.5). Drawings and lengthy specifications can be provided off-line in hard copy or through other appropriate means.

(g) Authorized individuals shall make purchases using the readily available acquisition procedures that are most suitable, efficient, and economical based on the circumstances of each acquisition.

(h) In addition to other considerations, contracting officers shall --

(1) Use market-based competition to the maximum extent practicable (see 213.103-1);

(2) Conduct market research commensurate with the complexity and dollar value of the acquisition. Presolicitation communication is encouraged, including, for example, the use of industry days, presolicitation conferences, market surveillance, requests for sources (RFS) and requests for information (RFIs).

(3) Establish deadlines for the submission of responses, when using solicitations that afford suppliers a reasonable opportunity to respond (see 205.203);

(4) When a solicitation is issued, consider all quotations or offers that are timely received. For evaluation of quotations or offers received (see 213.103-5); and

(5) Use innovative and private sector accepted approaches, to the maximum extent practicable, in awarding contracts using readily available acquisition procedures.

213.004 -- Legal Effect of Quotations.

(a) A quotation is not an offer and, consequently, cannot be accepted by the Government to form a binding contract. Issuance by the Government of an order, either a purchase order or Governmentwide purchase card order, in response to a supplier's quotation does not establish a contract. A contract is established when the supplier accepts the offer by signing the purchase order, performing, or charging the Governmentwide purchase card.

(b) If the Government issues an order resulting from a quotation, the Government may (by notice to the supplier, at any time before acceptance occurs) withdraw, amend, or cancel its offer. (See 13.302-4 for procedures on termination or cancellation of purchase orders.)

213.005 – List of Laws, Executive Orders, and Regulations Applicable to Contracts and Subcontracts for Readily Available Products and Services.

(a) The following list includes all Federal procurement related laws applicable to all contracts and subcontracts (if otherwise applicable to subcontracts) for the procurement of readily available products and services, with or without customization, pursuant to 10 U.S.C. 3456(a):

(1) [Include those laws amended by Congress to refer to 10 U.S.C. 3456 be applicable to contracts for readily available products and services and readily available products and services with customization.]

(b) The following list includes all Federal procurement related executive orders, regulations and policies applicable to all contracts and subcontracts (if otherwise applicable to subcontracts) for the procurement of readily available products and services, with or without customization, pursuant to 10 U.S.C. 3456(a):

(1) [Include those executive orders, regulations, and policies that refer to 10 U.S.C. 3456 as being applicable to contracts for the procurement of readily available products and services and readily available products and services with customization.]

(c) The Defense Acquisition Regulatory (DAR) Council will include in the lists set forth in paragraph (a) and (b) only those laws, executive orders, regulations, and policies that set forth policies, procedures, requirements, or restrictions for the acquisition of property or services, and specifically state that the law, executive order, regulation or policy will be applicable to contracts or subcontracts for readily available products and services.

(d) Any individual may petition the Deputy Director for Defense Acquisition Regulation Systems (DARS), Defense Procurement and Acquisition Policy (DPAP), to include any applicable provision of law not included on the list set forth in paragraph (a) of this section.

(e) Nothing in this subpart renders a law of general applicability such as the Fair Labor Standards Act (29 U.S.C. 203) or criminal statutes found in title 18 inapplicable.

213.006 -- Required Provisions and Clauses.

The following clause is the only clause applicable to contracts and subcontracts awarded using readily available acquisition procedures, regardless of the method of procurement (e.g. governmentwide purchase card, purchase order, e-commerce portal):

(a) 252.213-1, Contract Terms and Conditions – Readily Available Products and Services.

Subpart 213.1 –Readily Available Acquisition Procedures

213.101 -- General.

(a) In making purchases, contracting officers shall --

(1) Comply with the policy in 7.202 relating to economic purchase quantities, when practicable;

(2) Include only the Readily Available Products and Services Clause (252.213-1) in purchase orders for readily available products and services and provide for the inspection of supplies or services as prescribed in such clause.

(3) Procure the product or service that presents the best value to the agency; considering mission requirements, price, quality, delivery schedule, etc.

(4) Utilize market-based competition to the maximum extent practicable for all proposed contract actions with an anticipated value of $15 million or less, unless the contracting officer determines that posting a solicitation to the GPE or distributing a solicitation directly to potential suppliers would significantly increase competition relative to the value of the procurement. (see 205.202)

(b) In making purchases, contracting officers should --

(1) Make maximum effort to obtain quantity, preferred customer, prompt payment, or other regularly offered discounts (see 14.408-3). Prompt payment discounts shall not be considered in the evaluation of quotations; and

213.102 -- Use of Standing Price Quotations.

Authorized individuals will utilize standing price quotations as part of the competitive procedures for purchasing --

(a) Readily available products and services with an anticipated value of $15 million or less. These lists should be considered in the contracting officer's market research as a source of market-based pricing. As long as--

(1) The pricing information is current; and

(2) The Government obtains the benefit of maximum discounts before award.

213.103 -- Competition, Evaluation of Quotations or Offers, Award and Documentation.

213.103-1 – Leveraging Competition.

(a) *Considerations.* In determining how to best leverage competition when using readily available acquisition procedures, the contracting officer shall consider the following:

(1) (i) The nature of the product or service to be purchased and whether the product or service is generally sold through the internet, a catalogue, or other source of published pricing and seller terms and conditions; and

(ii) The urgency of the proposed purchase;

(iii) The dollar value of the proposed purchase;

(iv) Past experience acquiring the specific product or service and experience working with specific vendors; and

(v) The likelihood of receiving significantly more advantageous pricing or contract terms and conditions through a public or direct solicitation process, relative to the value of the purchase.

(b) The contracting officer shall use market-based competition to the maximum extent practicable when acquiring readily available products and services with an anticipated contract value of $15 million or less. The contracting officer must purchase from the source, identified through market research, whose offer presents the best value to the agency. The contracting officer must not --

(1) Solicit quotations based on personal preference; or

(2) Restrict market research or solicitation to suppliers of well-known and widely distributed makes or brands.

(c) When a contracting officer does not make an award based on market-based competition and issues a solicitation, the contracting officer shall notify potential quoters or offerors of the basis

on which the award will be made (price alone or price and other factors, *e.g.*, past performance and quality). Contracting officers shall use best value. Solicitations are not required to state the relative importance assigned to each evaluation factor and should avoid the use of subfactors.

(d) Contracting officers may utilize general solicitation procedures, similar to broad agency announcements, to solicit readily available products and services. The solicitation may use a problem statement or statement of a desired end-state to describe a particular problem to be solved or operational capability to be achieved in order to incentivize dissimilar competition of products and services.

(e) The contracting officer shall ensure that sources of readily available products and services resulting from market-based competition are rotated, to the extent that the products or services offered by the sources being rotated represent the same or similar value to the agency.

213.103-2 – Market Research.

(a) *Market-based Competition.* Contracting officers will utilize market-based competition and conduct market research commensurate with the value and complexity of the procurement to identify potential sources of readily available products and services and procure those products and services with an anticipated value of $15 million or less using the most efficient means necessary. When utilizing market-based competition, authorized individuals may directly solicit sources of readily available products and services identified through market research either orally, electronically, or in writing when necessary to ensure the agency receives the benefit of available discounts or other preferential terms and conditions not included in a vendor's online or catalogue-based marketing.

(b) *Communication.* An agency should respond to questions or requests for information regarding current solicitations or potential future acquisitions received through any medium (including electronic commerce) if doing so would not interfere with the efficient conduct of the acquisition.

213.103-3 – Public Posting of Anticipated Requirements.

Contracting offices will publicly post notices of anticipated readily available products and services to be acquired using these procedures on at least a semi-annual basis. These notices should be published by the contracting office that will be responsible for the anticipated purchases. The notices will indicate that the contracting office intends to utilize market-based competition for the acquisition of all readily available products and services with an anticipated value of $15 million or less.

213.103-4 – Solicitation of Sources.

(a) *Public posting of solicitations*

(1) When a contracting officer is acquiring readily available products and services with an anticipated value in excess of $15 million, a service contract with a period of

performance in excess of 12 months, or determines that public notice of a proposed procurement will significantly increase competition and add value to the procurement, a combined synopsis and solicitation may be used to provide such notice. A separate synopsis is not required. The contracting officer must include, in the solicitation, enough information to permit suppliers to develop quotations or offers. Contracting officers who post such notices to the GPE are encouraged to distribute the notice of the solicitation through relevant mediums likely to reach the most potential offerors.

(2) The contracting officer will comply with the public notice requirements for commercial items when procuring readily available products and services with an expected contract value in excess of $15 million and for service contracts with a period of performance in excess of 12 months. (see 5.203(b)) The chief of the contracting office may authorize in writing the use of market-based competition, with no public notice requirement, for a procurement of readily available products and services that exceeds this threshold.

(b) *Direct Solicitation.*

(1) Contracting officer may directly solicit a source or sources identified during market research. The contracting officer must include, in the solicitation, enough information to permit suppliers to develop quotations or offers. Solicitation may be oral or in writing and shall be used to secure pricing discounts and/or more favorable terms and conditions than what is offered as part of a publicly available standing price quotation.

(c) *Written solicitations.* If obtaining electronic or oral quotations is uneconomical or impracticable a written solicitation may be used.

(d) *Use of general solicitations.* Contracting officers may use a general solicitation, when using merit-based selection processes to solicit readily available solutions to problem statements or to solicit capabilities based on a desired outcome. Contracting officers may also solicit readily available products and services that might fit into broad categories of technology or capabilities similar to a broad agency announcement.

213.103-5 -- Evaluation of Market-based Pricing, Quotations, or Offers.

(a) *General.*

(1) The contracting officer shall evaluate market-based pricing, quotations or offers --

(i) In an impartial manner; and

(ii) Inclusive of transportation charges from the shipping point of the supplier to the delivery destination.

(2) When a solicitation is used, quotations or offers shall be evaluated on the basis established in the solicitation.

(3) When a solicitation is used, all quotations or offers submitted in response to a solicitation shall be considered (see paragraph (b) of this subsection).

(b) *Evaluation procedures.*

(1) The contracting officer has broad discretion in fashioning suitable evaluation procedures to determine the offer that represents the best value. The procedures prescribed in parts 14 and 15 are generally not applicable.

(2) Contracting officers shall describe how price will be evaluated in the solicitation. Prices can be considered on a line item or total evaluated price basis. All qualifying quotes will be ordered from lowest to highest price.

(i) Prices quotes or proposals provided by verified small businesses will be decremented by 5% for evaluation purposes.

(3) When evaluating quotes, contracting officers may communicate with all some or none of the bidders to gain a better understanding of the features of the quoted product or service. The communications need not be conducted with any or all bidders and may result in a revised quote by a particular bidder. The objective of communications is to provide additional information to the contracting officer to inform the best value decision.

(4) If using price and other factors, ensure that quotations or offers can be evaluated in an efficient and minimally burdensome fashion. Formal evaluation plans and establishing a competitive range, conducting discussions, and scoring quotations or offers are not required or encouraged. Contracting offices may conduct comparative evaluations of offers. Evaluation of other factors, such as past performance --

(i) Does not require the creation or existence of a formal data base; and

(ii) May be based on one or more of the following:

(A) The contracting officer's knowledge of and previous experience with the supply or service being acquired;

(B) Customer surveys, publicly available reviews of products or suppliers, and past performance questionnaire replies;

(C) The Governmentwide Past Performance Information Retrieval System (PPIRS) at www.ppirs.gov; or

(D) Any other reasonable basis.

(5) If using merit-based selection procedures, contracting officers will facilitate peer reviews of each proposed solution to determine if the proposed solution meets the

solicitation's objective for consideration. Proposed solutions need not be evaluated against each other. Multiple solutions may be selected for award based on a single solicitation.

213.103-6 -- Award and Documentation.

(a) *Basis for award.* Before making award, the contracting officer must determine that the proposed price is fair and reasonable.

(1) Whenever possible, base price reasonableness on market-based competition or competitive quotations or offers if competitive quotations or offers are solicited.

(2) If only one response is received or one offeror is identified during market-based competition, include a statement of price reasonableness in the contract file. The contracting officer may base the statement on --

(i) Market research;

(ii) Comparison of the proposed price with prices found reasonable on previous purchases;

(iii) Current price lists, catalogs, or advertisements**.** However, inclusion of a price in a price list, catalog, or advertisement does not, in and of itself, establish fairness and reasonableness of the price;

(iv) A comparison with similar items in a related industry, taking into account additional capabilities the item being procured may provide;

(v) The contracting officer's personal knowledge of the item being purchased;

(vi) Comparison to an independent Government estimate;

(vii) A value assessment provided by the requiring activity or program office; or

(vii) Any other reasonable basis.

(3) Registration in the System of Award Management is not required in order to make an award to a supplier found as a result of market research-based competition or direct solicitation as long as the contracting officer can determine the supplier responsible.

(b) *File documentation and retention.* Keep documentation to a minimum. Purchasing offices shall retain data supporting purchases (to the maximum extent practicable electronically) to the minimum extent and duration necessary for management review purposes (in lieu of the requirements in Subpart 4.8). The following illustrate the extent to which quotation or offer information should be recorded:

(1) *Market-based Competition.* For acquisitions conducted using market-based competition, document is limited to a record of the extent of the market research conducted, an abstract of prices offered by sources identified during market research, and if award was made based on factors other than price, a brief explanation of the best value determination.

(2) *Oral solicitations.* The contracting office should establish and maintain records of oral price quotations in order to reflect clearly the propriety of placing the order at the price paid with the supplier concerned. In most cases, this will consist merely of showing the names of the suppliers contacted and the prices and other terms and conditions quoted by each.

(3) *Written solicitations.* For acquisitions made using these readily available acquisition procedures, limit written records of solicitations or offers to notes or abstracts to show prices, delivery, references to printed price lists used, the supplier or suppliers contacted, and other pertinent data.

(4) *Special situations.* Include additional statements --

(i) Explaining the limitation of sources considered or solicited, if only one source is solicited or considered (does not apply to an acquisition of utility services available from only one source);

(ii) When a value assessment from the program office or requiring activity is relied upon in making the price reasonableness determination; or

(iii) To document peer reviews of solutions offered as part of a merit-based process using a general solicitation.

(c) *Contract award.* The Governmentwide commercial purchase card or fixed price purchase orders are the preferred methods for procuring readily available products and services using these procedures. For a procurement under these procedures, a contracting officer may use a Governmentwide commercial purchase card as the contract vehicle without the need for an accompanying purchase order, subject to the limitations of the contracting officer's warrant. No flexibly priced contracts may be used under these procedures.

(d) *Notification.* For acquisitions that do not exceed $15 million and for which a solicitation is issued and automatic notification is not provided through an electronic commerce method that employs widespread electronic public notice, notification to unsuccessful suppliers shall be given only if requested or required by 5.301. For procurements that exceed the micro-purchase threshold, and are accomplished using market-based competition, contracting activities will publish on a weekly basis, each contract awarded along with the documentation described in 213.105-3(b)(1), subject to operational security considerations.

(e) *Request for information.* If a supplier requests information on an award that was based on factors other than price alone, a brief explanation of the basis for the contract award decision

shall be provided. The documentation posted pursuant to paragraph (d) will satisfy this requirement.

(f) *Taxpayer Identification Number*. If an oral solicitation is used or market-based competition with no solicitation is used, the contracting officer shall ensure, to the maximum extent practicable, that the copy of the award document sent to the payment office, or documentation of a Governmentwide commercial purchase card transaction, is annotated with the contractor's Taxpayer Identification Number (TIN) and type of organization (see 4.203), unless this information will be obtained from some other source (*e.g.*, centralized database). The contracting officer shall disclose to the contractor that the TIN may be used by the Government to collect and report on any delinquent amounts arising out of the contractor's relationship with the Government (31 U.S.C. 7701 (c)(3)).

213.104 – Additional Policy for the Procurment Readily Available Products and Services with Customization.

213.104-1 – Limitation on Additional Procedures and Terms and Conditions

(a) Purchases of readily available products and services with customization, with an anticipated value of $15 million or less will be accomplished using the procedures outlined in subpart 213.1 to the maximum extent practicable. Additional procedures and terms and conditions may be necessary due to --

(1) Increased need for solicitations; and

(2) Longer term contractual relationships associated with customized service contracts.

(b) Any additional terms and conditions shall be –

(1) Limited to those necessary to ensure effective competition,

(2) Consistent with private sector practices, and

(3) Implemented in a manner that minimizes the requirement for additional review by senior procurement officials or higher headquarters and prioritizes the timely delivery of capabilities.

(4) Inclusion of additional FAR and DFARS clauses may be required

(c) In addition to fixed price purchase orders and Governmentwide commercial purchase card transactions, contracting officers may utilize any other contract type that does not require the submission of certified cost or pricing data and the application of Government cost accounting standards or cost principles. Time and materials contracts shall be preferred over a cost-type contract.

(d) Use of market-based competition for service contracts with a period of performance that exceeds 12 months is prohibited, unless authorized in writing by the Chief of the Contracting Office pursuant to 10 U.S.C 3453.

(e) The following clauses and provisions may be utilized in solicitations and contracts for the acquisition of readily available products and services with customization, but the application of any additional FAR or DFARS clauses or provisions must be approved by the head of the contracting activity on a procurement by procurement bases:

(1) *The provision at* 52.212-1*, Instructions to Offerors -- Commercial Items*. This provision provides a single, streamlined set of instructions to be used when soliciting offers for commercial items and is incorporated in the solicitation by reference (see Block 27a, SF 1449). The contracting officer may tailor these instructions or provide additional instructions tailored to the specific acquisition in accordance with 12.302.

(2) *The provision at* 52.212-3*, Offeror Representations and Certifications -- Commercial Items.* This provision provides a single, consolidated list of representations and certifications for the acquisition of commercial items and is attached to the solicitation for offerors to complete. This provision may not be tailored except in accordance with Subpart 1.4. Use the provision with its Alternate I in solicitations issued by DoD, NASA, or the Coast Guard.

(3) *The clause at* 52.212-4*, Contract Terms and Conditions -- Commercial Items*. This clause includes terms and conditions which are, to the maximum extent practicable, consistent with customary commercial practices and is incorporated in the solicitation and contract by reference (see Block 27, SF 1449). Use this clause with its Alternate I when a time-and-materials or labor-hour contract will be awarded. The contracting officer may tailor this clause in accordance with 12.302

213.105 – Adoption of Private Sector Practices.

It is a common practice in the marketplace for both the buyer and seller to propose terms and conditions written from their particular perspectives. The terms and conditions prescribed in this part seek to balance the interests of both the buyer and seller. These terms and conditions are generally appropriate for use in a wide range of acquisitions. However, market research may indicate other private sector practices that are appropriate for the acquisition of the particular item. These practices should be considered for incorporation into the solicitation and contract if the contracting officer determines them appropriate in concluding a business arrangement satisfactory to both parties and not otherwise precluded by law or Executive order.

213.106 -- Technical Data.

Except as provided by agency-specific statutes, the Government shall acquire only the technical data and the rights in that data customarily provided to the public with a readily available product or service, with or without customization. Readily available products and services are by definition developed exclusively at private expense. When a contract for readily available

products and services, with or without customization, requires the delivery of technical data, the contracting officer may need to include additional provisions and clauses.

213.107 -- Computer Software.

(a) Readily available computer software, with or without customization, or readily available computer software documentation, with or without customization, shall be acquired under licenses customarily provided to the public to the extent such licenses are consistent with Federal law and otherwise satisfy the Government's needs. Generally, offerors and contractors shall not be required to --

(1) Furnish technical information related to readily available computer software or computer software documentation, with or without customization, that is not customarily provided to the public; or

(2) Relinquish to, or otherwise provide, the Government rights to use, modify, reproduce, release, perform, display, or disclose readily available computer software or computer software documentation, with or without customization, except as mutually agreed to by the parties.

(b) With regard to readily available computer software and computer software documentation, with or without customization, the Government shall have only those rights specified in the license contained in any addendum to the contract. For additional guidance regarding the use and negotiation of license agreements for commercial computer software, see 27.405-3.

SUBPART 213.2--ACTIONS AT OR BELOW THE MICRO-PURCHASE THRESHOLD

(Revised August 11, 2016)

213.201 ***

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SUBPART 213.3--SIMPLIFIED ACQUISITION METHODS

(Revised September 19, 2014)

213.301 Governmentwide commercial purchase card.

Follow the procedures at PGI 213.301 for authorizing, establishing, and operating a Governmentwide commercial purchase card program.

(1) "United States," as used in this section, means the 50 States and the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, the Commonwealth of

the Northern Mariana Islands, Guam, American Samoa, Wake Island, Johnston Island, Canton Island, the outer Continental Shelf, and any other place subject to the jurisdiction of the United States (but not including leased bases).

(2) An individual appointed in accordance with 201.603-3(a) also may use the Governmentwide commercial purchase card to make a purchase that exceeds the micro-purchase threshold but does not exceed $25,000, if—

(i) The purchase—

(A) Is made outside the United States for use outside the United States; and

(B) Is for a commercial item; but

(C) Is not for work to be performed by employees recruited within the United States;

(D) Is not for supplies or services originating from, or transported from or through, sources identified in FAR Subpart 25.7;

(E) Is not for ball or roller bearings as end items;

(F) Does not require access to classified or Privacy Act information; and

(G) Does not require transportation of supplies by sea; and

(ii) The individual making the purchase—

(A) Is authorized and trained in accordance with agency procedures;

(B) Complies with the requirements of FAR 8.002 in making the purchase; and

(C) Seeks maximum practicable competition for the purchase in accordance with FAR 13.104(b).

(3) A contracting officer may use the Governmentwide commercial purchase card to purchase readily available products and services, with or without customization, with an aggregate value of $15 million or less, subject to the limitations of the contracting officer's warrant and agency purchase card use limitations. No accompanying purchase order is required, but the Governmentwide commercial purchase card may be used as the payment method for purchase orders of readily available products and services.

(4) Guidance on DoD purchase, travel, and fuel card programs is available in the "Department of Defense Government Charge Card Guidebook for Establishing and

Managing Purchase, Travel, and Fuel Card Programs"
at http://www.acq.osd.mil/dpap/pdi/pc/policy_documents.html. Additional guidance on the fuel card programs is available at http://www.energy.dla.mil.

213.302 Purchase orders.

213.302-3 Obtaining contractor acceptance and modifying purchase orders.

(1) Require written acceptance of purchase orders for classified acquisitions.

(2) See PGI 213.302-3 for guidance on the use of unilateral modifications.

(3) A supplemental agreement converts a unilateral purchase order to a bilateral agreement. If not previously included in the purchase order, incorporate the clause at 252.243-7001, Pricing of Contract Modifications, in the Standard Form 30, and obtain the contractor's acceptance by signature on the Standard Form 30.

213.302-5 Clauses.

(a) Use the clause at 252.213-1 ~~252.243-7001, Pricing of Contract Modifications, in all bilateral purchase orders.~~

~~(d) When using the clause at FAR 52.213-4, delete the reference to the clause at FAR 52.225-1, Buy American—Supplies. Instead, if the Buy American statute applies to the acquisition, use the clause at—~~

~~(i) 252.225-7001, Buy American and Balance of Payments Program, as prescribed at 225.1101(2); or~~

~~(ii) 252.225-7036, Buy American—Free Trade Agreements—Balance of Payments Program, as prescribed at 225.1101(10).~~

213.303 Blanket purchase agreements (BPAs).

213.303-5 Purchases under BPAs.

(b) ***

*****

213.306 SF 44, Purchase Order-Invoice-Voucher.

(a)(1) The micro-purchase limitation applies to all purchases, except that purchases not exceeding the ~~simplified acquisition threshold~~ threshold for the use of readily available acquisition procedures (see 10 U.S.C. 3453) may be made for—

(A) Fuel and oil. U.S. Government fuel cards may be used in lieu of an SF 44 for fuel, oil, and authorized refueling-related items (see PGI 213.306 for procedures on use of fuel cards);

(B) Overseas transactions by contracting officers in support of a contingency operation as defined in 10 U.S.C. 101(a)(13) or a humanitarian or peacekeeping operation as defined in 10 U.S.C. 2302(8); and

(C) Transactions in support of intelligence and other specialized activities addressed by Part 2.7 of Executive Order 12333.

213.307 Forms.

See PGI 213.307 for procedures on use of forms for purchases made using simplified acquisition procedures.

SUBPART 213.4--FAST PAYMENT PROCEDURE

(Revised January 15, 1999)

213.402 Conditions for use.

(a) Individual orders may exceed the ~~simplified~~ readily available acquisition threshold for—

(i) Brand-name commissary resale subsistence; and

(ii) Medical supplies for direct shipment overseas.

~~SUBPART 213.5 SIMPLIFIED PROCEDURES FOR CERTAIN COMMERCIAL ITEMS~~

~~*(Revised September 21, 2015)*~~

~~**213.500-70 Only one offer.**~~

~~If only one offer is received in response to a competitive solicitation issued using simplified acquisition procedures authorized under FAR subpart 13.5, follow the procedures at 215.371-2.~~

~~**213.501 Special documentation requirements.**~~

~~(a) *Sole source (including brand name) acquisitions.* For non-competitive follow-on acquisitions of supplies or services previously awarded on a non-competitive basis, include the additional documentation required by 206.303-2(b)(i) and follow the procedures at PGI 206.304(a)(S-70).~~

252.213-1 -- Contract Terms and Conditions – Readily Available Products and Services.

As prescribed in 213.006, insert the following clause:

Contract Terms and Conditions – Readily Available Products and Services (Oct 2018)

(a) *Inspection/Acceptance.* The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. If repair/replacement or reperformance will not correct the defects or is not possible, the government may seek an equitable price reduction or adequate consideration for acceptance of nonconforming supplies or services. The Government must exercise its post-acceptance rights --

(1) Within a reasonable time after the defect was discovered or should have been discovered; and

(2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) *Assignment*. The Contractor or its assignee may assign its rights to receive payment due as a result of performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C.3727). However, when a third party makes payment (*e.g.,* use of the Governmentwide commercial purchase card), the Contractor may not assign its rights to receive payment under this contract.

(c) *Changes*. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.

(d) *Disputes*. This contract is subject to 41 U.S.C. chapter 71, Contract Disputes. Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance

with FAR Part 33. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) *Definitions*. The definitions, found in FAR Part 2, DFARS Parts 202 and 213 apply to this contract.

(f) *Excusable delays*. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) *Invoice*.

(1) The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the contract to receive invoices. An invoice must include --

(i) Name and address of the Contractor;

(ii) Invoice date and number;

(iii) Contract number, line item number and, if applicable, the order number;

(iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;

(v) Shipping number and date of shipment, including the bill of lading number and weight of shipment if shipped on Government bill of lading;

(vi) Terms of any discount for prompt payment offered;

(vii) Name and address of official to whom payment is to be sent;

(viii) Name, title, and phone number of person to notify in event of defective invoice; and

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision, contract clause (*e.g.*, 52.232-33, Payment by Electronic Funds Transfer— System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer—Other Than System for Award Management), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(2) Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315.

(h) *Patent indemnity*. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) Payment.

(1) Items accepted. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract.

(2) Prompt Payment. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and prompt payment regulations at 5 CFR Part 1315.

(3) Electronic Funds Transfer (EFT). If the Government makes payment by EFT, see 52.212-5(b) for the appropriate EFT clause.

(4) *Discount*. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.

(5) *Overpayments*. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall—

(i) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the—

(A) Circumstances of the overpayment (*e.g.,* duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);

(B) Affected contract number and delivery order number, if applicable;

(C) Affected line item or subline item, if applicable; and

(D) Contractor point of contact.

(ii) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

(6) Interest.

(i) All amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 7109, which is applicable to the period in which the amount becomes due, as provided in (i)(6)(v) of this clause, and then at the rate applicable for each six-month period at fixed by the Secretary until the amount is paid.

(ii) The Government may issue a demand for payment to the Contractor upon finding a debt is due under the contract.

(iii) Final decisions. The Contracting Officer will issue a final decision as required by 33.211 if—

(A) The Contracting Officer and the Contractor are unable to reach agreement on the existence or amount of a debt within 30 days;

(B) The Contractor fails to liquidate a debt previously demanded by the Contracting Officer within the timeline specified in the demand for payment unless the amounts were not repaid because the Contractor has requested an installment payment agreement; or

(C) The Contractor requests a deferment of collection on a debt previously demanded by the Contracting Officer (see 32.607-2).

(iv) If a demand for payment was previously issued for the debt, the demand for payment included in the final decision shall identify the same due date as the original demand for payment.

(v) Amounts shall be due at the earliest of the following dates:

(A) The date fixed under this contract.

(B) The date of the first written demand for payment, including any demand for payment resulting from a default termination.

(vi) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on—

(A) The date on which the designated office receives payment from the Contractor;

(B) The date of issuance of a Government check to the Contractor from which an amount otherwise payable has been withheld as a credit against the contract debt; or

(C) The date on which an amount withheld and applied to the contract debt would otherwise have become payable to the Contractor.

(vii) The interest charge made under this clause may be reduced under the procedures prescribed in 32.608-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(j) *Risk of loss*. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:

(1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or

(2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.

(k) *Taxes*. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) *Termination for the Government's convenience*. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) *Termination for cause*. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) *Title*. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) *Warranty*. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) *Limitation of liability*. Except as otherwise provided by an express warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) *Other compliances*. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) *Compliance with laws unique to Government contracts.* The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. chapter 37, Contract Work Hours and Safety Standards; 41 U.S.C. chapter 87, Kickbacks; 41 U.S.C. 4712 and 10 U.S.C. 2409 relating to whistleblower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. chapter 21 relating to procurement integrity.

(s) *Order of precedence*. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order:

(1) The schedule of supplies/services.

(2) The Assignments, Disputes, Payments, Invoice, Other Compliances, Compliance with Laws Unique to Government Contracts, and Unauthorized Obligations paragraphs of this clause.

(3) The clause at 52.212-5.

(4) Addenda to this solicitation or contract, including any license agreements for computer software.

(5) Solicitation provisions if this is a solicitation.

(6) Other paragraphs of this clause.

(7) The Standard Form 1449.

(8) Other documents, exhibits, and attachments.

(9) The specification.

(t) Reserved

(u) Unauthorized Obligations.

(1) Except as stated in paragraph (u)(2) of this clause, when any supply or service acquired under this contract is subject to any End Use License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(i) Any such clause is unenforceable against the Government.

(ii) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(iii) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(2) Paragraph (u)(1) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

(v) *Incorporation by reference*. The Contractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the contract.

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Section 2
Portfolio Management Framework

In a threat environment that is increasingly dynamic and complex, defense acquisition must deliver capabilities in an equally dynamic and efficient way. Moving to a total lifecycle, multitiered, capability portfolio management framework promises to considerably improve the capital investments and management process in the near and longer term.

RECOMMENDATIONS

Rec. 36: Transition from a program-centric execution model to a portfolio execution model.

Rec. 37: Implement a defensewide capability portfolio framework that provides an enterprise view of existing and planned capability, to ensure delivery of integrated and innovative solutions to meet strategic objectives.

Rec. 38: Implement best practices for portfolio management.

Recommendations continued on following page.

RECOMMENDATIONS

Rec. 39: Leverage a portfolio structure for requirements.

Rec. 40: Professionalize the requirements management workforce.

Rec. 41: Establish a sustainment program baseline, implement key enablers of sustainment, elevate sustainment to equal standing with development and procurement, and improve the defense materiel enterprise focus on weapon system readiness.

Rec. 42: Reduce budgetary uncertainty, increase funding flexibility, and enhance the ability to effectively execute sustainment plans and address emergent sustainment requirements.

INTRODUCTION

> *In general, agencies should establish and manage portfolios of programs, projects, and other work in accordance with Federal policy and nationally recognized standards.*[1]

In June 2018, the Section 809 Panel submitted its *Volume 2 Report,* which presented rationale for structural and procedural changes for DoD's acquisition and sustainment enterprise that included forging closer relationships among requirements, PPBE, and acquisition; delegating authority; and "moving from program-centric to portfolio-driven management."[2]

Although there have been numerous acquisition reform efforts and substantive changes to strategy, structure, processes, and procedures in DoD acquisition and sustainment, a recent paper nonetheless stated, "DoD [acquisition] support systems are grounded in 50-year old structures which … brought in systems analysis and centralized management processes. By the end of the 60s we had the PPBES *(Planning, Programming, Budgeting, Execution System)* as well as the underlying structures of JCIDS *(Joint Capability Integrated Development System)* and the [acquisition] 5000 series *(DoD 5000 directives and instructions)*. Many revisions have been proposed and made along the way, but the fundamental structure remains centralized management.[3] Program executive officers (PEOs) were created to enable the possibility of implementing a portfolio approach, but the focus on program-centric management continues. As the Section 809 Panel noted in its *Volume 2 Report*,

> *The 2018 National Defense Strategy refocuses DoD on long-term, strategic competition with revanchist powers. Interstate competition from actors such as China and Russia are now DoD's top priority. DoD aims to increase its competitiveness and restore dominance by building a more lethal Joint Force, rebuilding readiness, and attracting new partners through business practices that improve performance and affordability. The defense acquisition system serves as a critical enabler, and as such must accomplish the following objectives of the National Defense Strategy:*
> - *Deliver performance at the speed of relevance.*
> - *Organize for innovation.*
> - *Drive budget discipline and affordability.*
> - *Streamline rapid, iterative approaches from development to fielding.*
> - *Harness and protect the national security innovation base.*
>
> *Speed, innovation, and iterative capability development are essential, as are funding availability and flexibility; however, these vital characteristics remain elusive in the program-centric requirements development and procurement processes. In the current system, process and cost supersede delivery of up-to-date, well-conceived, and effective capabilities to warfighters. Delivering advanced capabilities at speed and scale must be a strategic DoD priority to outpace the threat and seize technological opportunities. Speed and scale, however, rely on a robust, risk-taking culture to deliver advanced capabilities. Defense*

[1] OMB Circular No. A-11: Preparation, Submission, and Execution of the Budget, accessed December 30, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf.
[2] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 4 (2018).
[3] Charles R. Mahon and John D. Driessnack, *Winning in the 21st Century: Command by Negation within a Portfolio, Program, Project Structure, a Point Paper to the Section 809 Panel,* September 2017, accessed June 7, 2018, https://www.pmi.org/learning/library/winning-21st-century-point-paper-section-809-panel-11314.

> *acquisition should do more to leverage prototyping, experimentation, and other developmental activities, balancing innovation and operational risk. … An example of this experimentation is the United States Special Operations Command's acquisition model comprising speed, risk tolerance, scale, inclusivity, and relationships. The acquisition culture in this model is a portfolio approach which emphasizes an aggressive, operator-focused and innovative acquisition culture with an emphasis on agility and speed of delivery to the customer.*[4]

The Section 809 Panel's portfolio management framework asserts that DoD should transition from program-centric to portfolio-centric capability development and sustainment. Such a shift is fundamental to positioning DoD strategically and structurally for success in the 21st Century. Portfolio management has matured in industry, with ANSI and ISO standards published for more than a decade. GAO found in 2015 that "DOD is not using an integrated portfolio management approach to optimize its weapon system investments at the enterprise level, as called for in best practices."[5] The consequences of a continued program-centric approach are well documented: redundancy, increased costs, delays, and fewer quantities or capabilities, among others.[6]

Despite the many changes during the past 50 years, the Section 809 Panel found the existing decision support framework, centered around major programs with a centralized structure, inhibits achievement NDS-desired characteristics. "Agility is possible in large organizations when current knowledge of organizational structural theories are understood" and implemented.[7] As outlined in the *Volume 2 Report*, the structural change to a portfolio-centric framework would address four elements: portfolio execution, enterprise capability portfolio management, sustainment, and requirements.

This section has five recommendations with supporting analysis that expand on those elements of portfolio management, along with recommendations on professionalizing the requirements management (RM) workforce in a portfolio framework and sustainment budget issues. Despite recent changes in organizational structure and authorities based on recent NDAAs, substantial structural and process/procedural challenges need to be addressed. Recommendation 36 presents the case for transitioning PEOs in the Military Services and Defense Agencies to portfolio acquisition executives (PAEs). PAEs would have a portfolio of systems supporting a specific capability to manage from inception to disposal, a total lifecycle, multi-tiered, capability portfolio management framework. Recommendation 37 addresses need for, and operation of, capability portfolios at the enterprise level to assist in investment decisions, as well as gap and overlap assessment. Recommendation 38 presents a selection of portfolio best practices. Recommendations 39 and 40 consider requirements in a portfolio setting and professionalizing the RM workforce. Recommendations 41 and 42 establish a sustainment program baseline and address issues related to sustainment funding.

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[4] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 4 (2018).
[5] GAO, *Weapon System Acquisitions: Opportunities Exist to Improve the DOD's Portfolio Management, GAO-15-466,* August 2015, 10, accessed November 26, 2018, https://www.gao.gov/assets/680/672205.pdf.
[6] GAO, *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes, GAO-07-388,* March 2007, 5, accessed November 26, 2018, https://www.gao.gov/assets/260/258331.pdf.
[7] Charles R. Mahon and John D. Driessnack, *Winning in the 21st Century: An Acquisition Point Paper to the Section 809 Panel,* September 2017, accessed June 7, 2018, https://www.pmi.org/learning/library/winning-21st-century-point-paper-section-809-panel-11314

All recommendations recognize and address challenges to reach the end goal of a total lifecycle, multitiered, capability portfolio management framework that integrates the decision support systems into a Defense Capabilities Acquisition and Sustainment Framework (DCASF). (See recommended draft revision to DoDD 5000.01 attached in the Implementation Details at the end of Section 2.)

RECOMMENDATIONS

Recommendation 36: Transition from a program-centric execution model to a portfolio execution model.

Problem

The defense acquisition system (DAS) is beleaguered by a number of issues that challenge the United States ability to maintain military superiority. The following characteristics of the current DAS require immediate change:

- A compliance-heavy culture driven by fear of failure.
- A workforce belief that failures will be punished rather than celebrated, despite leadership pronouncements to take more risk and to *fail fast*.
- Until recently, a highly centralized organizational structure under which sequentially made decisions and a long *coordination* process led to unacceptable timelines, causing program delays and administrative inefficiencies.[8]
- Milestone decisions that require excessive program documentation, multiple program reviews, and protracted coordination.
- Individual program-centric thinking and decision making versus mission and kill-chain-centric thinking.
- A rigid funding environment that stifles agility.
- Lack of decision authority commensurate with management responsibilities.

Background

DoD's acquisition process comprises three decision systems: the Joint Capabilities Integration and Development System (JCIDS) for identifying and validating user requirements; the Planning, Programming, Budgeting, and Execution (PPBE) System, for allocating resources and budgeting; and DAS, for developing and procuring the item. JCIDS, PPBE, and DAS—the defense acquisition Decision Support Systems (DSS)—together make up what is called *big A acquisition,* a system in which each of the three processes operates independently with separate chains of command.

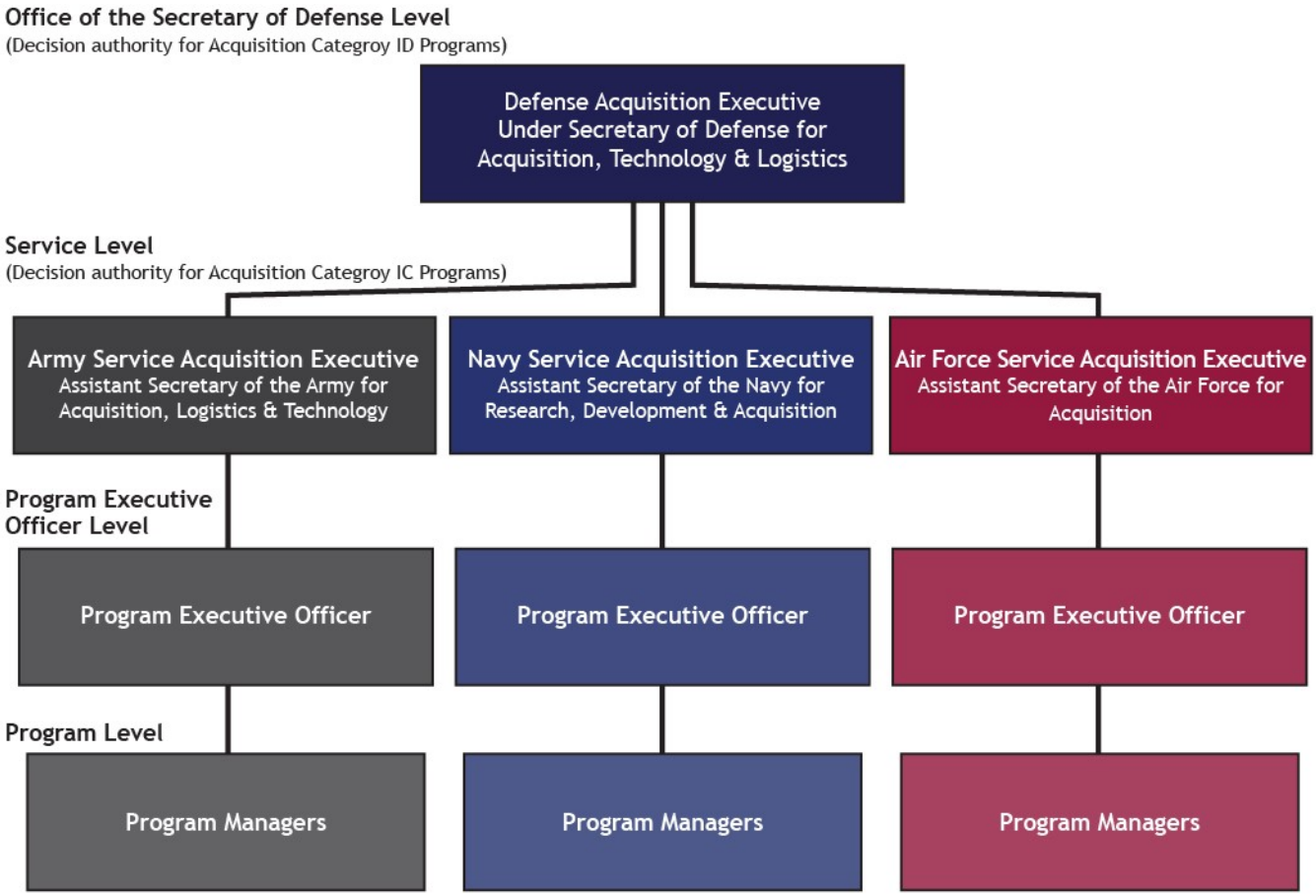
[8] GAO, *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes, GAO-07-388,* March 2007, accessed November 26, 2018, https://www.gao.gov/assets/260/258331.pdf.

Although there have been numerous acquisition reform efforts in recent decades, acquisition reforms in the 1980s that stemmed from the Goldwater–Nichols Act are most pertinent to the concerns listed above. It was among these reforms that the acquisition, requirements, and budgeting organizations were separated throughout DoD. "Goldwater–Nichols historically changed DoD acquisition by directing the establishment of the Office of the Under Secretary of Defense for Acquisition (USD[A]), and directing a similar structure of service component acquisition executives in authority over PEOs [program executive officers] and PMs [program managers]."[9] This reform came amidst damaging reports of overpriced spare parts and other forms of alleged waste and fraud that drew scrutiny from Congress in 1985. President Ronald Reagan appointed the Blue Ribbon Commission on Defense Management (commonly referred to as the Packard Commission) to identify issues in the defense acquisition process. Two of the key problems identified were fragmented responsibility for acquisition and no senior official at the Office of the Secretary of Defense (OSD) level to provide acquisition system supervision. The commission recommended establishing a USD(A), a comparable senior position for each of the Military Services, and PEOs to resolve gaps in major weapons systems acquisition. A key attribute of this organization structure was an acquisition chain of command through the Service Civilian Secretaries, not the uniformed military leadership, as illustrated in Figure 2-1 below.

The weapon systems organization and management framework established by Goldwater–Nichols is program centric: PMs report through PEOs to Service acquisition executives (SAEs) and then the defense acquisition executive (DAE) as required. The milestone decision authority (MDA) for major programs, typically the DAE or SAE, makes the key acquisition decisions for the program. These decisions include the overall strategy, contracting and acquisition approaches, entrance and exit criteria for key milestones, and the milestone decision itself. PEOs are often responsible for overseeing execution of multiple acquisition programs and can have acquisition authorities over smaller programs as delegated from the DAE–SAE chain of command. The PEO, as the executive manager of assigned programs, typically oversees one or more PMs. PMs are responsible for weapons systems development, production, and sometimes lifecycle sustainment. Classic program performance metrics are cost, schedule, and performance results as compared to the approved acquisition program baseline (APB).

[9] Dale P. Bond, Scott M. Davis, and Aaron D. Pearsall, *The Goldwater–Nichols Act of 1986: 30 Years of Acquisition Reform,* Naval Postgraduate School, MBA Professional Report, December 2016, accessed September 27, 2018, https://calhoun.nps.edu/bitstream/handle/10945/51649/16Dec_Bond_Davis_Pearsall.pdf?sequence=1&isAllowed=y.

Figure 2-1. Acquisition Decision-Making Structure



Discussion

The Section 809 Panel researched major defense acquisition programs and met with PEOs, PMs, and program personnel from programs that were identified as being successful. Key enablers common to these successful programs include the following:

- Requirements that are well developed and understood to the user and acquisition communities.
- Continuous and open communication across requirements, acquisition, and programming communities.
- Direct access to decision makers for timely decisions that cross the three communities.
- A tie to the warfighting mission and delivery to an operational cadence.
- Social rewards for risk taking and delivering *product-mission fit*, with all functionals—including ideally colocated contracting officers and supporting program management—believing they are accountable to program success.
- A culture of trust.

Lacking of trust continues to exist across the system in areas such as the following:

- PMs must navigate through an inefficient and time-consuming process to reach key acquisition decision makers.
- Delays in program decision making are costly, ineffective, and add undue risk and schedule to the program and ultimately the warfighter.
- Valuable talent and resources are wasted.
- Each individual in the coordination chain to the MDA has the potential to delay advancement of the signature package in return for some changes in the acquisition plan. Those individuals are not accountable for the program success.

Typically, overall requirements generation originates with the Combatant Commanders (CCDRs) in conjunction with the Military Service Chiefs. The process is to identify capability gaps that correlate to operational requirements and enter the requirements validation process. Ideally, candidate solutions are postulated, analyzed, and evaluated by OSD, the Joint Chiefs of Staff (JCS), and the Military Services and iterated with the acquisition community. In rare cases, requirements are monetized so decision makers can choose how much they want to spend for what capability. This ideal chain of events rarely happens because of the degree of collaboration and continuous work needed to get the requirement right. Further effort and collaboration is needed to assure the funding profile, which is owned by the PPBE community, is correct. If modifying a current system or developing a new system is required to meet a new threat, resources and requirements are passed to the acquisition system. Too often the acquisition community is brought in—after all the requirements and funding decisions have been made—to execute what has already been planned by the other two communities. Additionally, there is a need to ensure innovative capabilities for which there is no current requirement.

Because the PEO and PM must execute to requirements and budgets established outside their control, their ability to optimize efficiencies or interoperability across programs or a strategic enterprise vision is extremely limited. Although this process may have sufficed during previous eras of slower technological and threat advances, it is hampering acquisition agility today. As an extreme example, in modern iterative software development (such as Agile or DevOps) there are constant trade-offs on requirements, budget, and priorities per iteration (sometimes called sprints), as often as every 2 weeks. Such modern development techniques are extremely difficult to accomplish across the three separate authority areas, each of which has its own chain of command and decision-making processes.

The table below shows the limits per type of appropriation, which illustrate the current lack of budgetary flexibility allowed to the acquisition chain. The PEO is limited to a BTR of $10 million or 20 percent (whichever is less) of RDT&E, or $20 million or 20 percent (whichever is less) of Procurement funding. Anything above these thresholds requires congressional approval as ATR. Major defense acquisition program (MDAP) designation is baselined at $480 million in FY 2014 dollars in RDT&E and $2.79 billion in FY 2014 dollars in Procurement. BTR authority provides less than 2 percent flexibility for program execution. The current changes in operations, threats, and priorities warrant faster and greater fund shifting to optimize investments.

Table 2-1. Appropriation Limits

	PEO Authority	Congressional Approval	MDAP Baseline	% of MDAP Baseline
Appropriation	Below Threshold Reprogramming (BTR)	Above Threshold Reprogramming (ATR)		
Research, Development, Test and Evaluation (RDT&E)	$10M or 20% (whichever is less)	Above $10M or 20%	$480M	2.0%
Procurement	$20M or 20% (whichever is less)	Above $20M or 20%	$2,790M	0.7%

Congress recognized this overly centralized acquisition execution in DoD. In Section 825 of the FY 2016 NDAA, it designated MDAPs be managed at the SAE level or lower unless otherwise directed by the Secretary of Defense. SAEs have further delegated milestone decision authority (MDA) of Acquisition Category (ACAT) II Programs and below to PEOs. On the requirements, Section 802 of the FY 2016 NDAA designated Military Service Chiefs responsible for requirements. Despite this progress, more is required to increase agility, responsiveness, and efficiency within defense acquisition, specifically with requirements and budget. Both FY 2016 NDAA sections underscore the utility of moving to a portfolio approach.

Transitioning defense acquisition from a program-centric model to a portfolio model will enable the agile, flexible, and decentralized organization DoD needs. To reduce decision delay time, unnecessary workarounds, and inefficiencies seen in the current system, PAEs would be delegated a substantial level of acquisition, requirements, and budget decision authority. PAEs' ability to integrate, manage, and execute programs within the portfolio would provide the flexibility, agility, and increased lethality required for responding to evolving threats and technology. The PAE would optimize cost reduction and schedule effectiveness and manage risks and opportunities, such as introduction of new technologies across the portfolio to maximize mission impact. To capitalize on the benefits of portfolio management, DAS must transition the current PEO role to a PAE role. The PAE role would replace the current Title 10 definition of the PEO with expanded roles and responsibilities as discussed below.

The PAE would be responsible for iteratively delivering capabilities based on technological maturity, cost, schedule, system performance, risks, and threat assessments. As seen in the success of the Air Force Rapid Capabilities Office, the PAE should have the authority to shape system requirements below key performance parameters (KPPs) within the portfolio to maximize the agility and flexibility required. Requirements organizations and operational commands currently invest substantial time on system requirements documents and collaboration with program offices with varying levels of success. Increased integration of the operational and acquisition communities is required to deliver mission capabilities with greater speed and agility.

One possible approach would be to apply mission engineering to map system capabilities to mission needs at the capability portfolio level. Mission engineering—which combines the structure of systems engineering with the tactical insights of operational planning—could provide a basis for the following:

- Assessing portfolio contributions to the delivery of capabilities against assigned kill chains and threads.
- Understanding the effects of investment decisions on operational priorities.
- Assessing the fighting capability of existing and planned weapon systems.
- Identifying capability gaps in light of existing and planned acquisitions.
- Providing a common mission picture to senior leaders and customer communities.

Although programs would still comply with JCIDS requirements documentation (approved at the Military Service level), the Military Services and Defense Agencies should develop a set of capstone requirements and related materials for each execution portfolio. These requirements would guide the iterative delivery of an integrated suite of capabilities to maximize operational impact. (See Recommendation 38).

The Military Service headquarters leadership, operational commands, and Joint Staff should collaborate to provide each execution portfolio with an integrated set of capstone requirements and threat assessments from the intelligence community. This approach would focus the Joint Staff and Military Service Chiefs on the strategic operational requirements, while enabling portfolios to manage speed and agility of capability requirements for specific systems/programs at lower levels. The PAE would require an embedded, empowered operational representative. This person would provide insight on operations and threats to shape portfolio priorities and capability roadmaps and provide rapid feedback and connections with operational end users. The capstone requirements document would provide flexibility for PAE's to make appropriate trade-offs between program capabilities and program cost, schedule, and performance. In cases for which substantial program changes require higher-level approval, Configuration Steering Boards should work with the PAE to ensure expedited decisions.

One of the biggest challenges to implementing a portfolio structure is allocation of program budgets. Most procurement programs today are funded and managed through budget line items, yet research and development (R&D) programs are funded and managed through accounts called program elements (PEs). A single weapon system is likely to include multiple budget items and PEs. The multiple programs included in the portfolio of a PAE could, unless modified, include hundreds of line items and PEs. Reallocating funds between budget items and PEs requires approvals by senior DoD officials (for BTR) and by Congress (for ATR). Such approvals can be time-consuming to obtain (and in some cases are denied), limiting the ability of PEOs and PMs to respond to changes in available technology and other portfolio and program developments.

In several cases, DoD has successfully developed and procured a system of systems within a single line item or PE. The Evolved Expendable Launch Vehicle (EELV) program, for example, provides for the

development of a range of domestic space launch systems and upgrades within a single PE. As another example, the Family of Medium Tactical Vehicles (FMTV) program provides for the procurement of a series of trucks and trailers that vary by mission and payload within a single line item. The budget structures of the missile defense program and the Stryker family of vehicles include examples of similarly broad line items and PEs. These more broadly structured budget items and PEs provide portfolio managers more flexible budgeting and enable them to make responsible decisions to move money within their portfolios in an agile manner. In these cases, transparency and accountability have been maintained by accounting for expenditures within the line item or PE through subaccounts—known variously as project codes, end items, cost elements, or budget program activity codes.

Congress and DoD should work together to increase acquisition system agility by building on these examples to provide greater funding flexibility at the portfolio level. The Military Services should review and rationalize the line item and PE structure for each major portfolio. This review should: (a) address cases in which programs or systems have been subdivided into multiple line items or PEs, making them more difficult to manage and (b) identify cases in which multiple programs or systems intended to provide a common capability could be combined into a single line item or PE (in the manner of the EELV or FMTV programs). Enhanced BTR authority could provide additional resource flexibility. Several proposed funding flexibility initiatives are described elsewhere in this report.

A pilot program should be established under which an entire portfolio in each Military Service would be funded under a single line item or PE. It is unlikely that Congress would be willing to grant such resource flexibility for a portfolio like the Navy PEO for Ships or the Army PEO for Ground Combat Systems, which includes multiple, highly visible major weapon systems. DoD may be able to build trust with Congress, however, if it shows that it can responsibly manage less visible portfolios. Examples of such portfolios include the portfolio of the Army PEO for Simulation, Training and Instrumentation or the Air Force PEO for Command, Control, Communications, Intelligence and Networks.

The PAE should be delegated MDA authority whenever appropriate. The PAE should have an assigned chief of contracting office (COCO) (see Recommendation 38), along with other senior functional staff with authority to allow the PAE to manage cost, schedule, and performance within the portfolio. As addressed more fully in Recommendation 41, the PAE should be responsible for sustainment management through sustainment program baselines (SPBs) managed by the PMs and product support managers (PSMs) throughout the process.

PAEs should have the authority, autonomy, and accountability to iteratively deliver an integrated suite of capabilities through empowered portfolio management. Enterprise capability portfolio managers should also be established and paired with existing functional capability boards (FCBs), at the OSD level. This shift would ensure an enterprise perspective on capability trade-offs and provide for the integration of requirements, acquisition, and resource decisions throughout the organization.

Conclusions

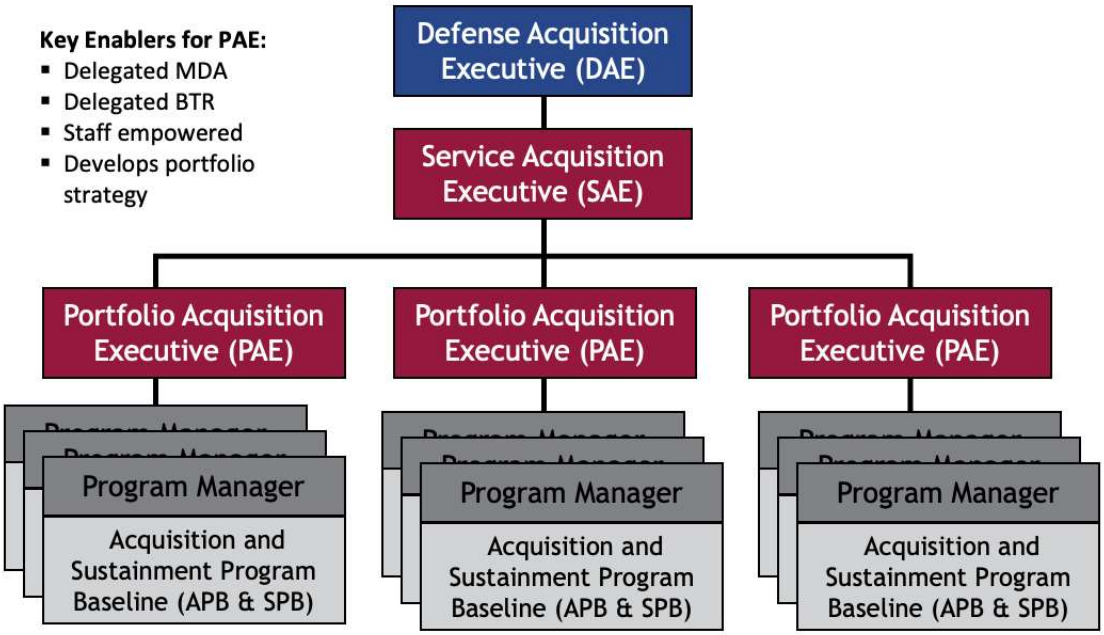
Transitioning defense acquisition from a program-centric model to a portfolio model will enable the agile, flexible, and decentralized organization DoD needs. To reduce decision delay time and unnecessary workarounds and inefficiencies seen in the current system, the PAE would be empowered

with roles and responsibilities, including resources, programming, budgeting, and acquisition authorities. The PAE's ability to integrate, manage, and execute programs within the portfolio would provide the necessary flexibility, agility, and increased lethality required to be responsive to evolving threats and technology. The PAE would optimize cost and schedule and manage risks across the portfolio to maximize mission impact of the portfolio's capabilities.

The PAE should make acquisition, procurement, and sustainment decisions for agility and responsiveness in executing emerging needs in a timely and effective manner. PAEs need to be empowered to prioritize needs, make early go/no-go decisions about alternative solutions, and allocate resources to portfolio priorities for mission impact within fiscal constraints. The PAE would manage risk and opportunities across the portfolios for greater overall cost, schedule, and operational effectiveness.

Under this structure, notionally shown in Figure 2-2, the PAE would be responsible and accountable for the development, procurement, and lifecycle management of the operational capability across the portfolio as captured in the baseline documents.

Figure 2-2. Portfolio Management Construct (Notional)



PAEs would be given broader flexibility to move funds by rationalizing line item and PE structures, identifying cases in which families of capabilities could be funded under a single line item or PE, providing enhanced BTR authority, and developing a pilot program under which an entire portfolio in each Military Service would be managed under a single line item or PE. This more agile funding approach would increase the effective use of constrained resources and enable PAEs to direct funds toward the highest-priority capabilities with the greatest enterprise impact. The initial change would not require a wholesale restructuring of the PPBE process but simply would call for shaping a few PEs

for an initial set of portfolios.[10] As Congress and DoD gain trust in a more flexible resource allocation system, DoD should be able to delegate more and more authority to PAEs, enabling them to optimize acquisition outcomes.

PMs focus on executing the cost, schedule, and technical performance of the acquisition program; PAEs must look beyond the current state. The PAE must continually assess emerging threats, operational effectiveness, and the portfolio's capabilities and harness opportunities evolving from technologies and innovation. A key enabler of the portfolio management concept will be the requirement to develop and maintain a portfolio capability and technology roadmap as part of the 20-year portfolio strategy under Recommendation 38.

The PAE responsibilities should include the following:

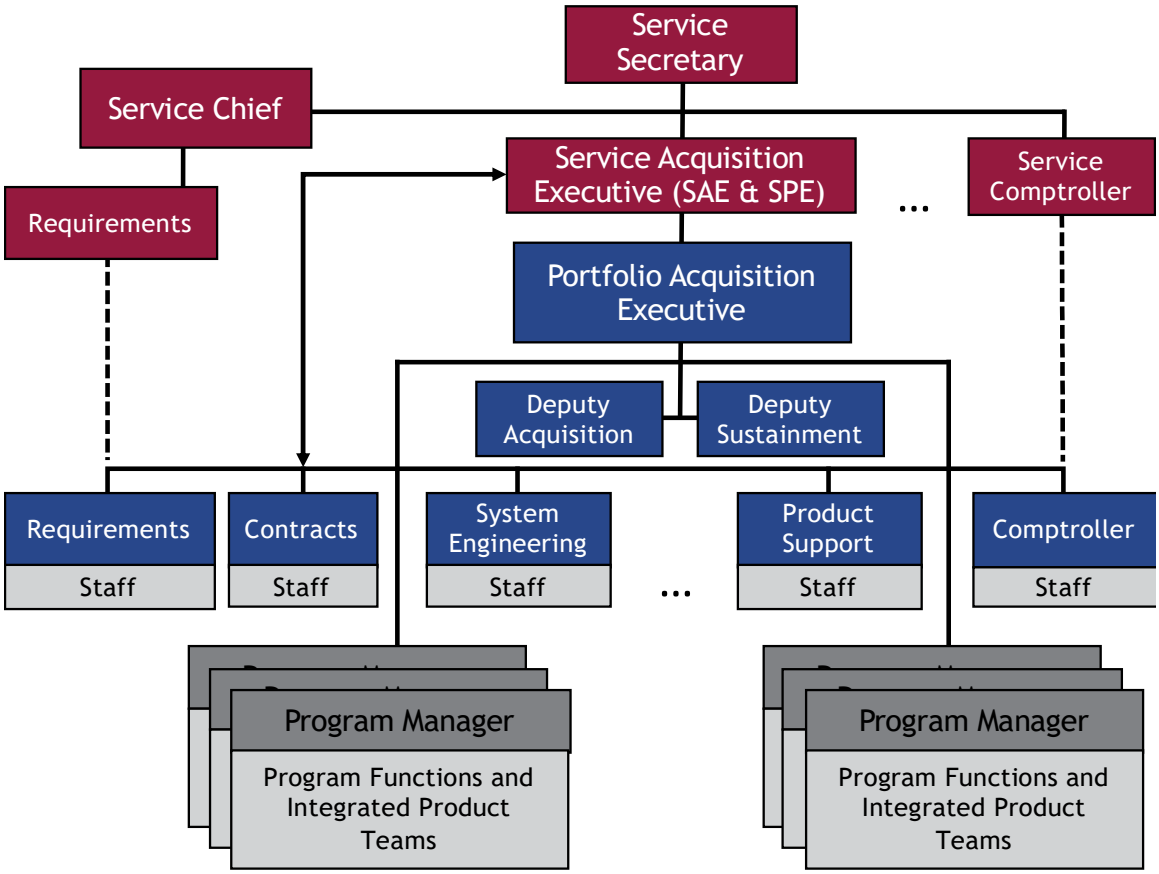
- Developing and maintaining portfolio roadmaps, including mission engineering plans, to strategically plan current and future program development and current program execution.
- Coordinating with Enterprise Capability Portfolio Managers to ensure a cross-cutting view of capability trade-offs.
- Ensuring interoperability is maintained with the enterprise capability architecture.
- Managing the full lifecycle, including acquisition and sustainment management via APBs and SPBs.
- Working with the science and technology (S&T) and R&D communities to prototype, experiment, and demonstrate solutions to shape new programs, increments, and capabilities.
- Shaping lower level requirements based on technology, cost, schedule, threat, and risk trade-offs, in active collaboration with key stakeholders within a Capstone Requirements Document.
- Managing and prioritizing resources across programs within the portfolio with budget transfer authority and other funding flexibility initiatives.

The PAE structure, notionally depicted in Figure 2-3, would enable the following:

- Increased responsiveness and mission impact.
- Greater system interoperability and system-of-systems designs/architectures.
- Increased cost efficiency.
- Reduced review and decision timelines.
- Reduced program documentation and reviews outside of the portfolio.
- Reduced reporting requirements to DAE, SAE, and Congress.

[10] Mike Janiga and Pete Modigliani, "Think Portfolios, Not Programs," Defense Acquisition Research Journal, November–December 2014, accessed November 26, 2018, http://dau.dodlive.mil/2014/12/19/think-portfolios-not-programs/#content.

Figure 2-3. Portfolio Acquisition Executive (Notional)



SPE is Senior Procurement Executive

In a complex, integrated environment, the DAS can no longer rely on a structure based on individual systems but rather should embrace a capability-focused, portfolio-centric structure modeled on the commercial sector. Managing requirements, budgets, and staffs at the portfolio level would enable dynamic allocation to high-priority programs. Portfolio strategies, roadmaps, and architectures would guide program development.[11] Establishing a management of portfolio capabilities would allow the Military Services to execute in a *speed to the fleet* environment in which requirements, resources, and acquisition decisions are made at the portfolio level instead of the individual program-level. Implementing a portfolio approach would require a substantial shift in authority and a shift in the culture from fear and mistrust to trust and empowerment.

To transition from a program-centric execution model to a portfolio execution model the following should take place:

- Establish the position of a portfolio acquisition executive (PAE) to manage portfolio execution. Title 10 change is required to enable PAEs to have enhanced responsibilities and authorities for optimal execution and integration of requirements, acquisition, and budgets to deliver mission

[11] Ibid.

capabilities to warfighters. PAEs should have authority, autonomy, and accountability to iteratively deliver an integrated suite of capabilities through empowered portfolio management.

- Rationalize budget line item and PE structure within acquisition portfolios to maximize resource flexibility and responsiveness. Establish a pilot program under which each Military Service would designate an acquisition portfolio to be managed under a single line item or PE.

- Identify requirements at the portfolio level in a capstone requirements document.

Implementation

Legislative Branch

Note: Legislative implementation here are identified as subrecommendations to allow for better reference to them in the draft legislation text in the Implementation Details section that follows.

- Subrec. A: Direct DoD to establish a PAE structure using a portfolio-centric approach that integrates requirements, PPBE, and acquisition.

- Subrec. B: Direct DoD to conduct a comprehensive review of the existing budget line item and program element structure for acquisition programs, with the objective of (a) addressing cases in which programs or systems have been subdivided into multiple line items or PEs, making them more difficult to manage and (b) identifying cases in which multiple programs or systems intended to provide a common capability could be combined into a single line item or PE.

- Subrec. C: Authorize DoD to establish a pilot program, under which one acquisition portfolio for each Military Service would be managed under a single budget line item or PE, providing the portfolio manager with flexibility to move money in response to changes in technology and other program developments.

Executive Branch

- Revise procurement line items and R&D PEs in accordance with the findings of the comprehensive review; develop and submit new budget and program documents to Congress in accordance with the revised line item and PE structure.

- Identify acquisition portfolios in each Military Service to be managed under a single line item or PE, and submit to Congress for approval. The PAE responsibilities will include the following:

  - Direct development and maintenance of portfolio roadmaps, including mission engineering plans, to strategically plan current and future program development and current program execution.
  - Enable coordinating between execution and enterprise capability portfolio managers to ensure a cross-cutting view of capability trade-offs.
  - Ensure interoperability is maintained with the enterprise capability architecture.
  - Manage the full lifecycle, including acquisition and sustainment management via APBs and SPBs.

  - Work with the S&T and R&D communities to prototype, experiment, and demonstrate solutions to shape new programs, increments, and capabilities;
  - Shape lower-level requirements based on technology, cost, schedule, threat, and risk trade-offs, in active collaboration with key stakeholders within a Capstone Requirements Document.
  - Manage and prioritize resources across programs within the portfolio
  - Implement process changes with empowered portfolio management experience
  - Reduce review and decision timelines.
  - Reduce documentation and reviews outside of the portfolio.
  - Reduce reporting requirements.

- Incorporate the above recommendations in a revision to DoDD 5000.01, The Defense Acquisition System and Operating Instructions. A revised DoDD 5000.01 has been developed and is attached in the Implementation Details for this section.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 2.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 37: Implement a defensewide capability portfolio framework that provides an enterprise view of existing and planned capability, to ensure delivery of integrated and innovative solutions to meet strategic objectives.

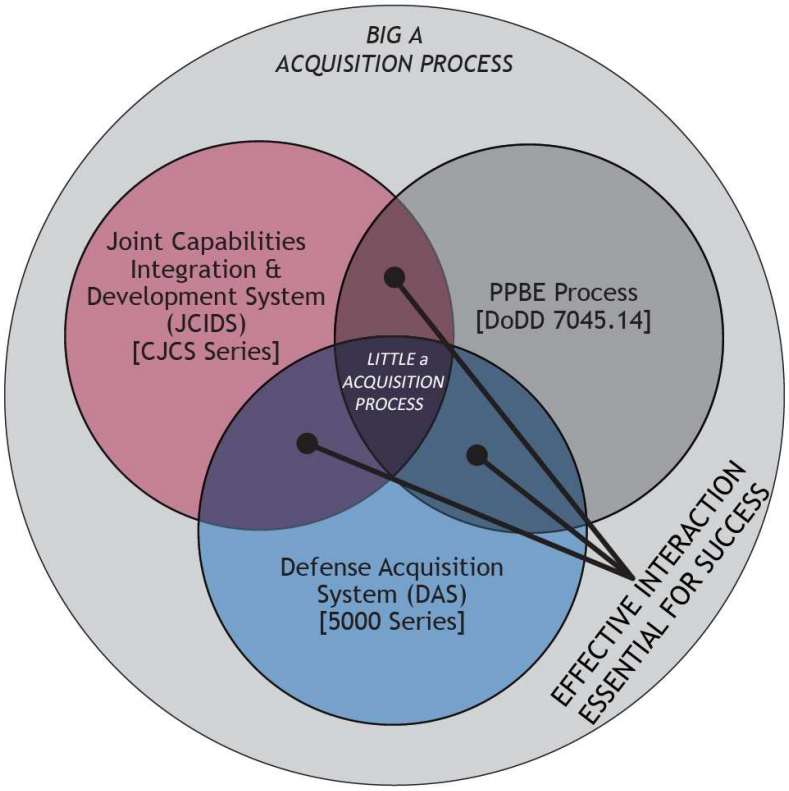
Problem

DoD's separate requirements, budgets, and acquisition decision-making processes fail to enable an enterprisewide view of existing and planned capabilities across Military Services and Defense Agencies to support timely and informed resource allocation decisions. The disjointed systems that make up the defense acquisition DSS (*big A acquisition* depicted in Figure 2-4), is one of the major inhibitors to achieving timeliness, flexibility, agility, and innovation.[12] The second major inhibitor is lack of a DoD-wide capability view and awareness to inform resource allocation decisions at all levels.

The friction and lack of connectivity among the three systems can impede rapid response to priority needs and timely delivery of material solutions.

[12] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 30–43 (2018).

Figure 2-4. Defense Acquisition Decision Support Systems (DSS – Big A Acquisition)



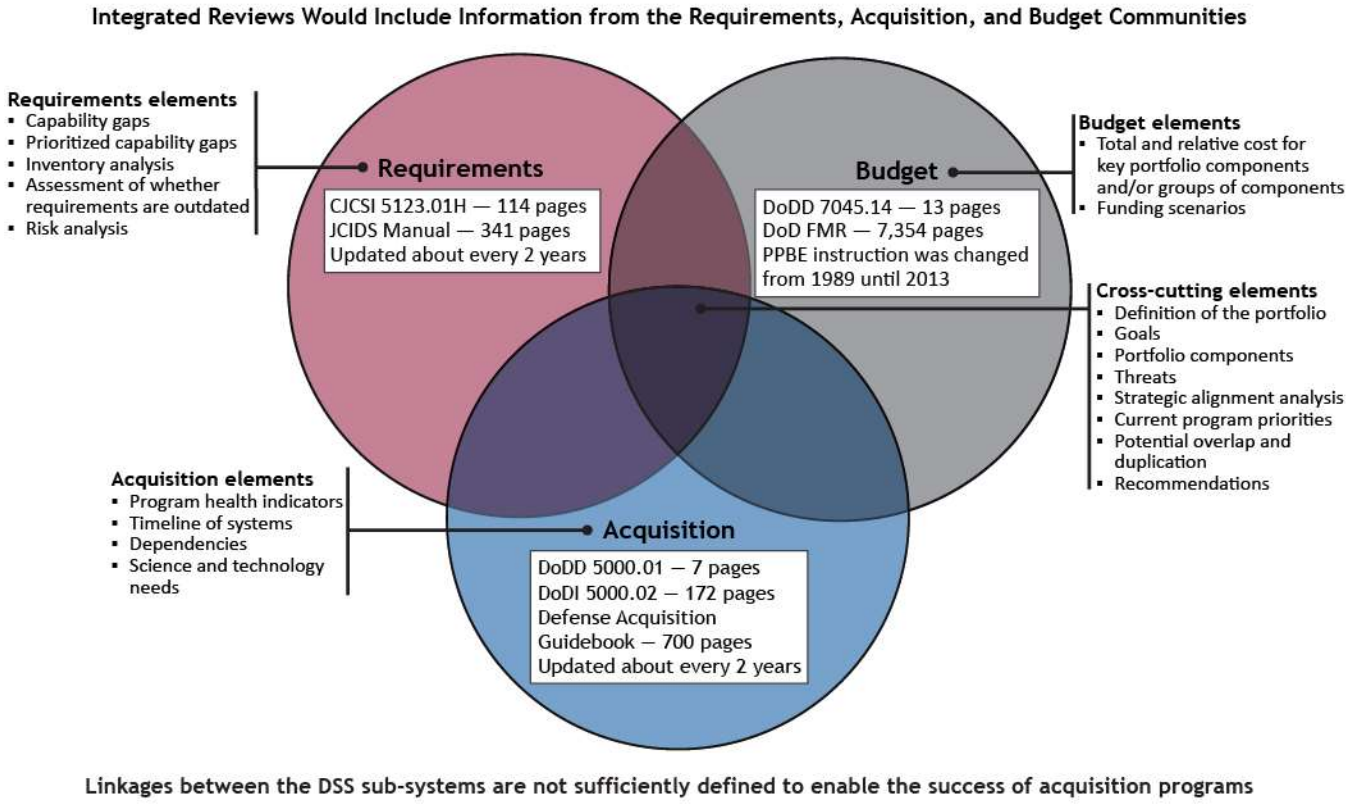
Background

DSS consists of three interrelated systems, with extensive, complex, and centralized decision-making processes driven by different timelines and system owners (see Figure 1-5).[13]

- The requirements system, known at the enterprise level as JCIDS, is administered by the Joint Staff and governed by the Chairman of the JCS Instruction (CJCSI) 5123.01H.
- The resourcing system, known as the PPBE system, is administered by the Director of Cost Assessment and Program Evaluation (D/CAPE) and the DoD Comptroller, and governed by DoDD 7045.14.
- DAS, is administered by acquisition personnel pursuant to guidance promulgated by the USD[A&S], including DoDD 5000.01 and DoDI 5000.02.

[13] Ibid.

Figure 2-5. Description and Guidance for the DSS



Each of these systems is initiated by inputs at the Military Services working level and includes a series of hierarchical reviews at the Military Service and enterprise levels. The senior enterprise-level decision-making body for requirements is the Joint Requirements Oversight Council (JROC), and for resources is the Deputy Secretary's Management Action Group (DMAG). Before the devolution of acquisition authority over the last 2 years, the Defense Acquisition Board (DAB) and the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) played parallel roles in the acquisition decision-making process.

The initiation and progress of an MDAP require successful navigation of all three systems. For example, an MDAP cannot be initiated without the development of an initial capabilities document (ICD) through the requirements process, an MDA through the acquisition process, and funding delivery through the PPBE process. Similarly, a substantial change in requirements for an ongoing program is likely to require separate approvals through the requirements chain, the resourcing chain, and the acquisition chain.

For DSS to be responsive, the individual PM must coordinate and synchronize the activities to deliver warfighter capabilities. Because these processes are stove-piped and have separate decision makers and timelines, they are often out of synch. The result can be substantial delays and even stop-go-stop sequences based on inconsistent decisions that inhibit rapid response to priority needs and timely delivery of material solutions, as evidenced by late capability deliveries, cost overruns, and deteriorating technical dominance.

DoD has tried to coordinate the three processes using integrated product teams and to provide for cross-functional membership on decision-making entities (for example, the designation of the Under Secretary of Defense (AT&L) (USD[AT&L]) as a statutory advisor to JROC and the designation of the Vice Chairman of the JCS (VCJCS) as a DAB member. Because requirements, budget, and acquisition officials exert the greatest control when they stay within their own stovepipes, efforts to coordinate the three processes have been less successful than hoped, and decision-making has remained largely a sequential process.

In another effort to overcome DoD's stove-piped decision-making structure and better coordinate the three acquisition components, DoDD 7045.20 (promulgated in 2008), called for the establishment of capability portfolio managers (CPMs) with military and civilian coleads. The directive expressly provided that CPMs "have no independent decision-making authority, shall not infringe on any existing statutory or regulatory authorities, and shall work within established coordination processes." Because of these limitations, the portfolio approach quickly proved to be unenforceable, and although the directive is still in effect, it has had no discernible effect on the defense acquisition DSS processes.

The utility and power of portfolio management constructs has been used to help inform investment decision makers in the Army's PEO Ground Combat Systems (GCS). PEO GCS, teaming with Sandia National Laboratories, adopted a portfolio management approach to optimally invest in ground combat modernization over a 25- to 35-year timeframe. Through tightly knit, cross-functional stakeholder collaboration and use of decision analysis tools (Capability Portfolio Analysis Tool [CPAT]), the team was able to provide decision makers with key alternatives and scenarios to "help shape decisions to continue modernization of the $10 [billion] Stryker family of vehicles (originally slated for cancellation) and to strategically reallocate over $20 [billion] to existing modernization programs by not pursuing the Ground Combat Vehicle program as originally envisioned."[14] Ultimately, the Army estimated the decisions amounted to more than $5 billion in cost avoidance and 30 percent greater fleet performance per dollar spent.[15]

In the *Volume 2 Report,* the Section 809 Panel concluded that structural change—from program-centric management to a more robust, multitiered portfolio management system at the execution and enterprise level—is needed to reduce the current organization's time and information challenges created by the centralized command structure and provide greater agility in the requirements, resourcing, and acquisition processes. There are four key elements of this proposed shift to a portfolio management framework:

- Replacing the traditional PEO role with that of the PAE, as described earlier in Recommendation 36.
- Establishing Enterprise Capablity Portfolios (ECPs) with civilian and military coleads to conduct cross-cutting analysis and to identify needed capabilities and gaps in such capabilities.

[14] Scott J. Davis et al., "Maximizing the US Army's Future Contribution to Global Security Using the Capability Portfolio Analysis Tool (CPAT)," *Informs Journal on Applied Analytics,* 46, no. 1 (2016): 91-108, https://doi.org/10.1287/inte.2015.0824.
[15] Capability Portfolio Analysis Tool (CPAT) Overview, Stephen Henry, Sandia National Laboratories, presentation to Section 809 Panel, August 9, 2018.

- Improving the defense sustainment enterprise, including developing SPBs to improve sustainment planning and execution.

- Improving the current requirements process governed by JCIDS with a management structure that allows for tradeoffs within the multi-tiered portfolio structure.

Discussion

At the enterprise level, the proposed portfolio management approach has four major features, each of which would represent a substantial improvement in the operation of the defense acquisition DSS:

- The capability portfolio approach would enable DoD, when making capital investment and sustainment decisions, to break out of the current, program-centric and process-focused approach across the DSS and consider instead capabilities and desired outcomes for those key decisions.

- The capability portfolio approach, if resourced with a stable funding source through the Undersecretary of Defense (Research and Engineering) (USD[R&E]), would enable DoD to employ a more agile and coordinated approach to innovation, experimentation, demonstration, and rapid prototyping.

- As requirements, budget, and acquisition decision authority are delegated in the Military Services and Defense Agencies to empowered subordinates, the portfolio approach would bring together DoD's decision processes, establishing a collaborative process that presents a complementary view at the enterprise and execution level.

- The new portfolio system would bring the three systems together by bridging the gap between stove-piped decision-making systems through linked, collaborative processes, enabling DoD to field innovative solutions in a more timely and agile manner, moving the system from a serial decision-making process to a more concurrent process.

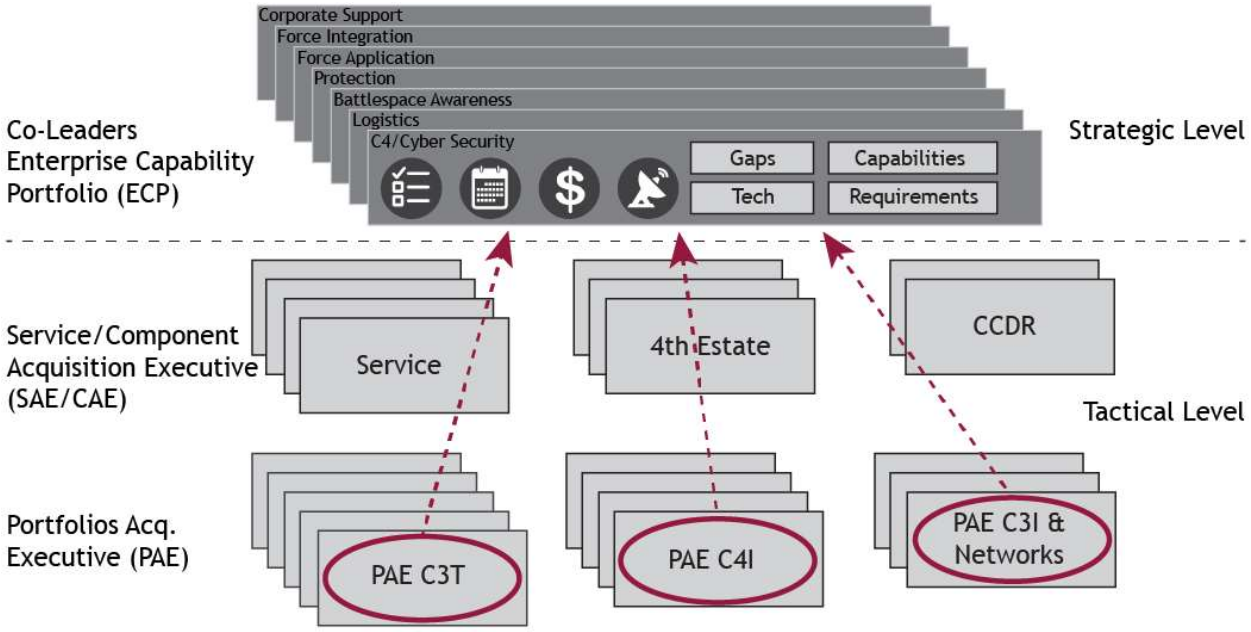
Implementation of capability portfolio management (CPM) at execution and enterprise levels is consistent with the current objective of the Combatant Command (CCMD), Military Service, and Defense Agency leadership: balancing investments in the future against today's requirements. With implementation of CPM, decision makers would consider capital investments differently—not as the latest in a series of weapons systems with enhanced capability but as an investment for which resources might better be applied to weapon systems modernizations or readiness in the same capability area. This portfolio structure would allow leadership to understand existing and planned capabilities across DoD.

Under the envisioned process, Military Service/Defense Agency-level portfolios—managed by newly-empowered PAEs (see Recommendation 36)—would be the primary vehicle for execution of the requirements, resources, and acquisition processes in the Military Services and Defense Agencies. The new PAEs would also provide portfolio information to ECPs, enabling the coleads to assess capabilities and identify critical gaps by using mission engineering and other appropriate analytic tools. This flow of portfolio information would also enable the coleads to present a common capability portfolio picture

to decision makers in the enterprise-level requirements, resources, and acquisition decision-making chains.

The intended flow of capability portfolio information from PAEs to enterprise-level ECP is shown in Figure 2-6, a version of which appeared in the Section 809 Panel's *Volume 2 Report.* The graphic shows that a single enterprise-level capability portfolio is likely to include multiple execution-level portfolios – including portfolios from multiple Military Services, Defense Agencies, and from functional CCMDs with their own acquisition authority.[16]

Figure 2-6. Notional Enterprise Capability Portfolio Management



DoD should unite the defense acquisition DSS views at the DoD level by establishing civilian and military ECP coleads for each ECP. The military chairs of the six FCBs in the requirements process would be concurrently assigned by the VCJCS to serve as military coleads of the ECPs. Civilian coleads would be nominated and approved by the Under Secretary for Defense (Acquisition and Sustainment) (USD[A&S]) and/or Under Secretary for Defense Research and Engineering (USD(R&E)) and selected by the Deputy Secretary of Defense (DSD). The civilian coleads would also lead relevant issues teams for the D/CAPE and the Comptroller to support the enterprise-level resources process. The two coleads would work jointly with the Under Secretary of Defense for Policy (USD(P)) and other key players to support the enterprise-level strategic planning process.

The ECPs would operate much as Military Services, Defense Agencies, and OSD Integrated Product Teams (IPTs). Each of the ECPs would have committed representatives from cognizant Military Service, Defense Agency, and CCMD offices. ECP coleads would propose a work plan to the DMAG for review and approval. With resources assigned (government and contractor), they would execute the

[16] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3,* 42 (2018).

plan and present recommendations to the DMAG. ECPs would also respond as tasked by D/CAPE to lead specific issue teams.

Military Service-level PAEs—with delegated responsibility and authority for capability portfolio requirements, budgets, and acquisition—would bring together the three elements of the defense acquisition DSS in a single office, enabling rapid and comprehensive commitments. The PAEs would not only be responsible for acquisition execution, they would also have authority over requirements and budgets, feeding the Military Service- and enterprise-level requirements and programming processes. The new portfolio system would bring the three systems together through linked, collaborative processes, enabling DoD to field innovative solutions in a more timely and agile manner.

Existing Decision-Making Processes

Implementation of a new multilayered portfolio process would help address deficiencies in the existing DSS that cause DoD to do the following:

- Focus on large, traditional programs instead of smaller, more innovative programs.
- Provide inadequate attention to cross-functional gap analysis and nontraditional solutions.
- Lack the agility needed to adjust to new technologies and new threats.
- Focus too much on process and paperwork, rather than major strategy and risk decisions.

The NDS calls for DSS to "prioritize speed of delivery, continuous adaptation, and frequent modular upgrades." As the NDS acknowledges, however, current processes are "over-optimized for exceptional performance at the expense of providing timely decisions, policies, and capabilities to the warfighter."[17]

Because DSS decision-making processes are so burdensome, program advocates tend to focus their efforts on a few megaprograms that incorporate all available technologies in a single *big bang* acquisition. Recent examples include the Joint Strike Fighter, designed to meet the tactical aviation needs of three Military Services, and the acceleration of multiple advanced technologies onto the lead ship of a new class of aircraft carriers.

These megaprograms, which risk squeezing out available funding that could be used for rapid innovation and risk taking, too often fail to deliver as promised. When DoD tries to develop too many advanced capabilities within a single MDAP, delays in a single critical technology can slow down the entire program and cost billions of dollars. The resulting cost overruns can present funding difficulties for smaller, more innovative programs.

To overcome this problem, DoD needs the ability to rapidly develop less ambitious, more innovative programs. A more diverse portfolio—including smaller, more flexible investments—would enable DoD to adapt more quickly to emerging technology and respond more effectively to changes in the threat environment.

[17] DoD, *A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge,* 10, accessed December 30, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

Providing multiple alternative vehicles for maturing technology should also reduce the temptation for larger programs to try to incorporate all available technologies in a single increment and make larger systems more agile and flexible. Some of the smaller investments may fail, but unlike the megaprogram failures dominating the defense budget today, such failures would be an acceptable cost of progress.

Cross-Functional Gap Analysis and Nontraditional Solutions

The NDS calls for increased use of nontraditional suppliers, new entrants, and small-scale vendors that can provide cutting-edge technologies. This approach, the NDS states, will "allow the Department to more quickly respond to changes in the security environment and make it harder for competitors to offset our systems."[18] The current acquisition system relies on the traditional command organizational structure to develop new programs from the bottom up. Regardless of the problem, a tank and automotive command is likely to see a new land system as the appropriate solution, while a sea systems command is likely to identify a new surface combatant as the appropriate solution. As a result, the acquisition system tends to focus its energy on developing the *next generation* of existing systems, rather than identifying innovative new approaches. Gap analyses and analyses of alternatives are too often used to justify traditional programs, rather than seriously consider new technologies and new solutions.

To overcome this problem, DoD needs an approach that considers alternative approaches before focusing on a solution. A cross-cutting analysis of gaps and overlaps should take place *before*, not after, DoD settles on a particular material solution to a military problem. A portfolio-based acquisition approach should enable such cross-cutting analysis.

One possible approach would be to apply mission engineering. Mission engineering would provide leadership with tools to facilitate a view of current capabilities and future requirements, thus equipping decision makers with the information necessary to better prioritize limited resources. Successful mission engineering combines the structure of systems engineering with the tactical insights of operational planning. Mission engineering maps system capabilities to mission needs at the capability portfolio level.[19] Mission engineering emphasizes data driven, capability-based assessments to produce integrated warfighting capabilities that can be translated into specific programmatic guidance for strategic programs and can visually identify gaps.

The mission engineering analysis results are captured in effects/kill chains. These effects/kill chains identify operational needs based on the planned way to fight through mission threads captured in the CCMDs' Operational Plans (OPLANs) and Contingency Plans (CONPLANs). The effects/kill chains may then be used to illuminate capability advantages and disadvantages of the alternatives; consider joint operational plans; examine sufficient feasible alternatives; characterize key assumptions, variables, and sensitivities; and assess technology risk and maturity. For example, the system's ability to achieve the desired capability is assessed in terms of red, yellow, or green. Red would mean some significant degradation to mission; green would indicate the desired capability is being achieved. The analysis

[18] Ibid, 11.
[19] "Mission Engineering Integration and Interoperability (I&I)," James D. Moreland, Naval Sea Systems Command, accessed August 2, 2018, https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Dahlgren/Dahlgren-Resources/Leading-Edge/I-I-Leading-Edge/Moreland/.

provides decision makers with a view of the system capabilities and how investment in resolving issues affects the overall mission and capability delivery.

Existing Decision-Making Processes Lack Sufficient Agility

The NDS calls for a "rapid, iterative approach to capability development" with rapidly evolving platform electronics and software instead of "static configurations that last more than a decade," to reduce costs, technological obsolescence, and acquisition risk.[20] The current, centralized DSS, with its three separate decision stovepipes, hinders speed and innovation. Not only are small, innovative programs disfavored, but large programs designed to meet future threats rely on locked-in baselines that limit their ability to respond to new threats and new technology developments.

Private-sector entities and some federal government elements (including the intelligence community) bring together requirements, resourcing, and acquisition decision-making processes to enable decision makers to promulgate needed changes at the speed of relevance. The DSS process, which separates these three processes, makes it extremely difficult to promulgate significant modifications after a program is underway. As a result, DoD adheres to existing requirements long after they clearly cannot be met at reasonable expense and defers critical and available new technologies to future upgrade programs that lie in the indefinite (and unfunded) future. To overcome this problem, DoD needs to create trade space in which reasonable decisions to trade cost, schedule, and performance against capability could be made in real time.

Existing Decision-Making Processes Focus Too Much on Process and Paperwork

The NDS notes that DoD's management structure and processes "are not written in stone," but are "a means to an end"—empowering warfighters with the knowledge, equipment, and support systems to fight and win.[21]

The current DoD organizational structure includes many separate stovepipes—each with its own bureaucracy and staff—that are empowered to say *no*, rather than work toward solutions to warfighter problems. The result is a system in which senior decision makers and their supporting staffs devote too much attention to process, procedure, and paperwork, rather than focusing on the major strategy and risk decisions that should be made at the enterprise level. Too often, innovative solutions are bogged down by a micromanaged process in which, as GAO found in a 2015 review, it takes an average of more than 2 years and 5,600 staff days to complete the 49 information requirements needed to support a single acquisition milestone decision.[22]

To overcome this problem, DoD needs a process by which senior decision makers make major strategy and risk decisions but leave the day-to-day management of individual portfolios and programs to

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[20] DoD, *A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge,* 11, accessed December 30, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.
[21] Ibid, 10.
[22] GAO, *Acquisition Reform: DOD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies, GAO-15-19,* February 2015, accessed December 30, 2018, https://www.gao.gov/assets/670/668629.pdf.

hands-on managers. A multitiered portfolio approach should address this problem by assigning management responsibility to strong, new portfolio managers.

Conclusions

DoD needs a total lifecycle, multitiered, capability portfolio framework for capital investments that continuously seeks to integrate the separate requirements, resourcing, and acquisition decision stovepipes of the current DSS program-centric framework. DoD needs that framework for resource allocation at all management levels to compete in the 21st century where innovation, flexibility, and response time are critical. The multitiered portfolio framework under which authority is delegated can more effectively prioritize innovation and experimentation, consider nontraditional solutions, conduct more effective gap analysis, respond to new threats and rapidly integrate technologies in a more agile manner, and reduce the burdens of bureaucracy and micromanagement. Framework implementation would be facilitated by doing the following:

- Expand or adopt successful portfolio management models developed in DoD—such as FCB portfolios—and the private sector to the special imperatives and relationships in DoD organization. Private-sector portfolio management principles have been adopted in some parts of the government, as exemplified most recently by Office of Management and Budget (OMB) Memorandum M–18–19, and over the longer term by the portfolio standards incorporated into OMB Circular A–11. With some adjustment to accommodate requirements of the appropriations process and the Military Service-based DoD organizational structure, these standards might be incorporated into DoD's new capital investment system as well.

- Empower PAEs in the Military Services and Defense Agencies with delegated authority to collaborate with peers in requirements and resourcing within trade space provided and to present a common portfolio and program picture to Military Service-level and OSD/JCS leadership. This framework would minimize time to commitment, resulting in a more agile system that has the flexibility to respond to changing threats and emerging technologies.

- Designate senior DoD officials (military and civilian) as ECP coleads and charge them with integrating, synchronizing, and coordinating capability portfolio content to address capital investment alignment to strategic priorities and capability demand. ECP coleads would have no independent decision-making authority but would be responsible for providing cross-cutting analysis of capability portfolios and presenting a common capability portfolio picture to enterprise-level decision makers. ECPs will be aligned with the already-established FCBs initially; however, they may evolve together over time to provide as broad and segmented view of enterprise capabilities as possible to inform requirements, resourcing, and acquisition/sustainment decisions.[23]

[23] There are currently six FCBs, with responsibility for C4/Cyber, Battlespace Awareness, Logistics, Force Integration, Protection, and Force Application, respectively. An additional Joint Capabilities Area (JCA), for Corporate Management and Support, does not have an FCB, and is included instead in a separate portfolio process led by the Chief Management Officer.

  - Require ECP to develop strategic plans and roadmaps to provide a vision for the evolution of missions within their capability portfolios over time, help drive S&T investment and provide metrics for measuring capability portfolio performance.
  - Require a 20 year strategic plan which leverage the operational expertise of the CCMDs and the Senior Warfighter Forums—as well as scenario-based war games, mission engineering, and other strategic analysis that focus on desired outcomes rather than projected systems—to identify capability and resource mismatches, including gaps, shortfalls, and redundancies
  - Require adequate resourcing of ECPs to produce these plans, as well as other portfolio-level documents.
  - Require aligned execution portfolios and ECPs to share information continuously because both assess current and needed capabilities, including cross-cutting capabilities, for presentation with recommendations to the DoD decision makers at all levels.
  - The ECP military coleads will serve concurrently as FCB chairs. The civilian coleads can lead issue teams on behalf of the D/CAPE and the Comptroller. The two coleads would also work together to identify cross-cutting acquisition issues that should be raised through the USD(A&S) and the USD(R&E) and VCJCS to the DMAG and JROC.

- Approve a portion of the defensewide funding line for rapid development/prototyping (including the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA) controlled by the USD(R&E), a portion of which will be allocated to the ECPs to provide seed money for key Execution and Enterprise portfolio priorities in accordance with strategic plans. Such a dedicated fund for emergent (within budget cycle) innovative and agile acquisition initiatives would provide a lever with which ECPs could address unfunded gaps or opportunities in Military Service execution strategic plans in support of programs.

Implementation

Legislative Branch

Note: Legislative implementation here are identified as subrecommendations to allow for better reference to them in the draft legislation text in the Implementation Details section that follows.

- Subrec. A: Direct DoD to transition the current DAS to a total lifecycle, multitiered (execution and enterprise), capability portfolio-centric framework that integrates requirements, budget, and acquisition/sustainment for capital investments/resource allocation. Incorporate above recommendations in a revision to DoDD 5000.01, The Defense Acquisition System Directive. A draft revised DoDD 5000.01 is attached in the Implementation Details for this section.

- Subrec. B: Direct DoD to establish ECPs to integrate, synchronize, and coordinate capability portfolio content to address capital investment alignment to strategic priorities and capability demand. ECP should be led by senior civilian and military personnel of SES/flag/general rank, pointed by DSD and VCJCS respectively. ECP coleads would have no independent decision-making authority but would be responsible for providing cross-cutting analysis of capability portfolios and presenting a common capability portfolio picture to enterprise-level decision makers.

- Subrec. C: Direct DoD to establish processes for ECPs to use a portion of defensewide funding for rapid development/prototyping funding controlled by the USD(R&E) to provide seed money for key portfolio priorities in accordance with strategic plans.

- Subrec. D: Provide increased flexibility in the appropriations and reprogramming processes, including the enhanced reprogramming authority discussed in Recommendations 46-48 of this report, to ensure that PAEs can provide timely responses to new threats, emerging technologies, and developments in portfolio performance.

Executive Branch

- Revise DoDD 5000.01, Defense Acquisition System, or cancel it and initiate a new directive that will be The Defense Capability Acquisition and Sustainment Framework that will:

  - Maintain and/or strengthen principles and policies in the existing DoDD 5000.01 while establishing a new model, Defense Capability Acquisition and Sustainment Framework (DCASF). The DCASF will be a through lifecycle, multitiered, capability portfolio acquisition and sustainment framework for capital investments that continuously seeks to integrate requirements, budget, acquisition/sustainment views of programs and services for more informed and collaborative decisions. Rescind DoDD 7045.20, Capability Portfolio Management, and include in revised DoDD 5000.01 or new Directive for Defense Capability Acquisition and Sustainment Framework and include its provisions for full-time civilian and military coleads to provide cross-cutting analysis and present a common capability portfolio picture to enterprise-level decision makers.
  - Provide for the DSD to appoint civilian ECP coleads who are experienced members of Senior Executive Service from a slate provided by USD(R&E) and USD(A&S). Nominees may come from any DoD acquisition activity or organization.
  - Provide for the military ECP colead to be a general or flag officer appointed by the VCJCS in consultation with Military Services and CCMDs. ECP military coleads will serve concurrently as chair of the relevant FCB in the JCIDS process.

- Require that ECPs have visibility on the full range of weapon systems and any evolving cross-cutting mission areas.

  - Note that the ECPs would not include business systems, because DoD is already developing separate business system portfolios under the Chief Management Officer's leadership.

- Require DSD and VCJCS to develop a DoD implementing directive for the operation of the ECPs that includes but are not limited to the following:

  - ECP coleads are jointly responsible for raising cross-cutting issues in the enterprise requirements, programming/budgeting, and acquisition review processes.
  - ECP coleads are responsible for identifying cross-cutting requirements, programming/budgeting, and acquisition/sustainment issues and raising them with the Military Services (and appropriate Defense Agencies).
  - ECP civilian colead leading issues teams through the 3-Star and DMAG review processes.

- ECP coleads are responsible for identifying cross-cutting acquisition issues, raising them to the Military Services (and appropriate Defense Agencies), and if necessary, working them through USD(A&S) and/or USD(R&E) to the DMAG.
- ECP coleads develop strategic plans and roadmaps to show a vision for the development of capability portfolios over time and to help drive S&T and rapid capability investments.
- ECP coleads establish positive relationships with PAEs, to include exchange of information, data, decisions, and planning, working toward a common view of every particular capability set.
- Establish a defensewide funding line for rapid development/prototyping funding (including the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA) under control of the USD(R&E), with a portion available to ECP coleads to provide funding for use by Military Service/Defense Agency execution portfolio to address priority opportunities when Military Service/Defense Agency funding is unavailable.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 2.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 38: Implement best practices for portfolio management.

Problem

In *both Volume 2* and *Volume 3* of the *Final Report*, the Section 809 Panel recommends DoD transition from program-centric to capability portfolio-centric acquisition management. Although implementation of a capability portfolio management framework is a best practice in itself, recognizing that the transition to portfolio management will not come easily nor without risk the best practices described below are put forth to help advance the transition and improve outcomes. Recommendations 36 and 37 provide detailed rationale for portfolio management and outline implementation actions to transition to a capability portfolio management framework for acquisition and sustainment of weapon systems. This recommendation identifies several specific approaches (creating critical questions, leveraging data, using analytical strategy modeling, and empowering the workforce) that serve as portfolio management best practices and would improve the likelihood of a positive transition to a multitiered portfolio framework that enables integration of requirements, budget, and acquisition/sustainment with decentralized decision authority.

The changes to acquisition and sustainment in Recommendations 36 and 37 are not totally unfamiliar to some aspects of DoD, but the key characteristics of portfolio management addressed within these recommendations have never been implemented as a comprehensive framework across DoD. The challenge is abandoning the deeply ingrained, stove-piped, program-based decision processes and procedures to adopt a new paradigm, while continuing to accomplish weapon systems development, testing, fielding, and sustainment. DoD, including OSD, JCS, Military Services and Defense Agencies have, over the decades, organized various collections of like capabilities into portfolios. An

infrastructure for capability portfolio management exists in the Military Services and Defense Agencies with PEOs who already supervise, if not manage, capability portfolios.

In 2008 DoDD 7045.20 was signed directing DoD "to use capability portfolio management to advise the Deputy Secretary of Defense and the Heads of the DoD Components on how to optimize capability investments across the defense enterprise (both materiel and non-materiel) and minimize risk in meeting the Department's capability needs in support of strategy." Recommended implementation approaches, including enhancing PEO/PAE authority, establishing ECPs, rescinding both 5000.01 and DoDD 7045.20, and reissuing DoDD 5000.01 as the Defense Capabilities Acquisition and Sustainment Framework (DCASF), require commitment and leadership. Those activities, however, offer critical improvements to timeliness, flexibility, affordability, and technological innovation for weapon systems investments. It addresses and removes major challenges of the decades-old processes and procedures by focusing on managing by portfolio instead of program; by integrating requirements, budget, and acquisition/sustainment; and by delegating authority.

Background

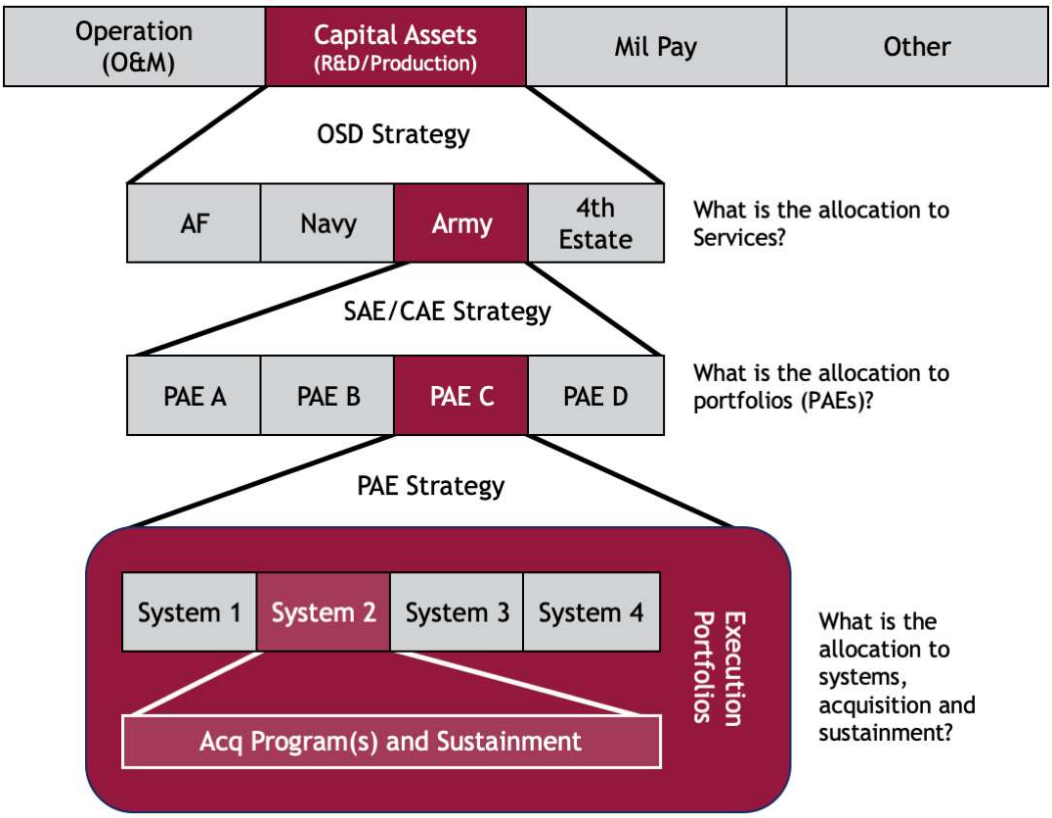
Currently, the USD(P) coordinates two strategic plans that are developed within the planning phase of PPBE—the NSS and the NDS.[24] Subsequently, D/CAPE publishes fiscal guidance and DoD reprogramming guidance in coordination with the DoD Comptroller. More than 10 years ago, DoDD 7045.20 called for CPM strategies and alignment of PEs (the structure for funding) to these portfolios; however, no substantial changes to the program approach have materialized.

The current DSS structure—comprising JCIDS, PPBE, and DAS—is not well suited for portfolio-based management because integration across DSS for capital assets occurs through formal, designated acquisition programs. These programs are either MDAPs or nonmajor programs (non-MDAPS). DoD groups many, but not all, of these programs into portfolios managed by PEOs. Although PEOs were created in the 1990s to align programs into portfolios, the DSS process maintained a program-centric view. PEOs were not assigned any additional duties in statute or DoDD 5000.01 to accomplish portfolio management. Instead, they are midlevel managers between the PM and Component or OSD MDA. Often, though not always, non-MDAP programs have MDA delegated to PEOs by SAEs.

During the past 20 years, portfolio management has become widely accepted by industry as a best practice and has proven to offer many benefits. Organizations tend to perform best with centralized strategy and decentralized execution. The evolving industry methodology for managing capital assets in portfolios has shown increased efficiency and effectiveness "as portfolio management is the bridge between strategy and execution."[25] The Section 809 Panel's recommendations regarding migration to a portfolio-based acquisition system move defense acquisition in this direction by establishing clear portfolio allocations from OSD to Military Services, then on to PAEs and PMs (see Figure 2-7). This decentralized structure both improves innovation and requires more coordination.

[24] The Planning, Programming, Budgeting, and Execution (PPBE) Process, DoDD 7045.14 (2017).
[25] Charles R. Mahon and John D. Driessnack, *Winning in the 21st Century: An Acquisition Point Paper to the Section 809 Panel,* September 2017, accessed June 7, 2018, https://www.pmi.org/-/media/pmi/documents/public/pdf/white-papers/command-negation.pdf.

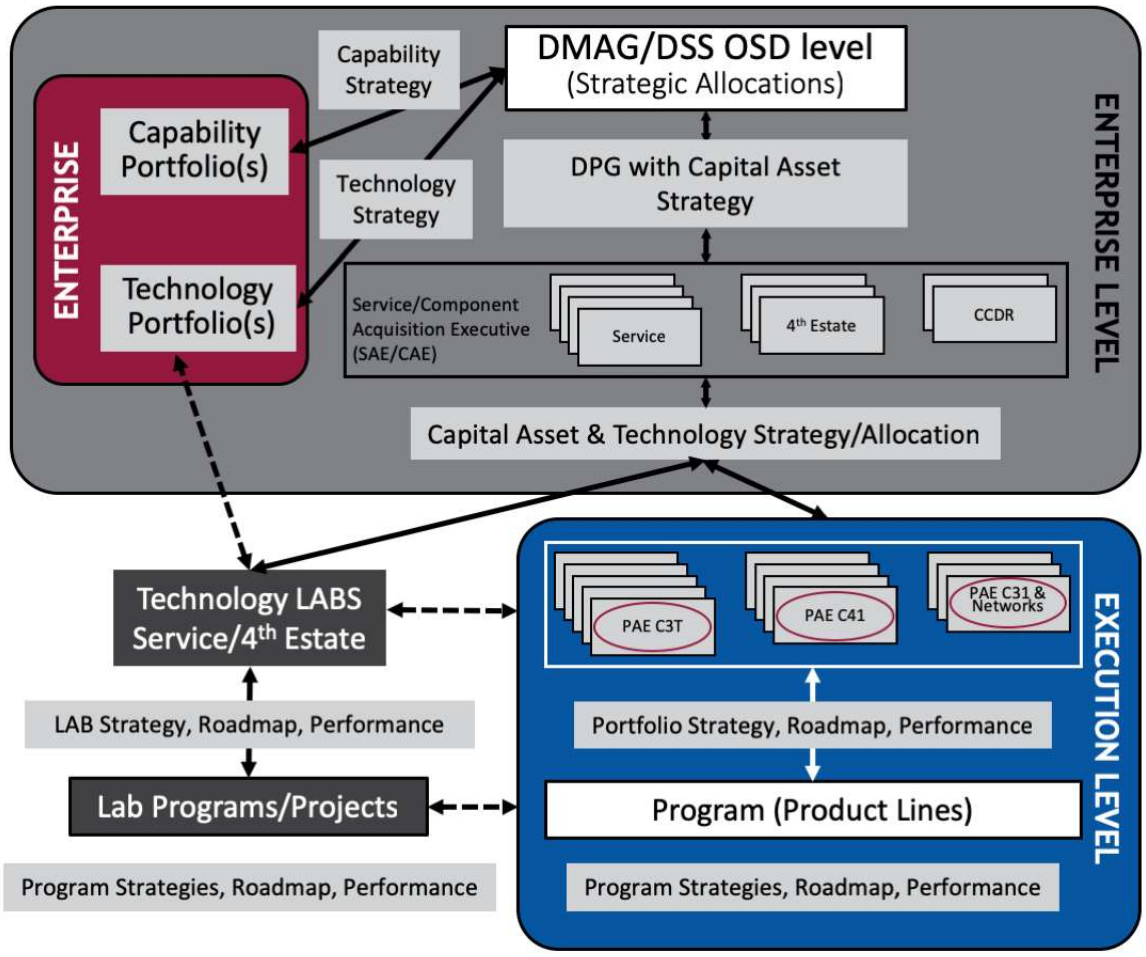
Figure 2-7. Portfolio Allocation



Industry guidance on project, program, and portfolio management has evolved since the 1960s, reflected in guidance published by the American National Standards Institute and the International Organization for Standardization.[26] Many countries, including the United States, have adopted these evolving industry standards. OMB Circular A-11 and A-119 both encourage agencies to embrace industry standards.[27] To move to a portfolio management approach in the management of capital asset projects and programs, DoD should transition to a portfolio governance model that aligns strategy, risk tolerance, resource capacity, and evaluation results. Doing so would add an integrated, tiered capital asset view (OSD to Military Service to execution portfolio to program) across DSS with enterprise-level capability views cross-cutting the Military Service-oriented view. The enterprise and execution views form the multitiered portfolio management system (see Figure 2-8).

[26] "The Standard for Portfolio Management, ANSI/PMI 08-003-2017," and "Guidance on Portfolio Management, ISO 21504:2015," International Organization for Standardization, accessed November 15, 2018, https://www.iso.org/standard/61518.html.
[27] Charles R. Mahon and John D. Driessnack, *Winning in the 21st Century: An Acquisition Point Paper to the Section 809 Panel,* September 2017, accessed June 7, 2018, https://www.pmi.org/-/media/pmi/documents/public/pdf/white-papers/command-negation.pdf.

Figure 2-8. Multitiered Portfolio Management System



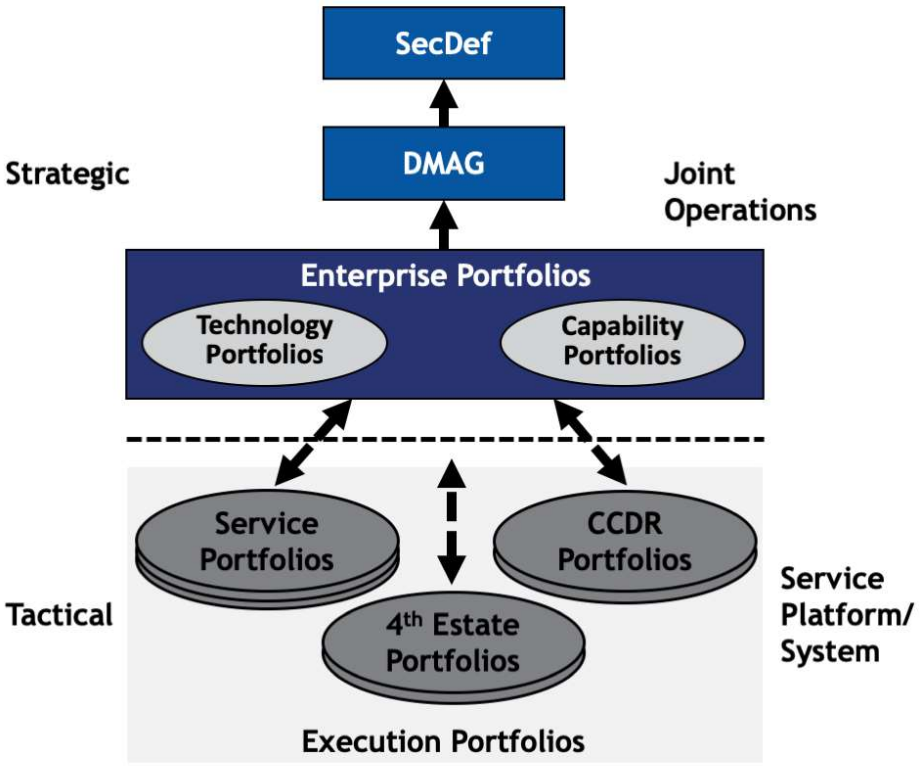
The ECP colead would provide senior decision makers views to resource allocation that would align objectives, capacity, and risk tolerance with execution portfolios managed by empowered and appropriately resourced PAEs. The PAEs could then optimize within their allocations down to PMs who have a lifecycle baseline (for both acquisition and sustainment).

Discussion

Taking a Portfolio View of Capital Asset Management

In its *Volume 2 Report*, the Section 809 Panel advocated for shifting from a program-centric DAS to one cemented around portfolio capabilities, with corresponding tools and resources that will support more effective program management. CPM would enable analysis and integration of cross-cutting data and create an enterprise view that would support better-informed decision making. This approach would provide new perspectives at both the strategic and tactical levels. The strategic enterprise level could view portfolios based on technology or capability. At the tactical execution level, portfolios would be viewed based on their organization (see Figure 2-9). In this model, the capability and execution views are tiered from the OSD to the Military Services and to the PAE. To maximize the ability of these new perspectives to enhance decision making in a portfolio-centric system, there are several best practices that should be considered.

Figure 2-9. Service Execution Portfolio and Enterprise Portfolio Information Flow



Moving from program-centric to portfolio-centric acquisition requires changing the primary view of how capital assets are managed. Portfolio management requires active management of the collection of programs/projects within the portfolio.[28] Portfolio management does not require a change in the overall federal approach for capital budgeting, but it does incorporate aggregated product lines or product mixes that facilities portfolio capability value assessments and resource allocation based on a broader capability view.

Industry portfolio management standards require portfolio-level strategic plans and roadmaps that enable strategic management. Included in these plans is value management, for which optimization is achieved by balancing benefits, risks, and resources. Additionally, a holistic, systems approach is needed given most portfolios are complex, adaptive systems.

Portfolio and program leaders should be transparent with the challenges (constraints, assumptions, issues, risks, and opportunities) within the portfolio of programs. The allocation to a portfolio and within a portfolio should be informed by the challenges. Points to consider include the following: W*hat is the challenge profile within the portfolio and the individual programs? Is the portfolio resilient enough to handle realized risks and lost opportunities that are historical within Defense Systems?* Armed with empowerment and flexibility in how resources are allocated, the PAE would craft a portfolio allocation that is robust enough to handle—at least in the near-term execution and budget years—cost, schedule,

[28] Ibid.

and performance variations that are inherent in defense systems. The portfolio team, with improved stability in resource allocations and mission capability, should be able to anticipate the level of variation in the near term given credible data and clarity on the challenges.

Creating Critical Questions on Portfolio Value

A single approach or model for portfolio management would not be successful, as the 50-plus PEOs today represent a broad range of capital assets with various definitions of what would constitute portfolio capability value. DoD, through the tiered enterprise-execution portfolio concepts, should tailor capability value modeling to inform decisions relative to resource allocations from OSD to Components to portfolios to programs. The models can assist with optimizing portfolio effectiveness of capabilities while balancing short-term needs with long-term capabilities, especially for weapon and combat-oriented information systems and product lines. Each portfolio needs to develop its own set of *critical questions on portfolio value* that drive not a business case, but a missions/capability value case that informs strategy.

OMB Circular A-11, Preparation, Submission, and Execution of the Budget, outlines direction for capital investment, budgeting, and management. Additional guidance is captured in the Capital Programming Guide (CPG) supplement to Circular A-11, which asks agencies to answer three *critical questions:*

- Does the investment in a major capital asset support core/priority mission functions that need to be performed by the federal government?
- Does the investment need to be undertaken by the requesting agency because no alternative private-sector or government source can better support the function?
- Does the investment support work processes that have been simplified or otherwise redesigned to reduce cost, improve effectiveness, and make maximum use of commercial off-the-shelf (COTS) technology?[29]

The CPG concept of having critical questions should be tailored to DoD. The recommended DoD enterprise- and execution-tiered approach necessitates tailored questions for each level of resource allocation. CPG, Section I.5.8, Portfolio Management, notes,

> *Capital assets should be compared against one another to create a prioritized portfolio of all major capital assets. … While the benefits and costs of capital asset portfolios should be quantified in monetary terms when feasible, agencies also measure return on the basis of outputs and outcomes. … Agencies should choose a portfolio of capital investment that maximize return to the taxpayer and the Government – at an acceptable level of risk.*

[29] Office of Management and Budget, *Capital Programming Guide, v3.0, Supplement to OMB Circular A-11: Planning, Budgeting and Acquisition of Capital Assets*, 2017, accessed November 9, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/a11_current_year/a11_2017/capital_programming_guide.pdf.

> *Portfolio management theory and standards are readily available from commercial sources and academic literature. The theory is not repeated here. Agencies are encouraged to focus on the practical application portfolio management theory. Most likely, the practical application will involve the tailoring of the principles to an agency's unique circumstances.*
>
> *All of the items in a portfolio must support strategic plans, goals, objectives and priorities. The strategy and goals drive the selection and prioritization. The selection process should eliminate unnecessary and poorly planned projects. In addition, the risks associated with each item should be evaluated and responses should be developed. The risk management process should reduce threats to the agency objectives. This should result in a portfolio that is balanced so that the mix of items maximizes the agency's ability to achieve strategic goals.* [30]

The U.S. Army PEO for Ground Combat Systems, which manages the portfolio of tanks and other ground-based fighting vehicles, provides an example of this type of portfolio strategic planning linked to prioritization across product lines. The PEO, having the challenge of budget reductions, developed a tailored portfolio-level model (CPAT), to determine the optimal investment strategy for ground combat modernization over the next 25–35 years.[31] The model demonstrates the type of portfolio-level analytics that can be used. The model has been subsequently used in more than 40 studies applying operations research methods to optimally prioritize investments across acquisition and sustainment challenges.

This type of capability value modeling—which is not just focused on efficiency, but also effectiveness given the constraints and assumptions for the portfolio—is becoming the norm within portfolio management best practices. A recent paper from Massachusetts Institute of Technology, *Program and Portfolio Affordability Tradeoffs Under Uncertainty Using Epoch-Era Analysis,* "introduces a method to conduct portfolio design for affordability by leveraging Epoch-Era Analysis [EEA] with aspects of Modern Portfolio Theory."[32] EEA "enables the conceptual design of systems that are resilient to potential change in context and needs (exogenous uncertainties) throughout the system lifecycle."[33]

Using Analytical Modeling of Strategy

An approach for addressing missions/capability is applying mission engineering approaches to map system capabilities to mission needs at the capability portfolio level. Mission engineering—which combines the structure of systems engineering with the tactical insights of operational planning—can provide a basis for assessing portfolio contributions to the delivery of capabilities against assigned kill chains and threads, understanding the effects of investment decisions on operational priorities, assessing the fighting capability of existing and planned weapon systems, identifying capability gaps in light of existing and planned acquisitions, and providing a common mission picture to senior leaders.

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[30] Ibid.
[31] Scott J. Davis et al., "Maximizing the US Army's Future Contribution to Global Security Using the Capability Portfolio Analysis Tool (CPAT)," *Informs Journal on Applied Analytics,* 46, no. 1 (2016): 91-108, https://doi.org/10.1287/inte.2015.0824.
[32] Parker D. Vasik, Adam M. Ross, and Donna H. Rhodes, "Program and Portfolio Affordability Tradeoffs Under Uncertainty Using Epoch-Era Analysis," *INCOSE International Symposium,* September 13, 2016.
[33] Ibid.

Mission engineering maps system capabilities to mission needs at the capability portfolio level.[34] Mission engineering emphasizes data-driven, capability-based assessments to produce integrated warfighting capabilities that can be translated into specific programmatic guidance for programs and can visually identify gaps.

Leveraging Data

The transition to portfolio management will allow program-level data to be leveraged and leaner as programs are managed within a portfolio structure. When appropriate, PAEs and functional leaders can reduce program-level instruction (DoDI 5000.02) and statutory documentation requirements through the use of portfolio approaches. Portfolio-level documentation should not be additive, but instead enable program-level documentation and reporting to be consolidated as appropriate. A holistic system approach to data and documentation should evolve with the goal of improved transparency. As portfolio management matures, the Select Acquisition Report (SAR) and Defense Acquisition Executive Summary (DAES) should transition to portfolio level.

Empowering Workforce

Prior to the Packard Commission, material and/or systems commands, which could best be described at the time as functional matrix organizations, held responsibility for acquisition and sustainment. One of the major findings of the Packard Commission was that individuals in the functional organization (today, often referred to as competencies) had decision authority on matters that affected a program's cost, performance, and/or schedule. Implementation of the Packard Commission's recommendations was an attempt to remedy this situation by better unifying programmatic decisional authority. The Packard Commission, and the advent of integrated program teams in the 1990s, shifted the balance of power in the direction of PMs and PEOs. In the intervening years, the influence PEOs and PMs has declined, as evidenced by the current situation in which process too often eclipses the mission of product development and delivery. Recommendations 36 and 37 in this report work to restore line management authority and rebalance the emphasis of product over process, in particular by designating the SAE/PAE as the top of the chain of command responsible for managing the system from initiation to disposal.

A prime reason processes have overpowered products has been the resistance of the functional competencies to colocate their personnel with program teams, especially within the contracting and comptroller competencies. To the maximum extent practicable, functional competency personnel should be colocated with PMs and PAEs. Functional competency personnel should support PMs and PAEs by doing the following:

- Providing competent, qualified personnel.
- Operating and sustaining efficient and effective infrastructure.
- Establishing consistent policies and technical guidelines.

[34] "Mission Engineering Integration and Interoperability (I&I)," James D. Moreland, Naval Sea Systems Command, accessed August 2, 2018, https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Dahlgren/Dahlgren-Resources/Leading-Edge/I-I-Leading-Edge/Moreland/.

- Streamlining processes.
- Incorporating advanced technology and operating and support lessons into design.

Colocating competency personnel should include competencies charged with maintaining clearance certification (e.g., flight clearance and submarine safe) which must function as a check-and-balance to ensure safety and good functional practice. The purposeful tension between the PM's and PAE's directive authority, functional competencies, technical guidelines, and consistent policy charters should not impede progress. That tension is intended to further programmatic efficiency while maintaining standards and safety. When conflicts between the entities cannot be resolved, they must be expeditiously elevated to senior leadership for adjudication.

Although colocation would be quite helpful, it is not the only approach to help facilitate portfolio management. To actively manage portfolio challenges, PAEs need a more empowered workforce than most current PEOs have. For PAEs to be agile, the workforce also needs to be agile within the organization. Thus, the individuals assigned to the PAE execution organization by the enterprise, whether they are program managers, contracting officers, financial managers, system engineers, or other functional members, should be empowered by their system command or parent organization when assigned to the PAE organization. Individuals should be assigned, to the maximum extent practical, as full-time employees to PAE organizations, allowing PAEs and their senior acquisition functional matrix leaders the necessary agility in balancing resource needs. The workforce members assigned full time to the PAE organization should be rated within the PAE organization by their respective senor matrix leaders, who are also assigned full time. Senior matrix leaders should be rated by the PAE or deputy PAE as appropriate. Missile Defense Agency (MDA) provides a current example. In addition to overseeing the programs within the MDA portfolio, the MDA director, unlike most PEOs, has a more active management role in the portfolio, with increased contracting, financial systems engineering, and other functional authorities. Although rated by the PAE, common sense checks and balances are required for certain functional experts with specific decision-making authority of their own, such as warranted contracting officers. Such functional experts should have a concurrent rater within their specific functional area to support their independent decision-making role.

Conclusion

Moving defense acquisition from a highly centralized, program-centric model with stovepipe-driven requirements, budget, and acquisition processes to a collaborative, decentralized, portfolio-centric framework entails nothing more than implementing management best practices. The move would yield timely, flexible, agile, cost-effective, and technologically innovative weapon systems acquisition and sustainment. Portfolio management is no longer in its infancy; there are standards and best practices that DoD can use while implementing the recommended multitiered capability portfolio framework. DoD could start with using critical questions to drive a long-term portfolio investment strategy that supports meeting capability needs, implementing analytical modeling of strategy to apply mission engineering approaches to map system capabilities to mission needs at the capability portfolio level, leveraging data that allow the MDAs (DAE, SAE, PAE, PM) and functional leaders to reduce program level instruction (DoDI 5000.02) and statutory documentation requirements, and empowering the workforce to make decisions.

Creating Critical Questions on Portfolio Value

Portfolio managers need to devise *critical questions on portfolio value* that support development of capital-asset-focused strategies, roadmaps, and analytical models. The portfolio manager should ask critical question that cut across DSS to tease out strategies that drive an optimized portfolio. Each portfolio leader should establish a set of criteria that sets the key questions for determining portfolio capability value allocation decisions at each enterprise and execution portfolio tier. With more than 50 current PEOs migrated to being PAEs, the execution portfolios will cover a broad set of defense systems, and each portfolio would have a unique set of criteria to help determine for the portfolio what value means, allowing for tailored approaches.

Using Analytical Modeling of Strategy

All portfolio levels, whether OSD ECP portfolios or Military Service and PAE execution portfolios, need to use models to support allocation recommendations and decisions. All DoD-level ECPs should develop a 20-year capital asset strategy, aligned and linked to the NDS, which addresses their assigned functional capabilities. The goal of these strategies is to inform the discussion (through critical questions) on how defense resources should be allocated at the enterprise level across the services and execution portfolios to optimize capability in accordance with the NDS. Each strategy should focus on and recommend potential paths for changes to current Military Service and Defense Agency allocations relative to missions and resources with a focus on which changes have the best potential for an optimized capability across the next 20 years. The strategies should be supported by operations research (OR) modeling that considers both current and future (out to 20 years) capacity/mission planning needs.

Leveraging Data

Current program-oriented documentation can be transitioned to include a portfolio view to assist management and communication of the portfolio strategy and roadmap. Portfolio leadership should leverage and update current program-centric data sets to support creation of portfolio data sets and information needed to identify and document portfolio capability value decisions and allocations to portfolios/programs. A lean approach should be taken to consolidate the current program-centric planning/resource/reporting documentation to a more holistic system approach for portfolio-centric documentation. The portfolio strategy, roadmap, and periodic assessment reporting should provide transparency to stakeholders. Documentations, as appropriate, would be approved by negation. As portfolio strategies are created and overall portfolio management reporting matures, the program-oriented and DAES reporting would transition to a portfolio strategy annual and quarterly reporting.

Empowering Workforce

Workforce responsibility, authority, and accountability of the workforce should be fully aligned to the objectives of the PAE organizational mission. The operational chain of command runs from SAE to PAE (replaced PEO) to senior portfolio staff, including PMs and functional leaders. Senior functional leaders from the enterprise should be assigned full time to the portfolio organization and be rated in the portfolio organization on their contribution to successful achievement of the portfolio's objectives. Colocating competency personnel should include competencies charged with maintaining clearance certification (e.g., flight clearance and submarine safe), which must function as a check-and-balance system to ensure safety and good functional practice. Tension will occur between PM's and PAE's

directive authority and functional competencies. That tension is to further programmatic efficiency while maintaining standards and safety but needs to be elevated if it is affecting execution. The senior functional leaders within the PAE organization should also rate the full-time functional workforce assigned to the PAE as appropriate.

Implementation

Legislative Branch

- There are no statutory changes required for this recommendation.

Executive Branch

- Revise DoDD 5000.01, The Defense Acquisition System, as The Defense Capability Acquisitions and Sustainment Framework (a recommended draft is attached in the Implementation Details for this section) and incorporate applicable Section 809 Panel recommendations including the following
  - Implement best practices for portfolio management.
- Direct development of an implementing DoDI for the Defense Capability Acquisition and Sustainment Framework, which should include the following among other best practices:
  - Establish key questions for determining portfolio capability value relative to resources efficiency and effectiveness.
  - Use a combination of models to support resource allocation and capability delivery effectiveness decisions at each portfolio tier (PAE, Service, OSD).
  - Leverage and update current program-centric data set to support the creation of portfolio sets of data and information to document portfolio capability value and resource allocations to portfolios/programs. Aggressively lean documentation requirements. Address required reporting transition from program to portfolio as portfolio management matures.
  - Fully align responsibility, authority, and accountability of the workforce to the objectives of the PAE organizational mission. Delegate functional authority to individuals assigned to the PAE execution organization by the enterprise to execute the PAE organization's objectives. Rate these individual within the PAE organization on their contributions to the success of those objectives. Plan for tension between program and functional leadership that will positively affect outcomes so leaders learn to work together to achieve the PAE organizational mission objectives.

Note: Draft regulatory changes can be found in the Implementation Details subsection at the end of Section 2.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 39: Leverage a portfolio structure for requirements.

Problem

DoD's requirements system is under-resourced and lacks the speed, agility, and innovative approaches needed to effectively exploit leading technologies for military advantage. DoD's requirements processes, including implementation of JCIDS policies, contribute to lengthy development timelines, limited flexibility, and stove-piped systems. Although this process is important for CCMDs to provide joint warfighting priorities, the lengthy series of system-centric analyses, requirements documents, and reviews can limit innovation and interoperability by prematurely defining and constraining requirements.

Software is a driving force for most weapon system advancements, yet the requirements structure inhibits adoption of leading software development practices (e.g., Agile and DevOps). While offering some flexibility for software, programs are expected to define requirements at the start and obtain approvals from senior leaders. Agile and related methodologies dispel the myth that software programs must define requirements upfront, when the program has the least knowledge about user needs and the target solution. Commercial organizations develop software iteratively, with dynamic scope and requirements based on user feedback, interim performance, and shifting priorities.

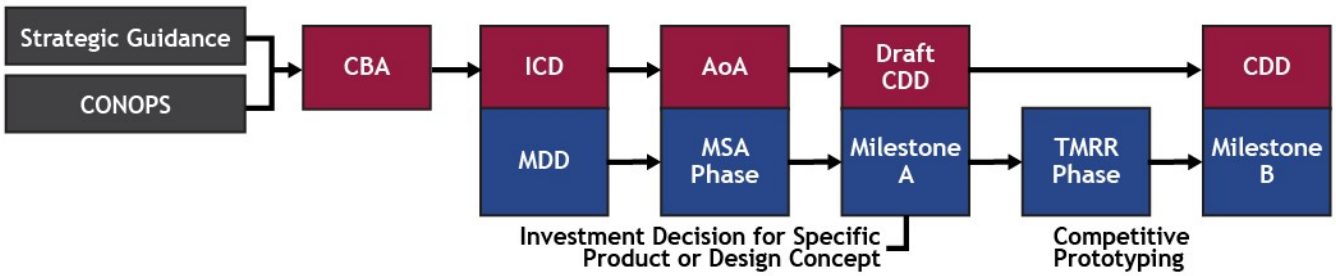
Recent DoD reform efforts have focused on streamlining coordination timelines for JCIDS requirements documents. These reforms fail to address the bigger issue of breaking down large, stove-piped programs from the start. DoD needs many small and midsized capabilities to complement and connect the major systems.

Background

JCIDS provides a critical and systematic process for incorporating CCMD inputs on capability gaps, operational requirements and funding priorities within constrained budgets. It has a portfolio structure based on functional capability areas, each with an FCB. JCS reviews ensure cross-Military Service issues are adequately addressed and limit duplicative requirements among the Military Services. JCS further validates requirements for critical areas to include communications, logistics, and cybersecurity. JCIDS also ensures nonmateriel aspects (e.g., doctrine, training, personnel) are aligned to maximize mission impact.

As shown in Figure 2-10, DoD strategic guidance and CONOPSs for the operational mission area drive a capabilities-based assessment (CBA). CONOPs often reflect a culture that identifies traditional, Military Service-specific capabilities. When a CONOP outlines a to-be state, it often lacks sufficient evidence-based analysis. These issues can preordain a biased Military Service solution or a technologically infeasible solution. Initial analysis takes place during the CBA and leads to development of one or more ICDs. The ICD serves as a key entrance criterion to the acquisition process at the materiel development decision.

Figure 2-10. Interaction of JCIDS Documents and Early Acquisition Lifecycle



Programs conduct an analysis of alternatives (AoA) and related analyses during the Materiel Solution Analysis (MSA) Phase to prepare for Milestone A, which, as outlined in DoDI 5000.02, is an "investment decision to pursue specific product or design concepts." Even at this early stage, programs will already have made some crucial decisions about the nature of the solution.[35] Many of these decisions are very important for ensuring joint warfighting success, but some may be unnecessarily restrictive. A draft Capability Development Document (CDD), with several mandatory and program-unique KPPs, is required for Milestone A approval.[36] KPPs can help constrain program costs and limit requirements creep in later phases, yet they can also restrict the solution trade space. Milestone A authorizes the program to advance to the Technology Maturation and Risk Reduction (TMRR) Phase: the point at which the procuring agency can engage industry and contract for competitive prototyping to reduce risk in the selected materiel solution. Typically, the Request for Proposal (RFP) for technology maturation or risk reduction either suggests or clearly identifies the preferred solution with detailed specifications and technical requirements. Because programs perceive urgency to complete the CDD and enter the development phase, the insights gained from risk reduction prototypes often come too late to effectively shape the CDD. These early commitments to a solution may serve to overly constrain innovative options.

The JROC or the Military Services' requirements council must approve the final CDD before a program can release the RFP for system development. A 2015 GAO report indicated that completing a CDD takes, on average, 24 months—the longest timeframe of all the program documentation the GAO reviewed.[37] Lengthy AoAs, conducted in parallel with the CDD development, contribute to these timelines. The CDD sets the scope of a major program for a decade or longer of development, testing, and production. During this timeframe, changes occur constantly across operations, threats, priorities, budgets, technologies, and related systems; however, unless the Military Service wants to use the update process, the requirements remain fixed. Updates are reviewed and approved by a configuration steering board (CSB) chaired by the SAE, with membership consisting of executives from the relevant

[35] "Failures of Imagination: The Military's Biggest Acquisition Challenge," Jarrett Lane and Michelle Johnson, *War on the Rocks,* April 3, 2018, accessed December 30, 2018, https://warontherocks.com/2018/04/failures-of-imagination-the-militarys-biggest-acquisition-challenge/.
[36] "Key Performance Parameters (KPPs)," DAU Acquipedia, accessed December 30, 2018, https://www.dau.mil/acquipedia/pages/articledetails.aspx#!346.
[37] GAO, *Acquisition Reform: DOD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies, GAO-15-192,* February 2015, accessed December 30, 2018, https://www.gao.gov/assets/670/668629.pdf.

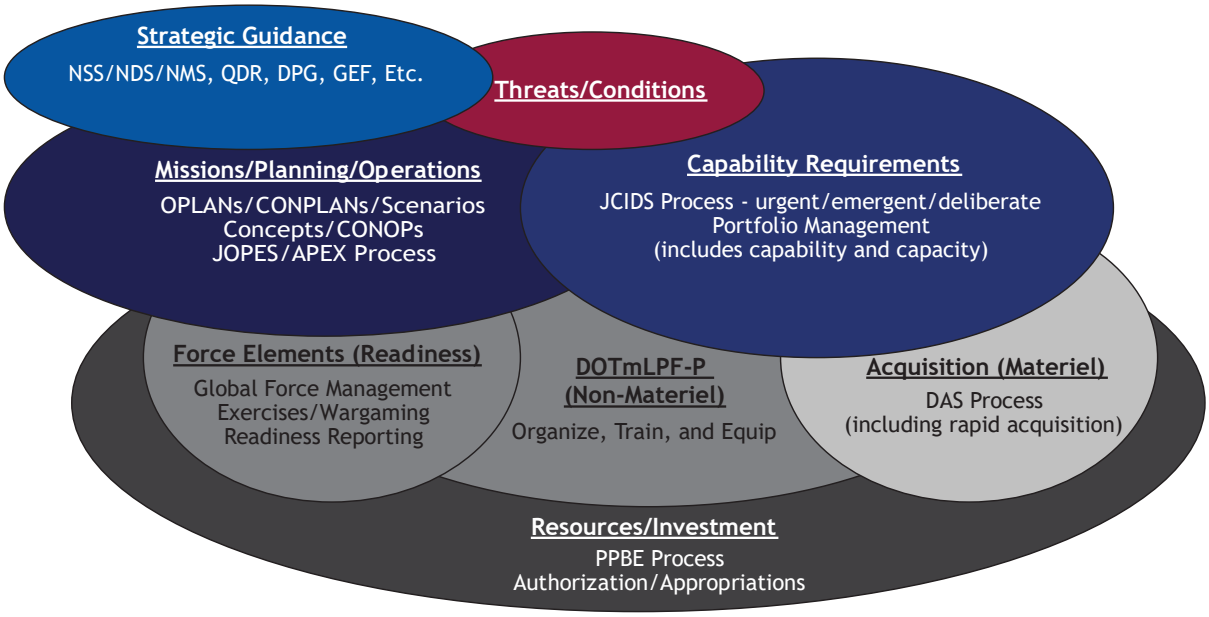
Military Service, OSD, and JCS. Often, the lack of knowledge about requirements processes hinders and lengthens each step's completion.

Realizing that subsequent increments or programs may follow many years later, operational sponsors are incentivized to include most known requirements in the current CDD. This practice compounds risk by expanding the program scope, the number of critical technologies to mature, and variances in estimates. These compounded risks drive longer timelines and higher costs to achieve the target system's initial operational capability (IOC). JCIDS does have fast track lanes for urgent operational needs (UONs) that affect an ongoing contingency operation and Joint emergent operational needs (JEONs) that affect an anticipated contingency operation. The CCMDs, the CJCS, and the VCJCS identify joint UONs and JEONs, while the Military Services may also identify UONs. The JCIDS manual outlines staffing timelines of 15 days for UONs and 31 days for JEONs, whereas the traditional deliberate planning timeline is 97 days. DoDI 5000.02 states these capabilities must be fielded in less than 2 years.

During development, PMs may discover that the program has experienced major operational and threat changes, technology maturity or performance issues, budget changes, or other disruptive factors. ACAT I and IA programs must convene a CSB at least annually to review all requirements changes, significant technical configuration changes, and descoping options to reduce costs or respond to emerging threats. The CSB reviews and may recommend changes to the requirements authority.

As highlighted in Figure 2-11, the JCIDS process of coordinating the major capability requirements documents is just one part of the broader DoD requirements processes. Strategic guidance (e.g., NSS and NDS) provides DoD an overarching framework of objectives and priorities to shape operations, requirements, and investments. The missions, planning, and operations function includes operational plans and CONOPS that articulate operational capabilities and how an organization plans to accomplish its missions. In force elements, the Military Services and Combat Support Agencies organize, train, and equip materiel and nonmateriel solutions to provide forces to the CCMDs. Although DoD's requirements processes interface with the acquisition and budgeting processes, tighter alignment is critically needed for more efficient and effective solution deliveries. DoD needs to examine the requirements processes holistically, beyond JCIDS boards and documentation reviews (along with aligning with budget, acquisition, and sustainment) for greater speed, agility, and innovation for mission impact.

Figure 2-11. Requirements Process Interactions[38]



Discussion

Problems with DoD's Requirements Processes

The lengthy analysis and documentation procedures involved in JCIDS are designed to set requirements for billion-dollar platforms that will operate for several decades. Three to 5 years may elapse from the time an operational commander initially identifies a capability need to when a CDD is approved. The only other pathway currently available is an *express lane* for meeting urgent or emerging operational needs. Military Services' implementation of Middle Tier Acquisition outlined in Section 804 of the 2016 NDAA includes the Service Chief approving requirements, which appears excessive for a rapid prototyping project. DoD needs many intermediate pathways to provide *just enough* analysis and requirements documentation for midsized systems, with lifespans under a decade, that can be iteratively upgraded by subsequent releases. This situation calls for a set of processes that can exploit mature, leading technologies for military capabilities today by establishing an architecture that can integrate emerging technologies tomorrow. For example, a fifth-generation fighter requires different rigor in documentation than a small, command-and-control IT solution. F-35 software upgrades (and fixes to critical safety or operational issues) require a different approach than the initial CDD for the program. A program that relies heavily on COTS solution requires a different approach than a new development program with maturing technologies. Acquiring IT as a service is different from tailoring a COTS solution or developing new software development.

The Requirements System Inhibits Contemporary Software Development Practices

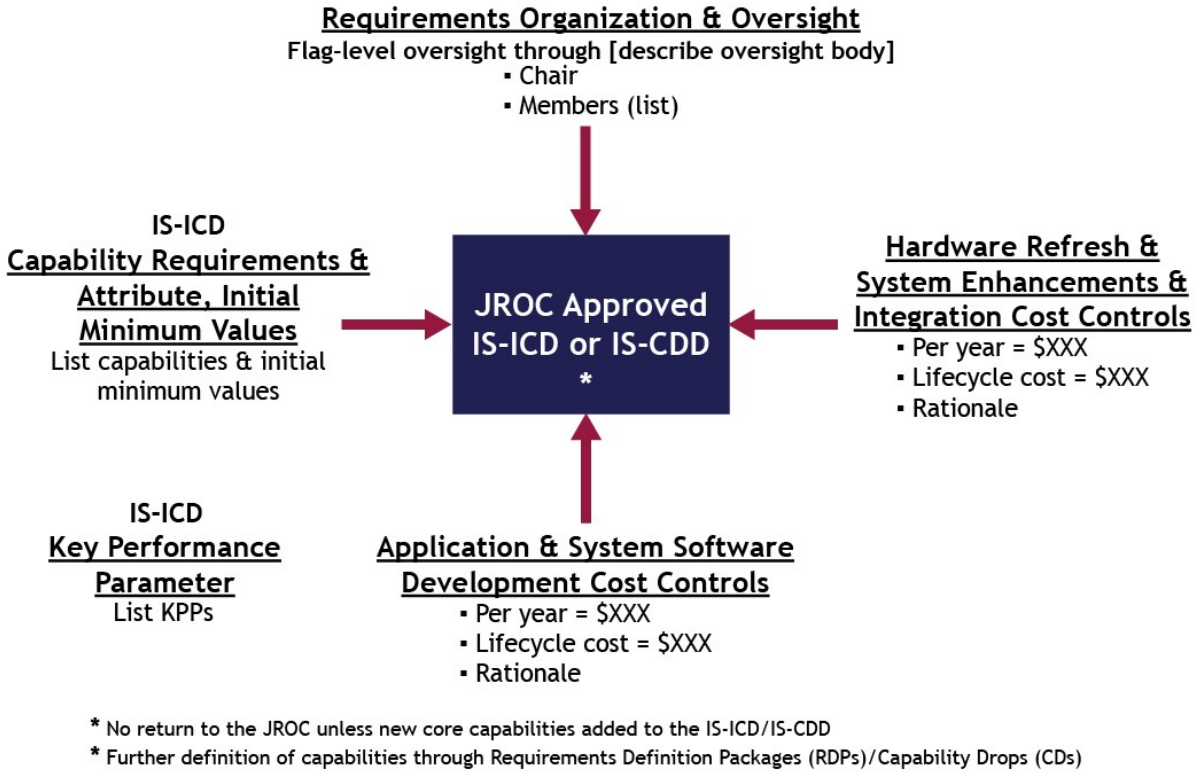
As shown in Figure 2-12, the IT Box model in the JCIDS manual was designed to enable flexibility in requirements for software development costing more than $15 million. The four sides of the IT Box

[38] Source: Joint Capabilities Integration and Development System (JCIDS) Manual of Operations.

represent a flag-level oversight requirements board, validated capabilities and initial measures of effectiveness, estimated software development and integration costs and estimated sustainment costs. JROC approves an information system variant of the ICD or CDD that defines these boundaries. Provided the program *stays within the box*, it does not require subsequent JROC approval or JCIDS documents. The program can iteratively define smaller requirements documents for approval by its flag-level requirements board.

Although the IT Box originally required programs to generate a high-level IS-ICD for the JROC to approve, the JROC has since designated the IS-CDD as the guiding document. Per discussions with JCS/J8, IS-CDDs can average 40 pages and require 2.5 months of staffing by the JCS (in addition to Military Service-level staffing) to receive JROC approval. The JCS envisions that programs will generate IS-CDDs for each major incremental development, not for an entire major system.

Figure 2-12. IT Box Primer



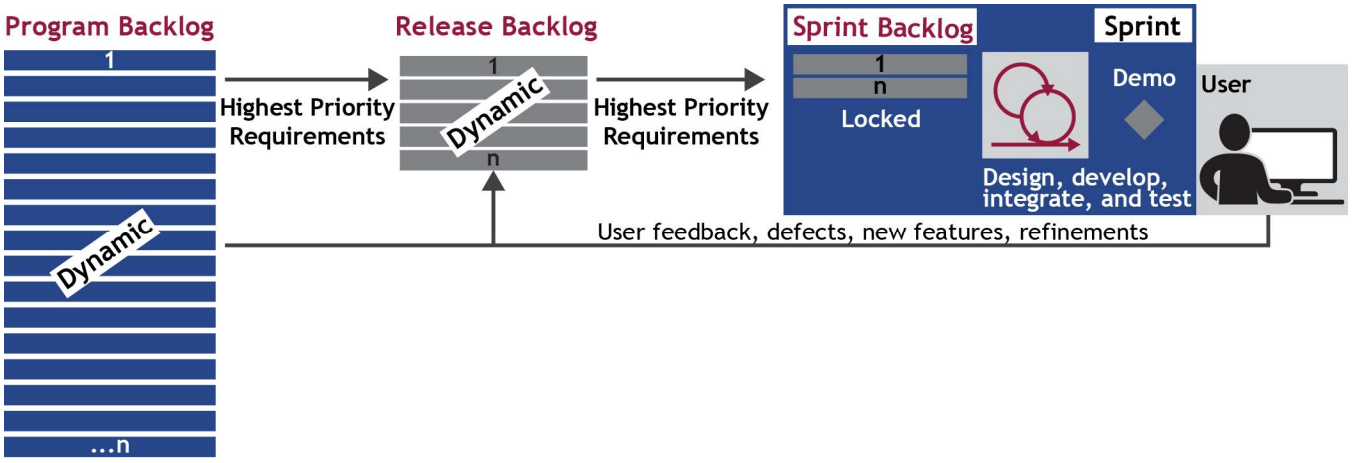
Source: Adapted from DAU graphic.

This approach is based on the fallacy that programs can effectively define the scope and requirements for a major software development effort upfront and bound the program by the estimated development and sustainment costs. By contrast, as noted previously, in leading software development practices—such as Agile and DevOps—users, acquirers, developers, and other stakeholders iteratively define, prioritize, and change program scope and requirements. They begin with a hypothesis of the desired functionality and iteratively build, test, and demonstrate capabilities in close coordination with users. Users and engineers provide feedback on interim developments to shape future iterations. A growing number of DoD software programs are embracing this model, with some notable successes achieved by

programs such as the Air Force's Air Operations Center Pathfinder program, which delivers higher-quality, lower-risk, secure software on a weekly release schedule to warfighters.[39]

Leading commercial corporations and start-ups apply Agile practices to manage software requirements via dynamic, prioritized backlogs of user stories. User stories capture the functionality the end users expect the software to deliver, often with a clear *definition of done* that serves as the acceptance criterion. A product owner collaborates with the stakeholders to prioritize the user stories on the product backlogs—the set of features for which software must be developed (see Figure 2-13). The highest priority features determine the scope of the next time-boxed release backlog. The development team commits to design, develop, integrate, test, and demonstrate working software for each sprint backlog to users and testers. Based on software performance and user feedback, product owners may make changes to the release and program backlogs to shape user stories and priorities.

Figure 2-13. Example of Agile Backlogs



Conclusions

Develop a Capstone Set of Requirements for Each Portfolio

Instead of producing a large set of system-centric requirements documents, the Military Services and Defense Agencies should develop a set of capstone requirements and related materials for each execution portfolio. These items would guide the iterative delivery of an integrated suite of capabilities to maximize operational impact.

The Military Service headquarters leadership, in collaboration with their respective Military Service Chiefs, operational commands, and JCS, should work to provide each execution portfolio with an integrated, capstone set of requirements and threat assessments (from the intelligence community). This approach would focus the JCS and Military Service Chiefs on the strategic operational

[39] "AOC Pathfinder is Saving USAF Big Money, and It Wants More of It," Air Force Magazine, February 22, 2018, accessed December 30, 2018, http://www.airforcemag.com/Features/Pages/2018/February%202018/AOC-Pathfinder-is-Saving-USAF-Big-Money-And-It-Wants-More-of-It.aspx.

requirements, while enabling portfolios to manage speed and agility of capability requirements for specific systems/programs at lower levels.

The capstone documents would include:

- **Enduring Enterprise Requirements (EERs):** Current and future operational requirements of the Military Services and CCMDs based on the relevant CONOPs. These would not be written at the system level or allocated to individual systems; ideally, they would be constrained to a few strategic themes to provide strategic direction.

- **Measures of Force Effectiveness (MOFEs):** Specific measures of how a force mix (a system of systems consisting of elements such as sensors, weapons, and communications systems) performs against the EERs. MOFEs represent the culmination of the Measures of Effect and Measures of Performance currently captured in ICDs and CDDs. This would impel the PAE to iteratively deliver capabilities to maximize performance against MOFEs, focusing investment on the highest mission impact.

- **Mission Threads, Kill/Effects Chains:** Representative vignettes that illustrate specific operational scenarios. The vignettes would expand upon the Mission Engineering work within OSD, JCS, and the Services to identify a series of effects chains and would focus investments to strengthen any *weak links* in the chain, holistic integration, and strategic outcomes.

The capstone requirements provide the PAE direction for shaping prototypes and experiments, the trade space for program requirements, and resources to maximize mission impact. Ideally, capability requirement documents for programs would be iteratively developed and approved at lower levels (within the Military Services' corporate structure) to focus on more detailed, specific needs. KPPs for MDAPs would still be validated by Military Service Chiefs and/or Service Headquarters Staff, and (if the program is of JCS interest), by the JROC.

Empower PAEs with Flexibility to Shape and Shift Program Scope and Requirements

Replicating the success of the Air Force Rapid Capabilities Office, the PAE should be empowered to shape program requirements below a KPP. The PAE would be responsible for iteratively delivering capabilities based on their capstone portfolio requirements, technological maturity, cost/budget, schedule, system performance, risks, threats, and other such considerations. PAEs would allocate capability requirements to different elements of the portfolio based on analytics to maximize MOFEs and mission impact. As programs progress, operations, threats, and priorities change. PAEs would shift requirements across programs/projects to maximize the effect of each investment in close coordination with operational commanders, empowered operational representatives within the portfolio, and other key stakeholders. This approach would not require CSBs with senior DoD officials or extensive documentation coordination across DoD. Instead, it would potentially enable programs to provide capabilities to operational commands years sooner at lower costs than if they waited to mature all technologies and develop and test all functionality to meet 100 percent of the requirements defined a decade earlier.

Assign Empowered Operational Representatives to Each Portfolio

Tighter integration of the operational and acquisition communities is critical to delivering mission impactful capabilities. Requirements organizations and operational commands currently invest time in authoring system requirements documents and collaborate with program offices with varying levels of success. A better approach would be to embed empowered operational representatives within each portfolio.

The empowered operational representatives would help shape the vision for key capability areas within the portfolio. They could provide insights on current operations and threats to help acquisition professionals and contractors shape capability developments. These representatives could provide rapid feedback on interim developments and connect programs with operational commanders and end users; assist in establishing portfolio priorities; and define, shape, and prioritize lower-level capability requirements. Requirements would be constrained by available portfolio budget and strategic direction. The operational representatives could also advise the PAE on shaping lower-level program requirements and senior leaders on strategic, long-term priorities, capability needs, and investments. These operational representatives would serve as key linchpins to shape a portfolio/mission area; therefore, portfolios should competitively staff these billets with experienced operators who have strengths in strategic planning, collaboration, and systems engineering. While the operational community faces resource constraints, embedding the right representatives to shape a portfolio's acquisitions is a critical investment to ensure timely delivery of capabilities that maximize mission impact.

As Congress has authorized new acquisition pathways and greater flexibilities, DoD has a prime opportunity to develop a tighter collaborative relationship between technologists and warfighters to iterate and identify innovative new means and ways to shape the environment. It is important not to constrict the opportunity space by biasing capability development through the lens of yesterday's and today's operations. In some cases, where an operational community is fixed on a known means and ways, there will be value to let the CONOPS drive requirements and solutions. In other cases, however, CONOPS should result from a deeper, objective understanding of technologies and their military applications, which would enable innovation achievement in the means and ways.

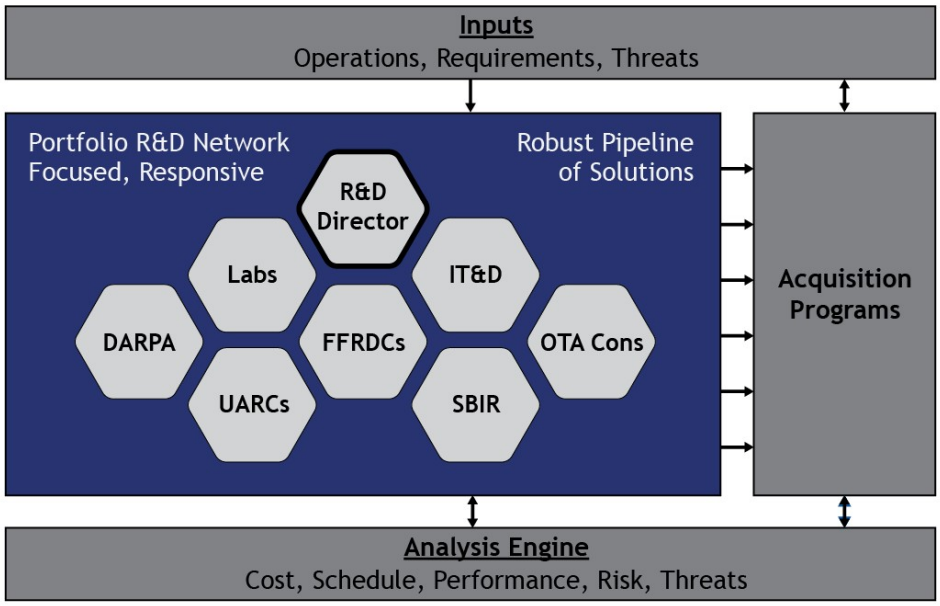
Maximize Use of Prototyping, Experimentation, and Minimum Viable Products

Execution portfolios should maximize use of prototyping, experimentation, demonstrations, and minimum viable products (MVPs) independent of specific programs as well as in the early stages of a given program's acquisition lifecycle. Congress and DoD, over the last few years, established a series of initiatives, funds, organizations, and pathways to increase use of these practices. DoD has begun implementing middle-tier acquisition via rapid acquisition and rapid fielding pathways per Section 804 of the FY 2016 NDAA. These pathways can prototype innovative technologies, demonstrate them in an operational environment, and produce mature capabilities without having to go through JCIDS and DoDD 5000 acquisition processes. A prototype or MVP in the hands of operators and engineers would accelerate learning and design of solutions beyond a team conducting a CBA or AoA. Portfolios should use the multiple prototyping pathways to the maximum extent before establishing a formal program or follow-on increment to shape scope and requirements. Iterative prototypes and MVPs would improve opportunities to exploit leading technologies and the chances of delivering high-value capabilities to

warfighters. Prototypes provide valuable inputs to mission engineering efforts by demonstrating how strengthening individual elements of a mission thread generate holistic impact.

As highlighted in Figure 2-14, each portfolio should collaborate with a robust R&D network, including the Defense Advanced Research Projects Agency, government laboratories, federally funded research and development centers, university affiliated research centers, and industry. Industry R&D can come from a variety of sources that include the Small Business Innovation Research program, Other Transaction Authority Consortia, and DoD-industry liaison programs such as DIU, SOFWERX, AFWERX, partnership intermediary agreements, technology investment agreements, grants, and cooperative agreements. Each portfolio's network could collaborate and compete on research to exploit leading technologies for military advantage. This network should focus on ensuring a robust pipeline of innovative solutions to shape the scope of new programs and modernize existing systems. Each portfolio could establish an S&T/R&D director to coordinate research activities and investments with the portfolio's network, Military Service leadership, and the USD(R&E). The directors would develop an S&T/R&D strategy and roadmap to align research with portfolio priority needs and opportunities. They could shape R&D investments as a diverse portfolio of many seedling efforts with stage funding from multiple DoD sources, technology agreements, and industry R&D funds. The S&T/R&D strategy should include *technology push* opportunities to apply leading technologies to military needs. The portfolio S&T/R&D director would be responsible for ensuring the most promising S&T/R&D projects cross the *valley of death* to be integrated into programs of record and fielded. This effort would include use of transition confidence levels to proactively connect, shape, plan, and fund the technology transitions.[40]

Figure 2-14. Interplay of Portfolio R&D, Requirements, and Analysis



[40] Anthony Davis and Tom Ballenger, "Bridging the 'Valley of Death'," *Defense AT&L Magazine,* January–February 2017, 13-17, accessed December 30, 2018, https://www.dau.mil/library/defense-atl/DATLFiles/Jan-Feb2017/Davis_Ballenger2.pdf.

Develop Portfolio Analysis Engines and Model-Based Enterprise Architectures

Portfolios could also develop analysis engines for continual integrated analysis of capabilities, requirements, threats, cost, schedule, performance, risks, and other factors. Instead of a linear, serial, program-centric model of CBAs and AoAs, a portfolio team (with staff augmentation from operational, acquisition, and sustainment commands) could expand that analysis across a suite of capabilities.

As captured in Recommendation 36 of this report, each portfolio should have an enterprise architecture lead/group that uses model-based engineering. These enterprise models, with related portfolio analysis, would help shape portfolio priorities, capability scope, and requirements, which would help ensure capabilities are designed and developed to maximize interoperability within and across portfolios. Enterprise architects would work with their peers in other execution portfolios, Military Service headquarters, and ECPs.

Tight integration with cost analysts, systems engineers, users, and financial managers helps to assess the cost-performance trade space to scope affordable solutions. Prior to the 1996 DoDI 5000.2-R establishing AoAs, DoD conducted cost and operational effectiveness analyses (COEAs).[41] The COEAs emphasized quantitative cost analysis in program formulation. Although the current policies dictate program affordability targets and caps, and cost is part of AoAs, more comprehensive cost analysis could be used to shape program scope and requirements. Adopting more portfolio management practices as outlined in this report, along with revisiting some of the COEA practices, would help ensure programs are bounded by realistic affordability constraints, based on available portfolio budgets.

Manage IT Requirements Using Dynamic Portfolio Backlogs

A software requirements model should be timely, iterative, dynamic, and user-centric. Execution portfolios should manage their capability requirements via a series of dynamic backlogs rather than large static documents. As mentioned earlier, a dynamic backlog is a prioritized list of required functions written from an operational user's perspective but can also include technical requirements such as cybersecurity. The highest priority items on the backlog drive the next capability development or research (if greater technology maturity is needed). The requirements to shape a new capability development could be iteratively captured and approved via a tailored document, depending on the size, scope, cost, and risk. Managing requirements via backlogs is easier for software and IT given their dynamic and severable traits, but portfolios could also employ this approach beyond IT programs with smaller, iterative developments.

The portfolio's operational representative should be empowered to dynamically reprioritize, add or delete, and shape capability requirements based on operational needs, threats, technical performance, systems engineering, security, feedback from earlier releases, and other factors. These representatives would actively collaborate with operational commanders, end users, organizations providing threat assessments, and enterprise architects to curate the portfolio backlog. During portfolio reviews with Military Service leadership and operational commands, PAEs and their operational representatives

[41] Defense Acquisition Management Documentation and Reports, DOD 5000.2-M, February 1991, Part 8: Cost and Operational Effectiveness Analysis, accessed December 30, 2018, http://www.whs.mil/library/mildoc/DOD%205000.2-M,%20February%201991%20Part%201.pdf.

could present the requirements backlog to ensure alignment with Military Service and CCMD operational priorities and outcomes.

Each program or increment could also manage its requirements via dynamic backlogs. As interim developments are demonstrated or fielded, user feedback and system performance might generate new capability requirements or shift priorities for the backlog. The goal should be to ensure that each successive iteration addresses the users' highest priority needs and strengthens force effectiveness.

Consider Breaking Large Programs Down into Smaller Efforts to Iteratively Deliver Capabilities

As DoD establishes execution portfolios or adopts related practices within the portfolios, PAEs should consider opportunities to decompose large programs currently in the planning and development phases into multiple smaller efforts. Each program would need to balance the pros and cons of restructuring to include timing and system-of-systems integration, which may require revisiting the CDD and acquisition strategy structure of programs in development. The VCJCS should update the JCIDS manual to enable a more iterative structure in CDDs in future programs by adopting the proposed CDD annex approach in the new JCIDS manual and effectively implementing it.

This approach would enable PAEs to comply with the direction for rapid, iterative development in the NDS, DoDD 5000.01, and FAR Part 39. For example, instead of spending a decade to deliver all the functionality required in a CDD, the program could be structured to deliver functionality years sooner and iteratively deliver capabilities and new technologies via future releases, manage common subsystems (e.g., communications or sensors) via a single group within the portfolio, and integrate across platforms. If a technology or performance parameter proves more difficult to implement than planned, the functionality could be deferred to a subsequent release to allow mature capabilities to be fielded near-term.

Implementation

Legislative Branch

- Include language in the next NDAA authorizing Military Services and Defense Agencies to pilot a portfolio requirements approach within one or more of their current PEOs or via the proposed execution portfolio structure.

Executive Branch

- Charter teams to develop a set of capstone requirements for each execution portfolio. These capstone requirements should include EERs, MOFEs, and mission threads/effect chains/mission engineering. They should provide an umbrella set of requirements to shape capability research, planning, and developments.
- Update the JCIDS manual, CJCS Instruction (CJCSI) 5123.01, and DoDI 5000.02 to empower PAEs to shape and defer lower-level requirements, below a KPP, for programs in development.
- Determine a reasonable level of delegated authority based on the size of the program, changes, risks, and other factors. The PAE should be empowered to make changes to approve requirements on ACAT II–IV programs and lower-level requirements for ACAT I programs, in

collaboration with key stakeholders. *Major* changes (e.g., KPPs for ACAT I programs) will require senior approval via the CSBs and/or related processes as defined in current acquisition and requirements policies.

- Assign one or more operational representatives to each execution portfolio. These representatives would report directly to the PAE and may have dual reporting to an operational command or headquarters staff.

- Update DoDI 5000.02 to prioritize prototyping, experimentation, and delivery of MVPs before the start of a program and in the early phases of the acquisition lifecycle. PAEs should be empowered to work with the R&D community to rapidly fund prototyping efforts to shape the scope and requirements of new programs, upgrades to existing programs, projects to improve interoperability between systems, or initiatives to improve the readiness of fielded systems.

- Charter a team to iterate on the IT Box model or develop a new approach for meeting software requirements. The team lead and team members must have experience with or a deep understanding of Agile development practices. The chosen approach should enable adoption of software development practices to include Agile and DevOps through use of dynamic, prioritized backlogs managed by product owners rather than large, static documents. Authorize iterative release approvals at the lowest level commensurate with program scope, cost, and risk.

- Outline multiple requirements pathways for DoD to follow. The pathways may include Middle Tier Acquisition rapid prototyping and rapid fielding; technology insertion and iterative upgrades to existing systems; software intensive systems; business systems; commercial solutions with little to no development; formalizing a government R&D program; IT services, cyber acquisition, and limited lifespan capabilities with little to no sustainment needs.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 2.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 40: Professionalize the requirements management workforce.

Problem

DoD's RM workforce is responsible for executing JCIDS and component requirements development and management processes. The RM workforce is not a professional career like the professional career fields that enable the PPBE system and DAS.

Capability requirements executives have expressed concern over the lack of an identified, trained, experienced, managed, and resourced RM workforce. Acquisition professionals receive extensive training and follow different, professional growth and career development paths providing years of experience in each successive job role. They often require a decade of experience to become proficient in their fields. RM organizations frequently have military operators who take a few Defense

Acquisition University (DAU) and Military Service-unique training classes with little to no prior experience in the field. Operators typically serve in requirements jobs on short assignments of 18-24 months with little to no prospect of returning to RM jobs in the future.

DoD has taken steps in compliance with statute to develop and provide professional training to the RM workforce by DAU and individual components. DoD has not provided the structure to motivate recruitment, growth, and retention of RM professionals as key enablers to effectively identify the capabilities needed for operational success.

The short, one-time assignments and lack of successive job roles to provide professional growth and experience prevent incumbents from gaining the proficiency necessary to understand the complex environment and effectively capture and shape system requirements. Further exacerbating the challenge, Military Services have been left to develop their own unique definitions of RM job roles, certification standards, personnel identification, and personnel management as RM personnel.

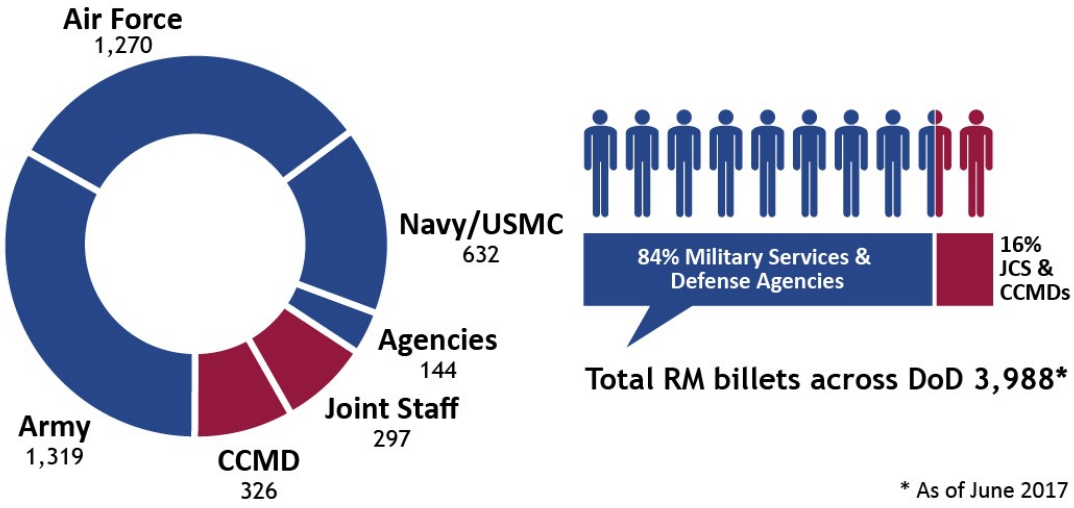
The RM workforce lacks a career path with roles and responsibilities and progressive experience. Each Military Service has unique RM definitions and lacks rigor in managing the manpower and career path standards. Undermanning and a dearth of RM professional skills and experience exacerbate the problems. RM requires a professional workforce capable of doing more than developing and staffing program requirements documents to assess the strategic and portfolio perspectives. More can be done to align the strategic guidance (e.g., NDS), CCMD priorities, capability gaps, threats, mission engineering, and capability roadmaps.

Background

As of June 2017, there were 3,988 RM billets across DoD. The JCS and CCMDs accounted for 16 percent, and the remaining 84 percent were in the Military Services and Defense Agencies (see Figure 2-15). In the FY 2007 NDAA, Congress directed the USD(AT&L), in consultation with DAU, to develop a training program for DoD personnel responsible for generating requirements. USD(AT&L)—working with Joint Staff J-8 and codified in the JCIDS manual—established and mandated the Requirements Management Certification Training framework comprising four different groups of RM personnel requiring completion of five courses for certification. These groups include requirements originators and support, writers and developers, core expertise, and senior-level validators and prioritizers. DAU has the authority and responsibility to develop and provide training. Departments and agencies have the authority and responsibility to identify personnel who need training, send personnel to training, and certify RM personnel. As of June 2017, 66 percent of the billets were filled by trained personnel, 21 percent were filled by untrained personnel, and 13 percent of billets were unfilled.[42] DAU provides the training and has worked with the requirements community to iteratively update the RM training curriculum provided by DAU and has provided development assistance to Military Service-unique training. In 2018, DAU began a major review and restructure of the RMCT curriculum to provide experiential learning and job support tools. These tools would be essential to rapidly develop timely and relevant capability requirements and better prepare RM personnel for the more rapid and agile emerging acquisition environment.

[42] J8 2017 Requirements Management Certification Team, Joint Staff Action Process Report to Functional IPT.

Figure 2-15. DoD RM Billets



Discussion

DoD RM cannot be done effectively by having warfighters serving in ad-hoc roles for a short tour before returning to operations. The RM community must have strong ties to the operational community. A warfighting operational perspective—preferably from top warfighting performers with recent operational experience—is essential to inform the front end of capability requirements development and management. Military Services should consider how top warfighters can play a more active role in RM. Military RM professionals with relevant operational experience, when coupled with their civilian RM counterparts who remain in their jobs longer, could form a highly skilled and experienced team as part of a common professional career path.

Some executives believe the loss of systems engineering support for JCIDS damaged the RM process.[43] Broad agreement exists regarding the importance of systems engineering analysis early in the process to develop requirements, CBA, and enterprise architectures. Early systems engineering would help ensure capability requirements are realistic given technology maturity, testability, affordability, and interoperability. Executives disagree as to how much systems engineering should be performed by the JCS, OSD, and Military Services. Although JCS and OSD benefit by having greater systems engineering and technical expertise from an enterprise requirements and architecture perspective, defining capability requirements and robust analysis should be done within the Military Services' and Defense Agencies' operational, R&D, and acquisition commands.

Conclusions

DoD requires a centralized definition of a RM profession and career for both military and civilians—and their combination as a force multiplier. It could be modeled on those for the acquisition workforce (see Section 5)—featuring career paths and the associated training and experience with increasing responsibilities and a growth track of roles—to strengthen and expand a cadre of capable RM professionals. RM professionals should act as warfighter partners, and the PM should provide the connections between operations and acquisition. They understand the strategic guidance, OPLANs,

[43] Information gathered during Section 809 Panel Sustainment Workshops, February–March 2018.

and CONOPs to interpret the capability requirements and the business language for funding and resourcing the solutions. JSC/J8, Military Service requirements headquarters, and operational commands—with the advice of DAU—should collaboratively define a common DoD RM profession including:

- **Growth-Defined Job Roles:** Job roles, based on tasks to be performed, should provide professional growth when coupled with defined job experience. DoD should define a common set of RM job roles for military and civilian members.
- **Experience-Defined Career Paths:** Career paths, with the potential for upward mobility, should be defined and incentivized for growth within and across Military Services for the civilian workforce.
- **Professional Training and Job Support Tools:** This is the most developed component of the career professional model across DoD. Professional training and job support tools should be based on tasks to be performed.
- **Standards:** Professional training and experience standards are essential for each job role across a career.
- **Selection Criterial/Targeted Recruiting:** To grow a cadre with operational warfighting experience and requirements process, resourcing process, and acquisition process experience, including systems engineering, S&T, or R&D experience section criteria and targeted recruiting are essential.
- **Incentivized Workforce:** To grow and sustain an RM profession that is agile and focused on the delivery of timely and relevant capability to warfighters, the workforce must be incentivized.
- **Accountability:** Accountability is essential to meet professional standards and ensure delivery of timely, relevant capabilities in partnership with the acquisition workforce and ultimately the warfighter.

JCS/J8, Military Service requirements headquarters, and operational commands—with the support of DAU—should also examine military and civilian billets, opportunities for common job roles, development of military and civilian job performance duties leveraging skills and experience brought to the table by both communities, work experience opportunities, both military and civilian career progression paths, and the balance of military and civilian billets to provide relevant and timely capability. To increase continuity and effect, while reducing turnover, DoD should consider allocating more billets to civilian personnel (ideally with operational, systems engineering, and/or acquisition experience) who will remain in the organization longer than Military Service members. JCS/J8, Military Service requirements headquarters, operational commands, and DAU should mature the training and education by creating subsequent iterations of the RM curriculum and adding more just-in-time training. These stakeholders should also explore a facilitated approach similar to the Services

Acquisition Workshop (SAW) with an integrated team embarking on capabilities analysis and requirements for a major system.[44]

Implementation

Legislative Branch

- There are no statutory changes required for this recommendation.

Executive Branch

- Develop a strategy for a more formalized RM profession. This strategy should include the RM billets; education, training, and certification; targeted recruiting; career paths; and engagements with the R&D community, industry, and innovation organizations across the defense community.
- Allocate additional resources to RM to include extending military tours in RM positions and increasing the number of civilian billets. This ensures DoD is investing in the right capabilities and effectively laying the groundwork to develop and produce capabilities that have the greatest mission impact.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 41: Establish a sustainment program baseline, implement key enablers of sustainment, elevate sustainment to equal standing with development and procurement, and improve the defense materiel enterprise focus on weapon system readiness.

Problem

Defense sustainment is a highly complex system of systems operating without fully coordinated requirements, under multiple commands and departments, receiving separate funding streams, often yielding disconnected decisions on total weapon system readiness, operating without sufficient data intelligence, with success graded on disconnected measures. The current state of readiness is driven by structure and strategy implications of decisions that focus on business concepts rather than the required outcome or customer measure of success or failure. Accountability is diffused to the point that no single authority is responsible for material readiness to meet operational requirements.

[44] A SAW is a facilitated workshop built around a specific acquisition and its team to mentors and guides them in developing their contract plans, research, requirements, request for proposal, source selection, and contractor assessments.

DSS suffers from shortcomings that inhibit its performance:

- There is no single document that governs sustainment costs, schedule, and performance throughout the lifecycle of a program (weapon system).
- Sustainment leadership expertise on SAE staffs is not given the same credence as acquisition and procurement.
- Issues in cost estimation, contracting, *color of money*, intellectual property (IP) and data rights, and metrics and data analytics impede sound sustainment decisions and timely actions.
- The Defense Materiel Enterprise (DME) is not sufficiently focused on weapon system readiness.

Lack of Governance for Sustainment

During development and production, the APB constrains a program's cost, schedule, and technical performance in terms of objectives and thresholds, but the APB provides little governance over the sustainment phase of a program's lifecycle. The APB is the governing document from program start (Milestone B) through full-rate production (FRP), yet this critical document pertains to less than one-third of the program's lifecycle costs and an even smaller portion of its life.[45] The PM reports program progress toward the thresholds in the APB to the MDA, the SAE, and Congress. Exceeding APB thresholds can cause a statutory Nunn–McCurdy breach and possible program cancellation. The APB, with its consequences for failure, has proven to be a strong motivator for the DAS. There is no equivalent governing document for programs in sustainment. Once fielded, a weapon system is supported by multiple individual sustainment organizations, each providing singular product support elements. Because there is no coordinated and constrained governance for program sustainment, weapon system readiness has become the unpredictable outcome of an unconstrained and unfocused defense sustainment system. As a result, PMs can find their programs affected by external budgetary and policy decisions with little opportunity to recover in a timely manner.

By DoD policy (DoDI 5000.2), PMs are responsible for cost, schedule, and performance management of their programs throughout the lifecycle. Although PMs can appropriately manage development and procurement during acquisition, they do not have the authority or capability to manage weapon system sustainment that delivers readiness. Instead, readiness is controlled by the sustainment *silos* providing the product support elements within the DoD sustainment system.

Standing of Sustainment

Sustainment does not stand on equal footing with development and procurement during the acquisition phase of a program. Responsibility and accountability for sustainment management do not converge on any single organization or individual focused on weapon system readiness. Sustainment costs are born out of design trades and decisions made during a program's development and procurement. Sustainment funding has often been used as the PM's *management reserve* (MR) to meet unplanned program issues during development and production, likely because deferment of product

[45] O&S costs are estimated to make up as much as 70 percent of the total lifecycle cost of DOD's major weapon systems. S. Report 112-26, *Report to Accompany the National Defense Authorization Act for Fiscal Year 2012,* June 22, 2011, 136.

support activities is believed to be recoverable later in the program. Delays in planned product support investments affect reliability and maintainability and substantially increase support costs and affect readiness. Requirements officials tend to focus more on traditional operational performance factors (i.e., speed, range, firepower) and less on sustainability (i.e., availability, reliability, maintainability, ownership costs). As a result, the latter often are subsumed by design trades and unforeseen cost increases during acquisition.

Sustainment Activities Lack Modern Enablers

Planning and investments for sustainment activities are further inhibited by issues with funding types and obligation rates, procurement restrictions, cost modeling, IP and data rights, and lack of knowledge sharing across the enterprise. Cost estimating tools for total lifecycle costs have not evolved as much as those used to calculate development and production costs. As a result, models used to determine lifecycle costs do not produce reliable calculations. Unlike commercial counterparts, military systems in general lack sufficient data to support use of data analytics. Commercial entities warehouse system performance data and constantly analyze it looking for trends that can help predict when preventive maintenance can be done to avoid costly, sometimes catastrophic repairs. This same data can be used to support effective decision making throughout the system's lifecycle.

Defense Materiel Enterprise Lacks Alignment

Readiness shortfalls can be seen in every Military Service. GAO reports for several years have documented critical readiness issues. Factors such as 17 years of war and the effects of the Budget Control Act of 2011 (resulting in sequestration) have led to the readiness state decried by the Service Vice Chiefs in their recent testimony before Congress.[46]

Sustainment issues were highlighted by USD(A&S) Ellen Lord when she said, "sustainment costs for the F-35 are unaffordable."[47]

In implementing the Goldwater–Nichols Act of 1986, development and procurement were separated from sustainment within DoD. One of the principle intents of this legislation was to clearly reassert civilian control of the military. An unintended consequence, however, was a disenfranchisement of the sustainment community.

Background

DoD must be able to immediately counter multipronged, sustained threats, yet the current logistics and sustainment system lacks the agility needed to do so. For decades, product support and sustainment

[46] Statement of General Stephen W. Wilson, Vice Chief of Staff, U.S. Air Force, before the Senate Armed Services Subcommittee on Readiness and Management Support, February 14, 2018, accessed January 4, 2019, https://www.armed-services.senate.gov/imo/media/doc/Wilson_02-14-18.pdf.
[46] Statement of Admiral William F. Moran, Vice Chief of Naval Operations, U.S. Navy, before the Senate Armed Services Subcommittee on Readiness, accessed January 4, 2019, https://www.armed-services.senate.gov/imo/media/doc/Moran_02-14-18.pdf.
[46] Statement of General James C. McConville, Vice Chief of Staff, U.S. Army, before the Senate Armed Services Subcommittee on Readiness, accessed January 4, 2019, https://www.armed-services.senate.gov/imo/media/doc/McConville_02-14-18.pdf.
[46] Statement of General Glen M. Walters, Assistant Commandant, U.S. Marine Corps, before the Senate Armed Services Subcommittee on Readiness, accessed January 4, 2019, https://www.armed-services.senate.gov/imo/media/doc/Walters_02-14-18.pdf.
[47] "Pentagon 'can't afford the sustainment costs' on F-35, Lord says," Aaron Mehta, *Defense News,* accessed March 29, 2018, https://www.defensenews.com/air/2018/02/01/pentagon-cant-afford-the-sustainment-costs-on-f-35-lord-says/.

management have been secondary to development and procurement within the DAS. Military systems have remained in service far longer than originally planned. Maintaining required spares for postproduction systems has been challenging as the government and industry have placed higher priority on new acquisitions. This lack of attention to product support and sustainment management has led to degraded weapon system readiness, rising sustainment costs, and insufficient supply support, and in parallel created suboptimal conditions in maintenance training, maintenance publications, provisioning, and repair capability.

DAS is focused on program development and procurement and is governed by the APB. Weapon systems sustainment is funded and managed by the operational side of DoD. Separation of sustainment from development and procurement yields an approach to acquisition that focuses on technical solutions for a program, at the expense of balanced weapon systems sustainment throughout the lifecycle.

Existing regulations and policies establish reviews at each program milestone to ensure adherence to all aspects of defense acquisition. These reviews are supported by senior level staffs with expertise regarding the operational environment, requirements, and defense acquisition. Senior officials at levels equivalent to those for development and procurement—with the requisite expertise for product support management—are less represented. The system's focus on development and procurement, with an attendant lack of appreciation, expertise, and accountability for weapon systems sustainment can preclude needed discussion on the supportability aspects of a system at these milestone reviews.

Program funding flows from Congress to the Military Services through a variety of appropriations and is channeled not only to the program but also to siloed organizations that will ultimately support the product. This partitioning of program sustainment funding leads to an incomplete accounting of critical resources such as manpower, training, spares, engineering, depot repair, and support equipment.

With each element of the sustainment organization devising, constructing, and implementing its own data and metrics, contradictory objectives can arise. The result is an incomplete set of metrics and an inability to use shared data visible to all stakeholders and to provide a reliable indication of sustainment health for weapon systems or the overall condition of the capability portfolio within which the platforms reside.

The DME consists of the materiel systems and supply commands and the DoD industrial base that comprise product support and sustainment management for DoD. Membership in this enterprise is not officially designated but is understood to mean everything and everyone associated with developing, procuring, storing, distributing, repairing, and supporting DoD's warfighting capability. It includes contracted support but, historically, industrial base assessments have not included the contractor element. This approach presents an incomplete picture of the DME's capacity.

Discussion

Several key shortcomings exist regarding sustainment management:

- There is a lack of alignment and governance of program sustainment cost, schedule, and performance over the entire lifecycle.

- The SAE staffs do not include sustainment professionals at an equivalent level of authority to the development and procurement senior staff and leadership.
- Key enablers for modern sustainment are missing across the enterprise.

Establish a Sustainment Program Baseline

The PM's focus during development and production is on meeting the APB's cost, schedule, and performance thresholds. The effects of these shortfalls and trade-offs are not generally realized until years later, after the successful milestone decision and following the tenure of the PM who made the decision. The DAS focuses more on ensuring the program is meeting the requirements of the APB and less on the ability to sustain the system in the future.

Warfighters receive weapon systems as a product of the DAS and depend on the sustainment system to provide the product support required for operational readiness of the weapon system. On average, approximately 72 percent of weapon systems lifecycle costs are in sustainment, yet there is no mechanism for coordinated governance of this critical operational program phase. The Section 809 Panel researched major defense programs and found the APB to be an effective tool for guiding, governing, and constraining the development and production of major weapon systems.

During design, alternatives are weighed for performance and affordability. The PM must balance these factors and make decisions that will affect supportability and sustainment costs, both of which are outside the APB constraints. Small design trade-offs rarely affect total lifecycle costs enough to cause a program cost breach. Programs typically do not fail a milestone or breach the APB because of underfunded or delayed product support.

During development and procurement, PSMs are planning for and engaged in activities that will provide for the effective sustainment of the system after fielding. Critical product support milestones occur after the APB's final milestone review: the FRP decision. Critical sustainment milestones such as the material support date (MSD) and depot stand-up require planning, coordination, and funding years in advance of fielding, but they fall victim to design trades and budget reallocations to meet performance needs. Accordingly, early funding for sustainment investments is at risk because it is used as a source to fund development cost growth.

Despite efforts to increase visibility of design decisions affecting product support requirements, when technical or budgetary challenges arise during development and procurement, PMs have at times been forced to trade off programs' future (outside the APB) to solve a current problem (inside the APB). The consequences of these deferrals and trade-offs are not realized until years later, after weapon systems are fielded and milestones completed. Decisions on program requirements, performance, and configurations made early in the acquisition process will largely determine a system's Operating and Support (O&S) costs, and opportunities to reduce or avoid O&S costs diminish as a program advances through the lifecycle.

KPPs and key system attributes (KSAs) for system lifecycle management are being included in program APBs; however, once a program has passed Operational Test and the FRP milestone decision, the APB is no longer a strong motivator for the PM or RM (A8/G8/N8).

PMs are responsible for the program's development and procurement and have the authority, autonomy, tools, and funding to manage to the parameters specified in the program's APB, which is approved by the resource manager, MDA, and the PM. DAS is program-focused with the following characteristics:

- It is a highly complex system of systems with one primary governing program document: the APB.
- There are clearly defined and accountable officials: the PM, the MDA, and the resource manager.
- Funding streams are directed to the program per APB thresholds.
- Programs are *strongly* managed, funded, and measured to specific outcomes: Operational Test and Evaluation and FRP.
- Program success is measured by meeting APB thresholds and achieving milestone approval.
- The organizations' objectives, metrics, and funding are focused on program success.

In post-production, the PM and PSM are responsible for sustainment, but do not have sufficient authority, requirement, or funding to successfully manage the independent product support elements amongst the sustainment silos. With rare exception, there is actually no one individual truly responsible or empowered to manage a program's sustainment for operational readiness; no single official is held accountable for readiness shortcomings. Some of the challenges within the sustainment system include the following:

- The system includes process-focused sustainment silos that are *not* program-focused.
- It is a system that is *not* managed, funded, or measured by the outcome: program readiness.
- There are multiple funding streams to independent organizations without regard for program readiness requirements.
- Organization objectives, metrics, and funding are self-reflecting.
- It is a highly complex system of systems consisting of disconnected sustainment silos.
- There is no accountable official for programs' readiness.

The following are significant challenges in the acquisition and sustainment systems:[48]

- Product support is a low priority and often becomes the funding source for unplanned program shortfalls, because there are no consequences for the PM or the program under the APB.

[48] Information gathered during Section 809 Panel Sustainment Workshops, February–March 2018.

- Supportability KPPs and KSAs are not well used during weapon system design and are not measured or evaluated during the sustainment phase.
- The sustainment system is a collection of independent and specialized organizations that lack governance and accountability for the weapon systems readiness it supports.
- The acquisition system is program focused and governed by the APB.

Program officeslack appreciation of the effects of delaying sustainment planning. Issues that were consistently expressed by subject matter experts (SMEs) include the following:

- Resources for product support and sustainment planning were not allocated and controlled early in the development process.
- Funding requirements for minimum capability for product support and maintenance were ill defined.
- Warfighters were not sufficiently engaged to address product support and sustainment requirements.
- Government and industry were not aligned regarding product support planning, incentives to improve reliability and maintainability, and sustainment.

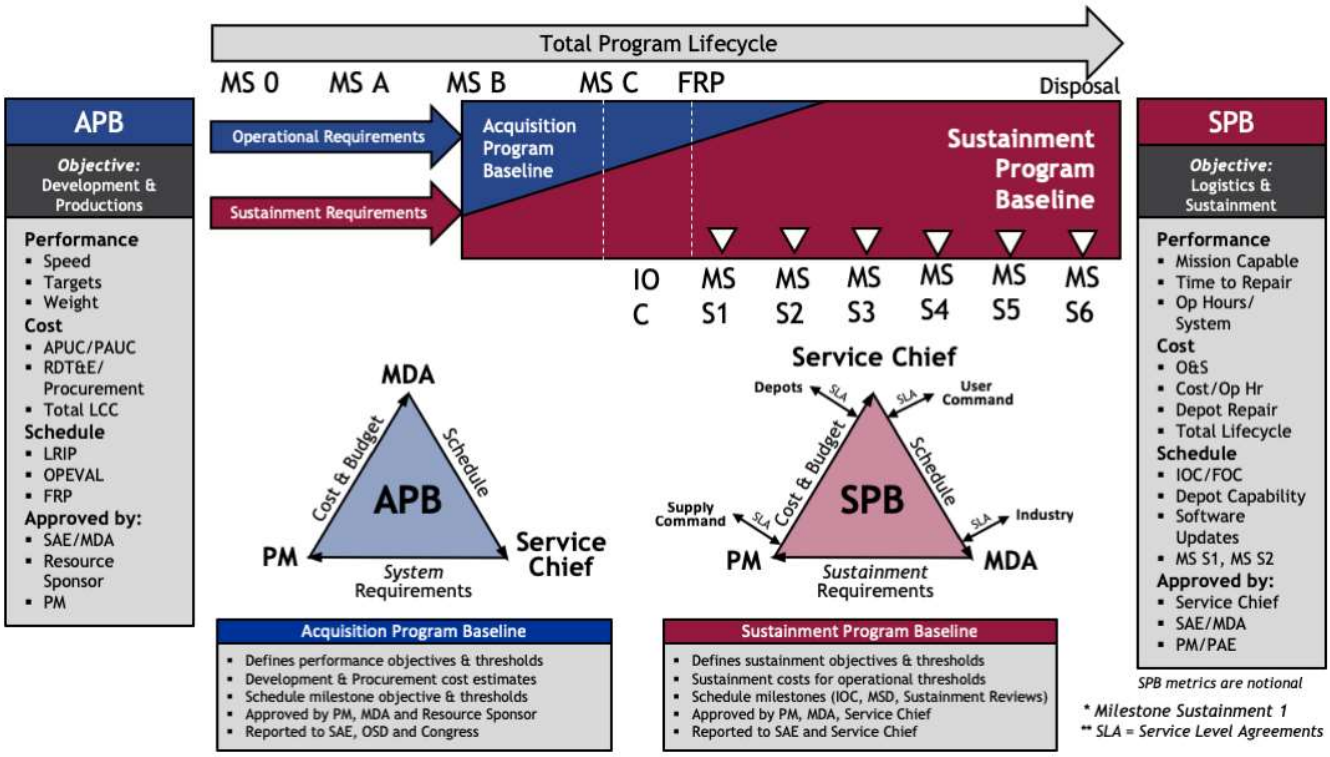
SPB would improve the current shortcomings outlined in both the acquisition and sustainment systems that are affecting both operational costs and readiness. The SPB would be the governing document for product support and sustainment over the entire program lifecycle. The SPB would have the same three stakeholders as the APB: the PM, the resource sponsor, and the MDA—facilitating a long-term commitment that will enhance readiness.

The SPB in Development and Procurement

The SPB would be generated during concept exploration and consider the key cost and readiness drivers that would influence trade-off considerations. During this early phase, sustainment goals could include annual operating costs, security, maintainability, transportability, mobility, availability, personnel, and the support and repair concepts. The APB would remain the key document during development and production. The importance of the SPB would increase over time. The relationship between SPB and APB is depicted notionally in Figure 2-16.

The SPB would mature with the program and product development. Sustainment performance requirements would start out as estimates and be further refined through the course of a program. As the strategy, costs, and performance parameters of the program's plan for sustainment evolve, the SPB would capture the critical parameters to govern the program's sustainment strategy after FRP. The budget and funding for *all* product support requirements and lifecycle costs would be identified in the SPB to reflect the strategy, plans, and milestones outlined in the lifecycle sustainment plan (LCSP). The critical product support milestones from the LCSP would be reflected in the SPB. The APB and SPB would be reviewed and approved at program acquisition milestones.

Figure 2-16. Sustainment Program Baseline in the Acquisition Lifecycle



The SPB During Sustainment and Disposal

As the program support concept matures, the SPB would provide the PM and PSM with the authority to govern the product support requirements, funding, and performance of the program in the sustainment system. As shown in the diagram above, the PM would develop service-level agreements (SLAs) with the product support providers. SLAs would be binding agreements between the organizations outlining requirements, funding, and performance outcomes to achieve the thresholds in the SPB. SLAs should be updated annually with 5-year forecasts.

After FRP, the SPB would be updated, reviewed, and approved biennially for the remainder of the program's lifecycle by the PM, MDA, and resource sponsor at the sustainment program milestone. A breach to the SPB thresholds for cost, schedule, or performance would be reported to one level above the stakeholders within 30 days.

The SPB would capitalize the value of early sustainment planning, devise budgets to support the necessary planning, and integrate the cost, performance, and accountability of a program throughout the lifecycle.

Incorporating both the APB and SPB into program development and production provides the needed transparency, outcome-based results, and full accountability for the PM to manage the program across the entire lifecycle. This approach is applicable in the current PEO structure as well as the portfolio management construct.

Although creation of this document adds to the program office workload, the value it adds in establishing early sustainment performance goals and protecting sustainment funding offsets the additional effort. Because sustainment funds are often used as a source of MR, the SPB may also be viewed as limiting the PM's flexibility to move funding to address emerging issues. The document would force a contract with the key program stakeholders that would prevent outside agencies from raiding program funding. By ensuring the stakeholder network is involved in funding allocation, the program would also benefit from added influence and support to replace reallocated sustainment funding should it be necessary to move those funds to address an emergent development or production need.

Establishing and maintaining the SPB would improve governance and management of programs' product support and sustainment by doing the following:

- Developing sustainment performance requirements that influence design.
- Balancing trade-offs between development, production, and sustainment.
- Protecting requirements and funding that impact future readiness and sustainment costs
- Empowering the PM to manage sustainment to the SPB cost, schedule, and performance thresholds through SLAs with product support providers.
- Enabling and instituting governance and accountability of weapon system sustainment and readiness.

Elevate Sustainment

Better management of product support should start with mandating that the PSM be a direct report to the PM. Establishing a PSM position was intended to bring product support and sustainment experience and expertise to the upper management levels of the program office. Although the PSM roles and responsibilities are clearly defined, no specific resources are identified to support these efforts. Having the PSM as a direct report to the PM would signal to the entire program office the importance placed on sustainment management.

Elevating sustainment would also require a larger and more experienced staff within the PAE organization. The deputy PAE for sustainment would lead a team of product support experts who would provide guidance for individual programs and oversight of the entire portfolio. They would be the first level advisors for the PAE making trade-off decisions to achieve portfolio objectives.

At the SAE level, a deputy for sustainment would lead senior product support and sustainment experts who would be advocates for successful sustainment decisions throughout the acquisition process. The sustainment deputy would guide the Military Services' strategy and governance of sustainment and also advise the SAE on sustainment. They would also provide inputs for both the PAE and ECP regarding sustainment.

Key Enablers for Modern Sustainment are Missing

A number of key enablers are absent from the sustainment system:

- There is no stable funding for sustainment planning and execution that is budgeted at the program level and then directly controlled by the PSM.
- Contractual vehicles do not incentivize key partners to meet long-term sustainment goals.
- IP and data rights are not appropriately addressed.
- O&S cost modeling is inadequate.

PMs have historically been forced to make design trades-offs, favoring operational requirements early in a program's lifecycle and consuming resources that would otherwise have been used to cover sustainment needs. PMs favor technical requirements over sustainment planning in the early stages of a program. Technical issues are not clearly understood until design work can be completed and sustainment planning impacts will not be seen until years later. There are no sustainment requirements in either the APB or the acquisition strategy that must be fulfilled prior to each milestone decision.

The PSM must compete for program funding to achieve appropriate levels of sustainment planning and performance. Funding is often provided only in the year of execution, further hampering the PSM's ability to establish long-term strategies to improve sustainment performance or incentivize lifecycle cost reductions.

Sustainment Funding

Sustainment is often allocated Operations and Maintenance (O&M) funding that expires each year. Solving obsolescence issues, particularly for avionics parts, is constrained by real or perceived regulations or polices that govern the funding source. With rapid technology advances, the capability of replacement avionics, as well as other categories of components, usually exceeds that of the item it is replacing. Because replacement technology typically increases speed, throughput, or some other aspect of performance, it is perceived as adding functionality. This perception often drives procuring agencies to determine that R&D funds are required to counter the obsolescence, adding unnecessary time and complexity to the sustainment process. Without budgeted resources, identifying funding to correct obsolescence becomes exacerbated by short response time.

Interpretation of the regulations and policies governing obsolescence has been incorrect.[49] A research project initiated by DAU, in conjunction with Hacking 4 Defense (H4D), showed that procurement activities were using an interpretation fostered by an incorrect application of the Financial Accounting Regulation regarding *capability improvements* resulting from redesigns due to obsolescence issues. Interviews with more than 100 individuals throughout the acquisition community revealed that an incorrect interpretation had been circulated throughout DoD. DAU and H4D investigated the

[49] Information gathered during Section 809 Panel Sustainment Workshops, February–March 2018.

regulations and policies, finding them essentially silent on this matter, and recommended a new training element quickly disseminate the correct information and updates to the regulation.

The variety of funding sources (commonly called color of money issues) and expiration periods applied create sustainment issues as well. An example of why the potential for confusion exists can be found in funding for spare parts. Spare parts may be considered provisioning, replenishment, depot-level repair, or obsolescence. Spares for provisioning may be purchased through a program office with procurement funds for initial sparing. Replenishment may constitute additional purchase of spares or depot-level repair may be executed to support replacement of worn or damaged parts. Obsolescence may result from failure in reliability or diminishing manufacturing sources. Each of these possibilities could require funding by a different appropriation, with each funding source governed by a different expiration period.

Financial Management Regulations (FMRs) can be confusing, arcane, and subject to interpretation, as in the obsolescence example above. The result is delayed decision making and lack of agile support to warfighters. Asset visibility is also affected. Long-term contracting is impeded, which inhibits depot maintenance organizations (both organic and commercial) from developing well established relationships with suppliers.

IP and Data Rights

Program management has not addressed the IP issue in sustainment adequately.[50] PMs and PSMs share responsibility for ensuring weapon systems receive appropriate and competitive component repair. To maintain competition throughout the lifecycle, data rights and IP—as applicable to both hardware and software—must be addressed up front. Obtaining IP and data rights has become a complex issue for most major programs, resulting in dissatisfaction within both the organic and commercial depot organizations. Data rights and IP should be made available when needed, where needed, and for the specific purpose needed while also protecting the IP and data rights of industry partners.

Software Sustainment

Organic software sustainment is determined by platform requirements. There is no organic software sustainment strategy today, and considering the rapidly evolving nature of software development and maintenance tools, the government needs to increase attention here. The complexity of acquiring data and data rights regarding commercial products, incorporated into either purpose-built or hybrid platforms, requires development of policy, regulations, and statutes. The government should leverage the strengths of both organic and commercial software organizations in this effort.

Depot Maintenance

Little knowledge sharing occurs among the Military Services and between organic depot organizations and commercial maintenance, repair and operations (MRO) facilities. Differences in execution of sustainment support among the Military Services do not promote active sharing of ideas, methods, and technologies. The degree of sharing is driven by personal relationships. Organic depots and

[50] Richard Van Atta et al., *Department of Defense Access to Intellectual Property for Weapon Systems Sustainment,* IDA Paper P-8266, May 2017, Institute for Defense Analysis (IDA), accessed May 30, 2018, https://www.ida.org//idamedia/Corporate/Files/Publications/IDA_Documents/SFRD/2017/P-8266.pdf.

commercial MRO facilities consider themselves competitors; consequently, knowledge sharing regarding repair methods, tooling concepts, and processes is rare. Successful programs find ways to overcome these obstacles, but responsiveness was forced by the program office rather than incentivized through appropriate contract vehicles. An example of this is the F-22 program for which specific expertise to support depot level repair at an organic depot is supported by manpower detailed by the original equipment manufacturer (OEM).

Metrics and Data Analytics

SMEs have identified several shortfalls in metrics:[51]

- Tools to enable model-based engineering for sustainment are needed.
- Total lifecycle analysis tools are needed, such as better tools to model reliability and maintainability, determine optimum product support, forecast demand profile, and perform predictive manpower analysis.
- Model-based engineering is used extensively during development. Modeling of sustainment to include such items as transportation, deployed repair capability, and manpower are seldom used.

Reliability estimates are calculated during proposal development and are measured during technical maturation. Actual reliability seen in combat operations is often substantially different from the early estimates or even measurements taken in a laboratory environment. Maintainability is judged during technical evaluation through a maintenance demonstration. Results may not be representative of the final delivered product. Tools that allow modeling of reliability and maintainability characteristics would allow identification of the effects of early development decisions. For example, a model that included the required maintenance-free operation time following deployment would drive reliability and provide assessment of the time required to deliver deployed repair capability to a combat theater of operations. Predictive manpower analysis tools, applied early in the development phase, would provide lead time for training and documentation requirements to be established and appropriate planning, budgeting, and forecasting applied.

Demand signals provided to repair activities (whether organic or commercial) drive investments in training, tooling, manpower, and spare parts availability. SMEs from both organic facilities and industry spoke about the demand signal quality, which can impede execution of depot-level repairable (DLR) actions.[52] Tools providing visibility of demand signal to all stakeholders are not in place. Reports regarding metrics within the organic industrial base are replete with recommendations and suggestions for improvements. Although some recommendations and suggestions have been adopted, the current readiness state indicates that more can be done.

Use of predictive analytic tools is in its infancy within DoD but widely used by industry. Data from each Military Service is controlled, stored, and manipulated internally. Each DME element has its own

[51] Information gathered during Section 809 Panel Sustainment Workshops, February–March 2018.
[52] Ibid.

information technology department, but there has not been a requirement for them to be interoperable or for the data to be collectively warehoused. Efforts to compile all the data, collectively analyze it, and make decisions at the DoD level requires numerous data calls, manual information transmission, and considerable time.

O&S costs equate to 42 percent of the FY 2019 DoD budget request, more than double the investment in research and procurement. Whether funding is being applied correctly must often go unanswered for lack of effective data analytics.

Improve Focus of Defense Materiel Enterprise on Weapon System Readiness

The DME's lack of focus regarding weapon system readiness is manifested in four key areas:[53]

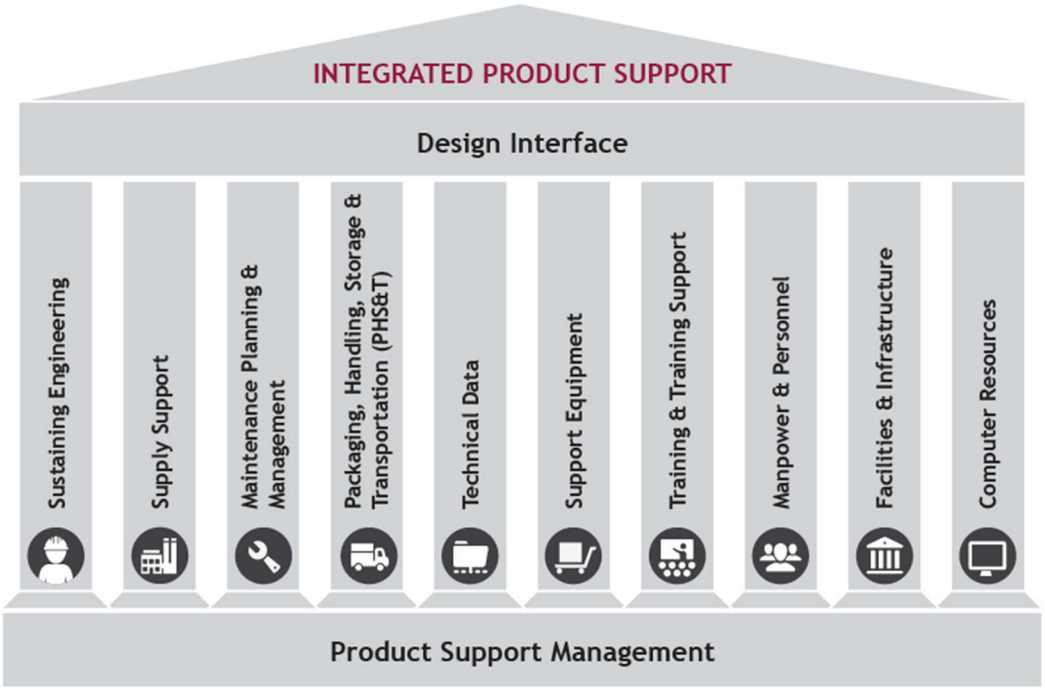
- Product support provided by individual, internally focused organizations in the DME to weapon system readiness does not receive the attention or visibility needed.
- PMs have little insight regarding decisions made by suppliers of the various product support elements and have little opportunity to influence these decisions or to assess the impacts in a timely manner.
- Total industrial capacity and capability has not been assessed in many years.
- Overall depot maintenance strategy is not aligned to the NDS.

Product Support

Product support organizations in DoD are focused on single elements such as manpower, training, systems engineering, mission software, depot repair, spares and consumables, or technical publications, as shown below (see Figure 2-17). Operating in sustainment silos, these organizations tend to make independent decisions based on anticipated outcomes beneficial to the organization without regard for requirements, budgets, funding levels, or readiness effects. The system lacks a controlling mechanism for the required output—weapon system readiness. When isolated mandates, such as military end strength, are issued, the down-stream effects of such decisions are felt throughout the defense sustainment system for years. Weapon system sustainment requires a system-of-systems approach to plan, manage, and control the interdependencies of the product support elements contributing to a program readiness. Figure 2-17 depicts the product support elements, each of which is funded differently, operates on metrics with little or no direct correlation to readiness, and is internally focused rather than outcome focused.

[53] Ibid.

Figure 2-17. Product Support Elements



SMEs repeatedly described situations in which organizations within the integrated product support elements either executed or failed to execute decisions based solely on their own internal policies, direction, or even personal biases without regard for the effect on readiness.[54] An example is the anecdotal information provided by one PSM who stated that a supply-chain element failed to initiate a contract for replacement spares for an item that was rendering a number of his platforms non-mission capable (NMC).[55] When he investigated, he determined that a key contract was being withheld over a negotiation on allowable profit regarding a 1 percent difference in price for a piece-part worth less than $1,000. Further research found a number of platforms had been declared NMC awaiting resolution of a price difference measured in tens of dollars. This put weapon system readiness in jeopardy when a premium to a contractor or supplier could have quickly resolved the problem and met warfighter needs. (See the panel's recommendation on value analysis in Recommendation 38.)

Program Manager Insight Regarding Product Support

One stakeholder held up the USAF model as a positive example of product support.[56] This model depicted a feedback mechanism from the sustainment enterprise to the Program Management Office (PMO). The USAF model resulted from a reorganization that provides periodic program reviews by all levels of the acquisition system—from the SAE, PEO, PMO, Systems Commands, and warfighters. Other stakeholders indicated the USAF model should be replicated in the other Military Services.[57]

[54] Ibid.
[55] Ibid.
[56] Ibid.
[57] Ibid.

A governance process that is inclusive of stakeholders, is transparent in intent and purpose, and allows for Military Service-level redistribution of funds to address emerging needs while ensuring program needs are considered would be a step toward better sustainment management. Failure to better manage and invest in product support has a two-fold effect: It increases future operations costs and reduces funds available to invest in new capabilities and recapitalization.

Total Industrial Capacity and Capability

With respect to maintenance, total industrial capacity of the United States has not been accurately assessed in many years. Depot maintenance capacity, to include both commercial and organic organizations, is not aligned to the NDS because there has been no requirement to do so. Organic depot maintenance organizations are generally aligned to the needs of the Military Service they support, except in rare cases in which Military Services have agreed to satisfy joint needs. Commercial depot maintenance organizations are profit motivated but have more flexibility to respond to changing requirements. Lack of a complete industrial capability and capacity assessment and determination of overall required capacity has resulted in duplication of capability in some areas and gaps in others. For example, each Military Service addresses the issue of diminishing manufacturing sources and material shortages (DMSMS). The Army and Air Force their own respective unique software tools. The Navy has distributed capability across five different organizations.

Depot Maintenance Strategy

10 U.S.C. § 2464 requires DoD to maintain core depot capabilities for key weapon systems sufficient to support expansion for wartime operations. 10 U.S.C. § 2466 places a 50 percent limitation on the funds made available to Military Services or Defense Agencies that can be used to contract for performance by nongovernment personnel, commonly known as the *50/50 rule*. Up to 50 percent of the total depot maintenance budget is thus an entitlement for the government maintenance organizations. Throughout its history, 10 U.S.C. § 2466 has been changed several times to ensure a balance between organic depot funding and contracted performance to optimize efficiency of the overall repair network.

Organic depot maintenance remains an important capability. During World War II, IP developed by one company was often handed over to another company to enable increased production rates. Modern weapons systems have become so complex that rapidly increasing productions rates in this manner would be nearly impossible for many reasons, including time. International conflicts are now more often a *come as you are* evolution. Organic depot maintenance has evolved from a manufacturing capability to MRO capability. Title 10 requires an organic depot capability to provide surge capacity but primarily for component repair to support already fielded equipment.

Some older industrial capabilities are not available through industry or are sufficiently critical that a government source must be maintained. For example, the major producer of gun tubes for cannons, mortars, and tanks for the Army is Watervliet Arsenal. Similarly, the primary producer of arresting gear for use aboard Navy aircraft carriers is at Lakehurst, NJ.

Conclusions

DAS is focused on the development and production of weapon systems and governed by the APB. This system has governance and controls to manage the cost, schedule, and performance required. The sustainment of DoD's weapon systems, which accounts for more than 70 percent of weapon system

lifecycle costs, lacks the required governance and accountability, and is a system of independently operated silos that compete for limited dollars. DoD's sustainment system lacks the alignment of investments, enablers, data, metrics, and management to enable affordable and effective weapon system readiness.

Implement a Sustainment Program Baseline

Improving weapon system readiness will require implementing the alignment, governance, and visibility of the sustainment costs, requirements, and funding over the entire lifecycle, to enable the development, execution, and support of the system's operational readiness, directly managed by the PM and the PSM as approved by the SPB. The PM must be aware of and able to directly influence decisions regarding the program by other elements of the Defense Materiel Enterprise. To address this issue, the following should occur:

- Establish the PM as the single responsible authority for ensuring material readiness to the established requirements in the SPB.
- Require the SPB for all program acquisition milestones and biannually after Milestone C.
- Align funding, requirements and expectations for provider organizations to execute the sustainment strategy to improve, obtain, and monitor weapon system readiness through service provider agreements.

Elevate Sustainment to an Equal Standing with Development and Procurement

Changes in the existing organizational structures are needed throughout DAS to enable sustainment to gain the visibility and stature afforded to development and procurement. Such change will require strengthening the authority of sustainment officials from the SAE to the program office.

The PSM needs to be a direct report to the PM and part of the PAE's organization. Empowerment and appropriate incentives for the PM and the PSM can be accomplished by making changes that provide stable funding and having the PSM become a direct report to the PM. This action would highlight the importance of sustainment management to the entire program office.

Equally important is having sufficient expertise and authority in the PAE and SAE organizations to ensure implications of program and enterprise decisions that will affect sustainment of a program going through decision reviews will be understood. To address this concern, the following should occur:

- Establish sufficient expertise on the PAE staff to facilitate and govern product support and sustainment decisions across the portfolio.
- Establish expertise on the SAE staffs with the necessary knowledge and sufficient authority to provide inputs for both portfolio- and enterprise-level decisions regarding sustainment within the Military Services and across DoD.

Key Enablers are Required to Improve Sustainment Management

Enablers for sustainment management are needed to improve the information, modeling, and metrics used across the defense enterprise to manage this extremely complex and costly system. To address this concern, the following should occur:

- Implement improvements in cost modeling for sustainment. Decisions made within the first 30 percent of development and procurement determine 70 percent of the lifecycle cost. Establishing a SPB early and allowing the PSM to drive sustainment costs through reliability and maintainability improvements during design will create long-term benefits.
- Prescribe and allow programs to budget for obsolescence. Tools for predicting obsolescence, particularly in electronic components, are readily available. Ensuring programs have properly estimated and budgeted for obsolescence management will enable proactive planning and response to this issue faced by all programs.
- Promote knowledge sharing among organic depot maintenance activities and commercial MRO activities.
- Clarify statutes, regulations, and policies regarding sustainment funding. Training related to such clarifications will be needed to improve standardization, promote flexibility in interpretation, and provide more agile sustainment response to warfighters.
- Develop and use sustainment metrics and data analytics for cost estimating, modeling, and performance.

Align the DME to Strategic Weapon System Readiness

Current material readiness and sustainment costs are driven by the DME's structure and strategy decisions without established responsibility and accountability for desired outcome tied to readiness requirements. Changes to both the structure and strategy should be focused on increasing agility and flexibility of the system to provide better warfighter support. To address this concern, the following should occur:

- Develop an integrated national industrial-base strategy, encompassing both organic and commercial organizations, aligned with current NDS.
- Conduct an end-to-end material readiness process assessment to provide alternatives to improve the effectiveness, efficiency, and affordability of the overall system.
- Make organic depot determinations within the industrial base (organic and commercial), focused on warfighting requirements.
- Develop a DoD vision for the industrial base regarding organic and commercial technology to take best advantage of all capabilities.
- Develop a strategy for organic software engineering capability and requirements.

Implementation

Legislative Branch

- Direct DoD to implement an SPB to govern product support cost, schedule, and performance of the weapon system throughout the lifecycle. Require the development of an SPB—concurrent with the development of the APB—that is updated and approved at each program acquisition milestone and then biennially following FRP at the sustainment milestone reviews.

- Direct DoD to update and strengthen lifecycle cost estimating methodologies to support development of the SPB. Obsolescence affects all programs; proactive planning and requiring programs to budget for obsolescence would improve readiness.

- Direct DoD to propose specific changes to statutes to clarify sustainment funding that are needed to improve standardization, promote flexibility in interpretation, and provide more agile sustainment response to warfighters. Congress should also direct DoD to implement changes to update regulations and policies and conduct training related to the changes to statutes.

- Direct DoD to conduct and report to the congressional defense committees, an assessment of the defense sustainment enterprise to include balance of leadership attention among acquisition and sustainment, organizational structures, national industrial base, and alignment of DME to weapon system readiness and support of the NDS. The assessment should include the following: end-to-end material readiness process assessment to provide alternatives to improve the effectiveness, efficiency, and affordability of the overall system. The industrial base strategy should do the following:

  - Encompass both organic and commercial organizations in the national industrial base.
    - Right size and composition of the industrial base regarding organic and commercial technology to take best advantage of all capabilities in view of the NDS.
  - Focus depot determinations within the industrial base (organic and commercial) on warfighting requirements.
  - Tie accountability for outcome to readiness requirements.
  - Maintain DME agility and flexibility for warfighter support.
  - Include other activities and/or entities as identified to provide a full and accurate assessment of the defense sustainment enterprise.

Executive Branch

- Elevate sustainment to an equal standing with development and procurement by adequately funding, manning, and overseeing sustainment in accordance with the recommendations of the panel.

- Improve sustainment management through key enablers.

  - Improve the data and information, modeling, and metrics across the defense sustainment enterprise to manage this extremely complex and costly capability. To address this concern, the following focus areas require attention:
    - Employ cost modeling for sustainment being mindful of the fact that decisions made within the first 30 percent of development and procurement determine 70 percent of the lifecycle cost.
    - Develop a strategy for organic software engineering capability and requirements.
    - Create long-term benefits by ensuring the PSM drives sustainment costs through reliability and maintainability improvements during design.
    - Establish an SPB early.
    - Share knowledge promptly among organic depot maintenance activities and commercial MRO activities.
    - Maintain sustainment metrics and data analytics for cost estimating, modeling, and performance.

- Address the following in DoD and Military Service/Agency directives and instructions:

  - Policies and processes to implement enhanced sustainment management per statutory requirements.
  - SPB as the baseline requirements document for funding and staffing sustainment activities.
  - Sustainment billet structures across DoD appropriate to challenges of the sustainment enterprise.
  - Sufficient expertise on the PAE staff for product support and sustainment.
  - Management of programs to the thresholds in the SPB and development of service provider agreements with major stakeholders.
  - Empowerment of the PM, with direct input from the PSM, to manage the sustainment of the program from cradle to grave, through the SPB.
  - Situating the PSM as a direct report to the PM.

- Empower the PSM to develop and execute the lifecycle sustainment plan to meet the cost, schedule, and performance requirements of the SPB.

- Incorporate above Executive Implementation recommendations in revision to DoDD 5000.01, The Defense Acquisition System and operating instructions.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 2.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 42: Reduce budgetary uncertainty, increase funding flexibility, and enhance the ability to effectively execute sustainment plans and address emergent sustainment requirements.

Problem

Budgetary uncertainty and limited funding flexibility have hampered the ability to effectively execute sustainment plans and address emergent sustainment requirements. DoD sustainment suffers for the following reasons:

- Sustainment is underemphasized in the lifecycle cost estimate (LCCE) during program planning.
- Trades are made during early phases of development that could negatively affect the program in the sustainment phase.
- Sustainment receives inadequate attention in the early acquisition phases.
- The sustainment phase lacks adequate planning, programming, and budgeting.
- Decisions are made by higher authority in response to emergent requirements.
- Ambiguity in DoD financial regulations causes sustainment requirements to be budgeted in the wrong appropriation account.
- Programs cannot be supported because funding in the correct appropriation is not available during execution years.
- Sustainment requirements budgeted in an O&M appropriation are affected by the availability of funding when they are needed in execution year.

Background

In the defense acquisition community, several terms are used to refer to the costs associated with maintaining weapons systems. It is a common mistake that the acquisition community believes that O&S and the appropriation O&M are interchangeable, but they are not. There is also a misperception that all O&S activities are only funded with the O&M appropriation and that is not true either.

O&M is a category of appropriations accounts enacted by Congress each year as part of the annual defense appropriations law. O&M funds *some* of O&S functions but not all of them. O&M appropriations also provides funding for some civilian employee salaries; military base operations to include utilities, security, and building maintenance and repairs; medical care; IT infrastructure; recruitment activities; training; and other needs.

O&S refers to the category of *costs* that are used for program sustainment. O&S is not a standard part of appropriations law, but is referenced in law and DoD policy. DoD is explicitly required to collect data

on O&S costs, but there is no reference to operating and sustainment in 10 U.S.C. § 101, Definitions.[58] The DoD D/CAPE defines O&S costs as those for "personnel, equipment, supplies, software, and services associated with operating, modifying, maintaining, supplying, and otherwise supporting a weapon system in the DoD inventory."[59] These costs can be funded with O&M, Research, Development, Testing, and Evaluation (RDT&E), or Procurement appropriations.

Sustainment refers generically to the process of keeping a weapons system or other technology in good working condition. For many complex or technologically advanced systems, sustainment represents the largest single portion of the total cost over the life of the system. Again, these activities can be funded with O&M, RDT&E, or Procurement appropriations.

Cost Categories

The total cost of a DoD acquisition program varies depending on the definition of *cost*. The *procurement cost* of a program refers to the amount expended from the procurement appropriation account for prime mission equipment, support items, and initial spares. *Program acquisition cost* refers to the combined procurement cost; research, development, and testing cost; and military construction costs. Program acquisition cost can also include some O&M costs, referred to as *acquisition O&M*. The *lifecycle cost* consists of the program acquisition cost, operating and support costs, and disposal cost. The operating and support cost and disposal cost are generally funded from the O&M appropriation accounts.

Former USD(AT&L) Frank Kendall includes lowering lifecycle cost among 10 principles for achieving better buying power in DoD. Kendall wrote that "controlling life-cycle cost is one of our jobs; staying on budget isn't enough," and warned against "poor decisions that result in short-term savings at the expense of high long-term costs."[60]

Underemphasis on Lifecycle Cost

With respect to the cost thresholds, these different definitions are important because they affect whether or not programs experience Nunn–McCurdy breaches.[61] If a program's per-unit procurement cost or program acquisition cost exceeds certain thresholds, the program faces termination.[62]

The fate of programs can depend on both procurement cost and program acquisition cost—but not lifecycle cost. Although deferring costs into the longer term may in some cases be the most effective way of managing initial investment costs and enabling the program to continue, by keeping the program within cost thresholds, that decision may push costs out of the developmental and production phases and into the sustainment and disposal phases of a program's lifecycle.

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[58] Guidance on Life-Cycle Management, 10 U.S.C. § 2337a.
[59] Office of the Secretary of Defense – Cost Assessment and Program Evaluation, *Operating and Support Cost-Estimating Guide*, March 2014, 2-3, accessed September 10, 2018, https://www.cape.osd.mil/files/OS_Guide_v9_March_2014.pdf.
[60] Frank Kendall, "Better Buying Power Principles: What Are They?", *Defense AT&L*, January-February 2016, Principle 4, accessed November 6, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/1016057.pdf.
[61] *Nunn–McCurdy breach* refers to 10 U.S.C. §§ 2433 and 2433a, which specify that if a program's unit costs exceed certain thresholds, the program in question must be terminated unless the Secretary of Defense certifies that it is essential to national security.
[62] Percentage growth thresholds are based on both cost definition and time period in which projections were made.

Literature on Lifecycle Cost

Several organizations have published documents assessing the possibility of making total lifecycle costs—particularly sustainment costs—a greater factor in program decision making. MDAPs are already required to provide a *full lifecycle cost analysis* in their Selected Acquisition Reports to Congress, but this analysis does not factor into Nunn–McCurdy cost breaches.[63]

GAO last updated its *Cost Estimating and Assessment Guide* in 2009, so its conclusions may be somewhat outdated. The document notes that:

> *"DOD starts more weapons programs than it can afford, creating competition for funding that encourages low-cost estimating and optimistic scheduling, overpromising, suppressing bad news, and for space programs, forsaking the opportunity to identify and assess potentially better alternatives. Programs focus on advocacy at the expense of realism and sound management."*[64]

A 2011 paper from the Software Engineering Institute decried the problems with accurately projecting the O&S costs of weapons systems. The paper noted that "the difficulty of accurate cost estimation is compounded by the fact that estimates are now prepared much earlier in the acquisition lifecycle, well before there is concrete technical information available."[65]

A 2014 MIT paper by an Air Force program manager showed that historically, actual lifecycle cost estimates for MDAPs exceeded their initially projected lifecycle costs by 20 to 506 percent. The paper's "Recommendations" section appeared to suggest incentives for analysts to adopt the rosiest-possible assumptions to justify low cost projections: "Department-wide assumptions should be set above the DoD Component level to ensure fairness in quantifying systemic cost risk for MDAPs."[66]

In 2014, DoD's CAPE office published a detailed analysis of the cost elements and estimation methodologies for program O&S costs. The analysis emphasized the difficulty of projecting O&S costs in their entirety, noting that for items such as indirect support and depot maintenance it was "difficult, if not impossible, to compare these costs to available funding."[67]

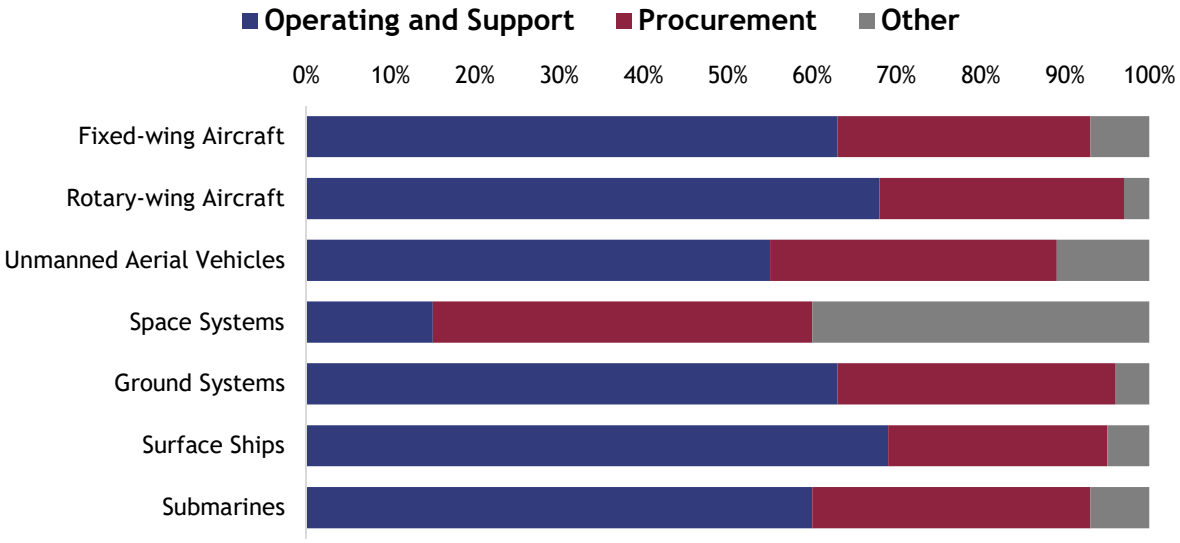
Lifecycle Cost Data

Past analyses suggest that for most major types of MDAP, O&S costs make up a large percentage of the lifecycle cost. According the 2014 CAPE analysis, space systems are the only exception (see Figure 2-18).

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[63] Selected Acquisition Reports, 10 U.S.C. § 2432(c)(3).
[64] GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs, GAO-09-3SP,* March 2009, 42, accessed June 29, 2017, http://www.gao.gov/assets/80/77175.pdf.
[65] Robert Ferguson et al., *Quantifying Uncertainty in Early Lifecycle Cost Estimation (QUELCE),* Software Engineering Institute, December 2011, accessed November 5, 2018, https://resources.sei.cmu.edu/asset_files/TechnicalReport/2011_005_001_15419.pdf.
[66] David Petrucci, *Improved Affordability in DoD Acquisitions through Strategic Management of Systemic Cost Risk,* Massachusetts Institute of Technology, February 2014, 90, accessed June 29, 2017, http://seari.mit.edu/documents/theses/SDM_PETRUCCI.pdf.
[67] Office of the Secretary of Defense – Cost Assessment and Program Evaluation, *Operating and Support Cost-Estimating Guide*, March 2014, accessed September 10, 2018, https://www.cape.osd.mil/files/OS_Guide_v9_March_2014.pdf.

Figure 2-18. Percentage of Program Lifecycle Cost Average for MDAP Categories[68]



For individual programs, O&S as a share of total costs can be even higher. According to an independent analysis prepared for the Marine Corps Deputy Commandant for Aviation, O&S accounted for roughly 80 percent of total H-1 helicopter upgrade program costs.[69] The high O&S costs associated with major programs suggest that if Congress and DoD wish to apply useful metrics to program review, those metrics must incorporate sustainment in some way.

Programs may also benefit from making the same stakeholders responsible for decisions and costs throughout each phase of a program's lifecycle. If a program office is responsible for initial acquisition costs but not sustainment costs, the office may face disincentives to increase up-front investment as a way of reducing long-term costs. DoD programs do not generally have a single stakeholder responsible for managing all O&S costs. There is no single source of O&S funding; this authority is fragmented among multiple organizations and appropriation line items.

Discussion

DoD spends billions of dollars annually to operate and sustain weapon systems. With the amount of dollars at stake, DoD has placed more attention on controlling total lifecycle costs with initiatives aimed at ensuring that weapon systems are not only affordable but effective over the long term. These costs include, among other things, repair parts, maintenance, and personnel. They have historically accounted for about 70 percent of total weapon system costs.[70]

[68] Ibid, 2-3. "Other" category consists of RDT&E and Military Construction funding.
[69] Joseph Dyer and Peter Williams, "Marine Light Attack Helicopter Independent Readiness Review," April 12, 2017, provided to Section 809 Panel.
[70] O&S costs are estimated to make up as much as 70 percent of the total lifecycle cost of DoD's major weapon systems. FY 2012 NDAA, Report 112-26 to accompany S. 1253, June 22, 2011.

Sustainment Programming, Planning and Budgeting

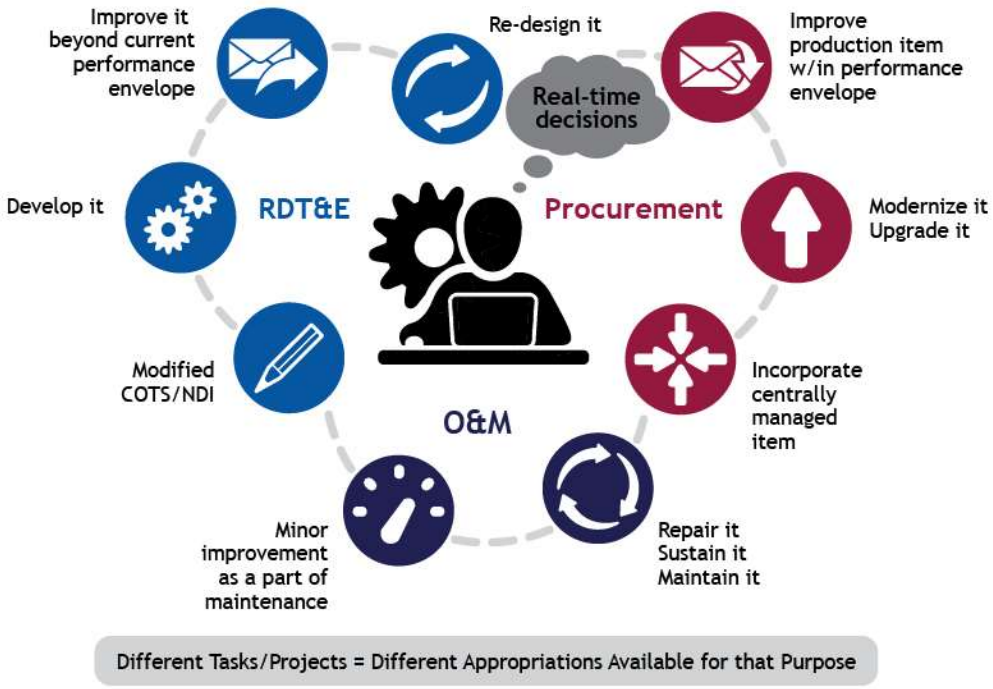
At present, programs do not always have sufficient funding flexibility for sustainment. Estimating sustainment costs frequently, budgeting for sustainment within appropriations will help address recurring sustainment issues. Sustainment requires a combination of RDT&E, procurement, and O&M funding to successfully execute the full range of lifecycle sustainment actions. Stable funding is key to successful execution and having funding of the correct type in place at the right time requires program offices to forecast, program, and budget accurately for sustainment.

Establishing an SPB, aligned with the APB, will enable the level of planning, programming, budgeting, and cost estimation necessary to enable DoD prioritization for funding. The sustainment cost estimate should be as definitive as possible, based on the information available at the time that it is made, and should be regularly refined and improved as more and better information becomes available. An SPB initiated during program development and matured and reviewed prior to each milestone decision would provide for the necessary forecast and oversight of sustainment funds, and also provide valuable insight into the effects on lifecycle costs of decisions made at the program, portfolio, and Military Service or operational employment level. Transparency of budget allocations would also allow program offices to establish long-term relationships with both commercial and organic depot facilities, enabling more efficient planning/execution of depot work and should lead to lower sustainment costs. These long-term relationships with suppliers will provide benefits to warfighters and the DoD.

Unclear Guidance on Appropriation Funding

Programming and budgeting for sustainment activities are further inhibited by issues with funding types, procurement restrictions and obligation expiration periods (commonly called *color of money* issues). Uncertainty about funding rules can inhibit programs by not adequately projecting funding requirements. There are three types of sustainment activities: product improvements, technical refresh and DMSMS, which includes obsolescence that have resource implications that affect what type of appropriation is used, driven by a determination of whether the cost is an expense or an investment. The DoD FMR describes several conditional circumstances on whether or not a cost is an expense or an investment. To further complicate the resource decision, an expense can be funded with O&M or RDT&E appropriations and an investment can be funded with Procurement, MILCON or RDT&E appropriations. Expense/investment thresholds also affect this determination. As depicted in Figure 2-19, the resource decision criteria described in the FMR leads to much confusion which impacts proper programming, budgeting and execution of sustainment activities.

Figure 2-19. Complexity of Product Support Strategy Funding[71]

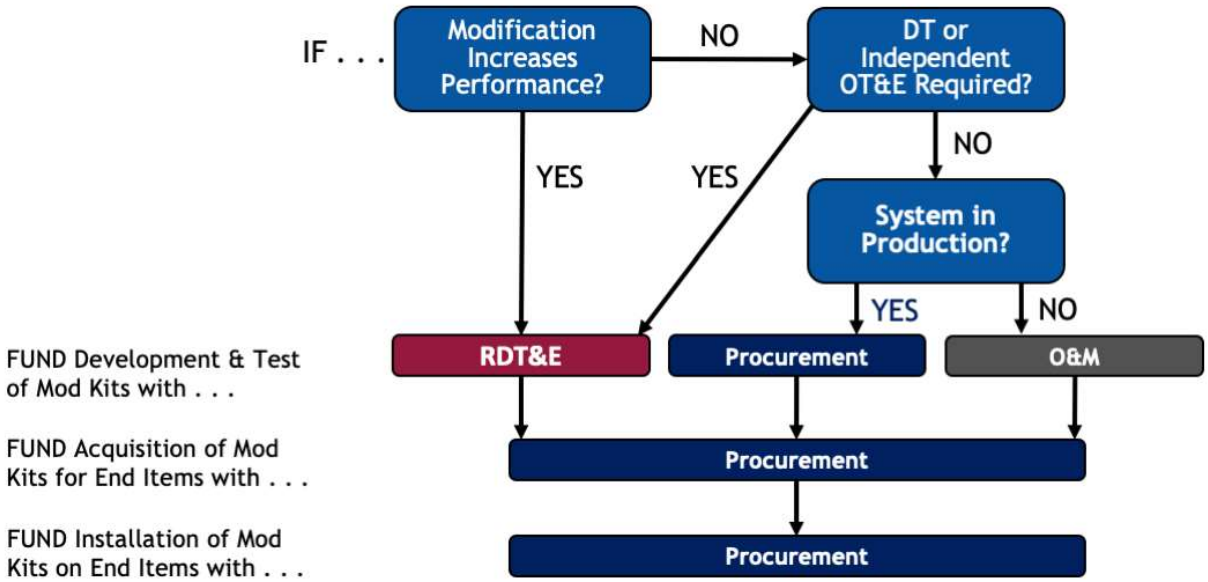


Realizing the confusion depicted in the graphic above and the product improvement graphic below, the Section 809 Panel reached out to DAU to use the Hacking for Defense methodology with a team of students to "develop a way for product support managers and program managers to budget and plan for obsolescence of parts and components of a weapon system."[72] "Through their discovery interviews and hypothesis testing, the team reframed the problem to be: "There is no clear DoD guidance on obsolescence."[73] The team specifically found that program managers and financial managers are misinterpreting the FMR with regard to obsolescence. Figure 2-20 was presented by DAU and has been used as a guideline by resource managers to help clarify FMR product improvement appropriation selection criteria, but has been applied for obsolescence and tech refresh requirements, too. The research team found situations in which a required component had gone out of production and a replacement component was available but also happened to provide a capability enhancement. In such cases, program managers and financial managers were asserting that the capability enhancement required RDT&E funding to finance the replacement component. This assertion may be a misinterpretation of the FMR. The misinterpretation causes program managers and financial managers to perform unnecessary workarounds to obtain RDT&E funding that the program has not been appropriated and could cause delays in delivering capability to warfighters. These costs and delays

[71] Figure adapted from "Department of Defense Product Support Manager Guidebook," release 2011, DAU, figure 12, accessed September 12, 2018, https://www.dau.mil/guidebooks/Shared%20Documents%20HTML/PSM%20Guidebook.aspx.
[72] David L. Gallop, PhD, *Defense Acquisition University (DAU) Hacking for Defense/Leading Innovation (H4D/LI) Pilot-2 Info Paper,* May 21, 2018, provided to Section 809 Panel, September 20, 2018. David L. Gallop, PhD, "In Innovation Insurgency: Hacking for Defense at DAU," *Defense AT&L Magazine,* May-June 2018, 2-7, accessed September 12, 2018, https://www.dau.mil/library/defense-atl/DATLFiles/May-Jun2018/DATL%20MayJune2018b.pdf.
[73] David L. Gallop, PhD, *Defense Acquisition University (DAU) Hacking for Defense/Leading Innovation (H4D/LI) Pilot-2 Info Paper,* May 21, 2018, provided to Section 809 Panel, September 20, 2018.

could be avoided with clarifying language in the FMR.[74] The team proposed that clarifying language be added to the FMR and job aides be developed for the PM and business communities.

Figure 2-20. Current Product Improvement Funding Policy[75]



Funding for spare parts serves as another example of why confusion frequently arises. Spare parts may be funded differently based on whether they are considered provisioning spares, replenishment spares, depot level repairs, or obsolescence. The FMR states that initial spares (provisioning spares) and repair parts will be procured along with procurement of the end item and funding will be budgeted based on a first-year obligation rate of 92 percent. The O&M accounts will finance the purchase of depot-level reparables and consumable repair parts, primarily through the Defense Working Capital Fund, for maintenance of all Class IX equipment (excluding medical-peculiar repair parts). Each of these examples may be funded by a different appropriation type and each funding source may face a different year of expiration.

The DoD FMR can often be confusing and subject to interpretation, as in the obsolescence and spares examples above. This confusion results in delayed decision making and lack of agile support to warfighters. The resource decision criteria require simplification, and solutions such as the one depicted in Figure 2-21 need to replace the product-improvement funding policy depicted in the graphic above. Three of the sustainment activities—product improvement, technical refresh, and DMSMS should follow one decision flow chart called product investment because ultimately all of these activities are an investment in the end item.

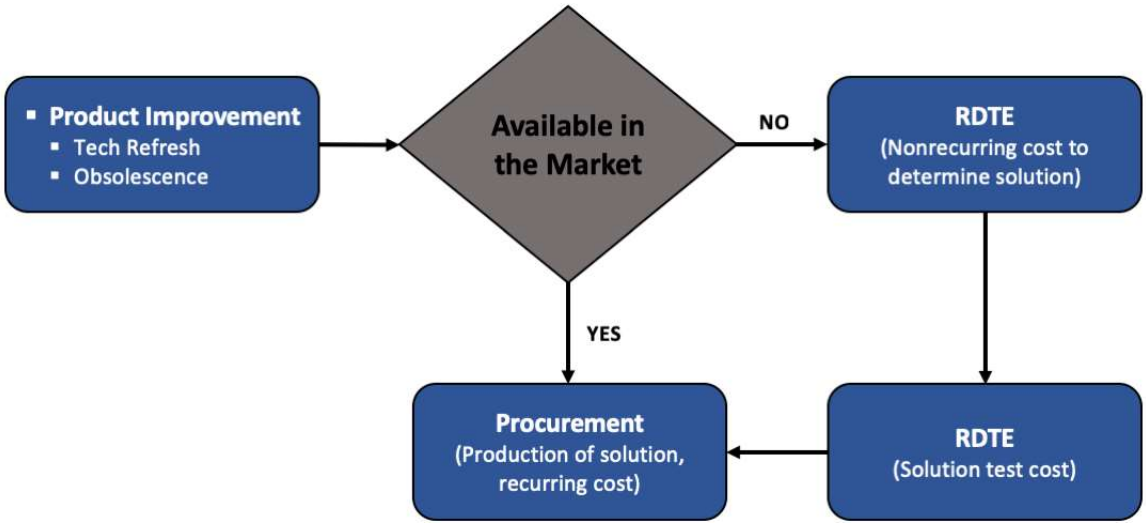
- The RDT&E appropriation should be applied for the analytical nonrecurring cost to find a solution for obsolescence or product improvements. When there is an emergent, unexpected

[74] Ibid.
[75] Figure adapted from presentation by Dana Stewart, *Color of Money: Funding Policies and Fiscal Law*, May 20, 2015, Defense Acquisition University, 19, accessed September 12, 2018 http://ndiatvc.org/images/downloads/DAU_Training/dau_color_of_money.pdf.

obsolescence or DMS, the program office can pursue reprogramming or use of O&M (form, fit, function item replacement), whichever addresses the situation most appropriately.

- The procurement appropriation should be applied for the recurring cost of the investment of the end item, such as scheduled tech refresh and modification kits. This concept still meets the original intent of the FMR that all costs are either an investment or an expense.

Figure 2-21. Proposed Product Investment Decision Tree



Most importantly, it is critical for PMs to recognize that the SPB is dynamic and forecast risk when establishing the SPB cost estimate and plan for RDT&E and procurement postproduction requirements. The investments (Procurement and RDT&E appropriations) are the costs that result in the acquisition of, or addition to, end items. These costs benefit future periods and generally are long term.[76] The O&M appropriation is an expense, and expenses are the costs incurred to operate and maintain the organization and system. That is why an investment account and an expense account should be used for sustainment activities. Because investment accounts will be used for the three types of sustainment activities—product improvements, technical refresh, and DMSMS—these activities can be tied to budget line numbers (BLINs) and PEs. This connection offers more traceability and transparency of costs for these sustainment activities, as well as the total capital investment. Being able to trace program trades of funding for sustainment requirements can be further expanded by establishing separate budget projects and cost categories within the PEs and BLINs. Having this traceability also offers the cost estimating community historical data to improve on and address the sustainment cost estimating weakness described by CAPE.

Sustainment Underfunded/Emergent Requirements Affect Resources Available

Sustainment requirements can be underfunded for a variety of reasons. Too many categories of appropriations accounts, as just described, can lead to situations in which sustainment professionals are unsure which appropriation account to use to cover a given type of cost. Competing requirements among different stakeholders can also lead to chronic underfunding. During the year of execution,

[76] DoD Financial Management Regulation, Volume 2A, Chapter 1, Section 01021 - Funding Policies.

situations can occur as mishaps, material shortages, and emergent requirements such as operational contingencies that affect both needed and available resources.

Acquisition program funding flows from Congress to the Military Services through a variety of appropriations and is channeled to organizations that will ultimately support the product. Examples of program funding include manpower, training, spares, engineering, depot repair, and support equipment. Sustainment funding has often served as the program manager's *bill payer* to meet unplanned program issues during development and production. This results in inaccurate program and budget estimates for sustainment requirements leading to underfunding in the year of execution. The establishment of the SPB should help establish an improved cost estimate and give accountability from the PM through the PAE to report any budget variances to the baseline.

Conclusions

It is critical to establish financial enablers that reduce budgetary uncertainty, increase funding flexibility, enhance the ability to effectively execute sustainment plans, and address emergent sustainment requirements.

DoD should establish an SPB in conjunction with the APB to monitor system requirements through acquisition and O&S. Currently, after IOC there are no formal milestones or events to measure system sustainment/readiness goals tied to the PEO/PM. Currently, sustainment trades are being made without clearly understanding or communicating the overall effect to system readiness and the lifecycle cost of the program. This issue can be mitigated with improved cost estimating methodologies and models for programming and budgeting sustainment funding. PMs should program for system sustainment risk and always establish an RDT&E line for postproduction analytical requirements and program for procurement to address possible obsolescence and product improvements. Doing so will allow PMs to establish long-term strategies to improve sustainment performance or incentivize lifecycle cost reductions.

Planning and investments for sustainment activities are often complicated by complex and ambiguous guidance on funding types. DoD can remedy this problem by clarifying statutes, regulations, and policies regarding funding, and redefining appropriation criteria in the FMR to provide more flexibility. As described above, sustainment planning should be aligned to maximize use of RDT&E and procurement appropriations. O&M may be used for maintenance, repair, and operations.

Once the program enters the execution year, the PEO (or under the proposed portfolio management structure PAE) and PMs need the financial agility to rapidly address emergent sustainment requirements. As described in *Volume 3*, Section 4, budget flexibility can be achieved by the following:

- Increasing the Procurement and RDT&E BTR thresholds, which will permit leadership to more easily move funding as needed within appropriations accounts.
- Delegating BTR authority to the lowest practical level (PEO/PM) with the most knowledge of the program.

Requiring programs to budget for the postproduction phases of their lifecycles will enable leadership to more accurately forecast required future resources via the SPB, reducing the degree to which expanded reprogramming authorities are needed.

Moving some of the sustainment activities to the investment accounts versus annual funding allows PMs to negotiate long-term supplier agreements that can reap savings on contractor supported systems, or performance-based logistics contracts. Although, for those activities still funded by O&M, the PM needs the increased flexibility to fund those requirements affected by continuing resolutions and O&M appropriations accounts should be allowed a 1-year, 5 percent carryover authority.

Extending the period of availability for sustainment funding with the carryover proposal, will reduce pressure to spend money for the sake of spending money driven by obligation end-period spending. In addition to addressing the effects of continuing resolutions, it could also eliminate the pressure driven by appropriation execution performance metrics. This carryover authority in the O&M appropriation accounts would give the sustainment community more time to acquire needed capabilities in years when funding is released late and permit sustainment acquisition professionals to smooth out the end-period surges in contract spending that occur each year.

As described, these recommended financial enablers should provide improved planning, programming, and execution of sustainment activities, which would improve the development, implementation, and tracking of the overall lifecycle cost of a program.

Implementation

Legislative Branch

- Congressional changes to implement sustainment funding recommendations are included in the Section 809 Panel's *Volume 3*, Recommendations 46 through 49.
  - Recommendations 46 through 48 includes a recommendation that FMR rules be modified to allow for more flexible reprogramming of funds at the portfolio level. These modifications would have to be approved by the congressional defense committees. This would allow for more efficient management of acquisition portfolios in general.
  - Recommendation 49 includes a recommendation that defense O&M appropriations accounts be granted a 1-year, 5 percent carryover authority. This would allow for a smoothing across time periods in the funding for many of DoD's sustainment needs.

Executive Branch

- Clarify the definitions of appropriations account categories in the FMR to provide more flexibility for sustainment activities. In particular, clarify the distinction between expenses and investments.
  - Update FMR Volume 2A, Chapter 1, Section 010201(B)(1) to allow O&M appropriations to be used to purchase supplies, services, or solutions that are necessary to address these

expense needs. Expenses are the costs incurred to operate and maintain the organization and systems, such as services, supplies, and utilities.

  - Update FMR Volume 2A, Chapter 1, Section 010201(B)(2) to make the R&D investment cost category provide new and innovative technologies and allow Procurement appropriations and RDT&E appropriations to be used for purchasing supplies, services, or solutions necessary to address these nonrecurrent investment needs. Investments are the costs that result in the acquisition of, modification or addition to, end items. These costs benefit future periods and generally are of a long-term character such as real property and personal property.

- Other Executive Branch changes to implement sustainment funding recommendations are included in the Section 809 Panel's *Volume 3* Recommendations 41 and 46 through 49.

  - Recommendation 41 includes a recommendation to establish a Sustainment Program Baseline (SPB) in conjunction with the APB to report system requirements through acquisition and O&S. APBs and SPBs would together constitute cost estimates for the total lifecycle cost of programs. This change would provide a more transparent and accurate assessment of the true costs of program sustainment.

  - Recommendations 46 through 48 include a recommendation that portfolio managers be given approval to make decisions on below-threshold reprogramming actions in cases for which a viable funding offset has been identified within the same portfolio. This flow down of decision authority should be accompanied by increased reprogramming thresholds and adjustment of the 20 percent rule for reprogramming within Procurement or RDT&E appropriations accounts, allowing for more efficient management of acquisition portfolios in general.

  - Recommendation 49 includes a recommendation that defense O&M appropriations accounts be granted a 1-year, 5 percent carryover authority, to be implemented by the DoD Comptroller and other comptroller authorities in DoD. This carryover authority would allow for a smoothing across time periods in the funding for many of DoD's sustainment needs.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

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Section 2
Portfolio Management Framework

Implementation Details

Department of Defense

DIRECTIVE

NUMBER 5000.01
May 12, 2003
Incorporating Change 2, August 31, 2018
809 Incorporation of DoDD 7045.20
809 Incorporation of Recommendations

USD(A&S)

SUBJECT: ~~The Defense Acquisition System~~ Defense Capabilities Acquisition and Sustainment Framework (DCASF)

References:
(a) DoD Directive 5000.01, "The Defense Acquisition System," October 23, 2000 (hereby canceled)
(b) DoD Instruction 5000.2, "Operation of the Defense Acquisition System," ~~May 12, 2003~~ Jan 7, 2015 (Change 3, Aug, 10, 2017)
(c) DoD Instruction 5025.01, "DoD Directives Program," October 28, 2007
(d) Section 8066, Public Law 109-289, "Making appropriations for the Department of Defense for the fiscal year ending September 30, 2007, and for other purposes" (or successor provision)
(e) Title 10, United States Code, "Armed Forces"
(f) Deputy Secretary of Defense Memorandum, "Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment," July 13, 2018
(g) Section 2350a of title 10, United States Code, "Cooperative Research and Development Projects: Allied Countries"
(h) Section 2751 of title 22, United States Code, "Need for international defense cooperation and military export controls; Presidential waiver; report to Congress; arms sales policy"
(i) Section 2531 of title 10, United States Code, "Defense memoranda of understanding and related agreements"
(j) Federal Acquisition Regulation (FAR), current edition
(k) Section 2222, title 10, United States Code
(l) DoD Directive 8500.01E, "Information Assurance (IA)," October 24, 2002
(m) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," May 5, 2004
(n) DoD Directive 2060.1, "Implementation of, and Compliance with, Arms Control Agreements," January 9, 2001
(o) DoDD 7045.14, "The Planning, Programming, Budgeting, and Execution Process (PPBE)," Jan 25, 2013

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(p) CJCI 5123.01H "Charter Joint Requirements Oversight Council (JROC) and Implementation of the Joint Capabilities Integration and Development System (JCIDS)," 31 Aug 2018
(q) DoDD 7045.20, "Capability Portfolio Management," May 25, 2017 (hereby canceled)
(r) DoDI 5000.74, "Defense Acquisition of Services," Jan 5, 2016 (Change 2, Aug 31, 2018)
(s) DoDI 5000.75, "Business System Requirements and Acquisition," Feb 2, 2017

1. PURPOSE

This Directive:

1.1. Reissues reference (a) and authorizes publication of reference (b), (r), (s) along with appropriate amplifying policy regarding capability development and sustainment activities. Cancels reference (q) while incorporating its key components to provide a single directive with the management principles for the collaborative development and sustainment of all defense capabilities.

1.2. Along with reference (b), (o), (p), (r), (s), provides management principles and mandatory policies and procedures for managing ~~all acquisition programs~~ the development and sustainment of defense capabilities using a multi-tiered portfolio management framework in order to advise senior leadership on capability investment pursuant to the authority vested in the Secretary of Defense by section 113 of title 10, United States Code (Reference (e)).

2. APPLICABILITY AND SCOPE

2.1. This Directive applies to the Office of the Secretary of Defense, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all organizational entities within the Department of Defense (hereafter collectively referred to as the "DoD Components").

2.2. The policies in this Directive apply to all ~~acquisition programs~~ development and sustainment activities for defense capabilities.

3. DEFINITIONS.

See Glossary. [the Glossary contains definitions from prior DoDD 5000.01 and DoDD 7045.20 with noted changes]

3.1. Capability is the ability complete a task or execute a course of action under specificed condition and level of performance.

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3.2. The Defense Capabilities Acquisition and Sustainment Framework (DCASF) is the collaborative framework involving the interrelation of the JCIDS; Planning, Programming, Budgeting, and Execution (PPBE); and the Defense Acquisition System (DAS) to deliver joint warfighting capabilities.

3.3. Portfolio is long lasting collection of shorter duration capabilities including systems, products, programs, and services, that are grouped together to facilitate meeting strategic objectives. Components of the portfolio can be measured, ranked, and prioritized. Components do not have to be interdependent or related.

3.4. Portfolio Management is the centralized management of processes and methods for integrating, synchronizing, collaborating, and coordinating current and planned strategies of a portfolio based on balancing key characteristics.

3.5. An Execution Portfolio (EP) is a portfolio within a Service/Component/Agency organization that is managed as a grouping of systems, programs, products, and services to facilitate total system management and capability delivery in accordance with strategic objectives.

3.6. An Enterprise Capability Portfolio (ECP) is a grouping of capabilities as defined by the Deputy Secretary of Defense and JCS to enable a strategic view of DoD capabilities to inform resource allocation decisions.

3.7. An ECP Co-Leader is the civilian or military co-lead responsible for the execution of enterprise capability portfolios management with strategic planning for assigned capabilities. The ECP Co-leads shall collaborate with DoD Components across the DCASF to integrate, synchronize, and coordinate capability portfolio content to ensure alignment to strategic priorities and capability demand.

3.8. Portfolio Acquisition Executive (PAE) is the designated individual with overall responsibility for an assigned EP. The PAE shall collaborate with DoD Components across the DCASF to continuously monitor outcomes and implement improvements to achieve timely and affordable solutions for defense capabilities.

3.9. System Program Manager (SPM) is the designated individual with responsibility for and authority to accomplish TLCSM objectives for development, production, and sustainment of a system to meet the user's operational needs. The SPM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision Authority (MDA)

3.10. System is the organization of hardware, software, material, facilities, personnel, data and services needed to perform designated functions with specified results (such as the gathering of specified data, its processing, and its delivery to users); or a combination of two or more interrelated pieces (or sets) of equipment arranged in a functional package to perform an operational function or to satisfy a requirement [*as defined by 10 USC 2359b(k)*].

4. POLICY

4.1. The primary objective of the Defense Capabilities Acquisition and Sustainment Framework is the timely and affordable delivery of capabilities ~~System exists to manage the nation's investments in technologies, programs, and product support necessary~~ to achieve the National Security Strategy and the National Defense Strategy while supporting the United States Armed Forces. To achieve that objective, the DoD must be continuously aware of the state of delivered and planned capabilities in order to manage the tension between operational needs (effectiveness) and resource availability (efficiency) ~~The investment strategy of the Department of Defense shall be postured to support not only today's force, but also the next force, and future forces beyond that.~~

4.2. ~~The primary objective of Defense acquisition is to acquire quality products that satisfy user needs with measurable improvements to mission capability and operational support, in a timely manner, and at a fair and reasonable price~~. The DCASF provides a common operating environment through which DoD develops and sustains capabilities though a TLCSM approach. Specifically, the ability to field and support highly capable joint forces depends on implementation of a multi-perspective portfolio framework and continuous positive collaboration among empowered stakeholders in the three components of the framework.

4.3. The DCASF is a multi-perspective, multi-tiered portfolio framework which encompass the three distinct processes operating within the DoD and dictated by statute for requirements, acquisition, and planning/programming/budgeting. Achieving required outcomes mandates collaborative decisions by appropriately authorized decision makers in following processes:

4.3.1. DAS, which includes acquisition approaches in accordance with DoDI 5000.02, 5000.74, 5000.75, and USD(A&S) and USD (R&E) Policy Memoranda on alternative capability development approaches with an objective of acquiring and sustaining capabilities that satisfy user needs with measurable improvements to mission capability and operational support, in a timely manner (effectiveness), and at a fair and reasonable price (efficiency). See reference (b, r, s)

4.3.2. JCIDS, with an objective of identifying, assessing, validating, and prioritizing joint military capability requirements. See reference (p).

4.3.3 PPBE, with an objective of creating defense strategy and programs with balanced and optimized resource allocation for current and future capabilities. See reference (o).

4.4. The following policies shall govern the Defense Capability Acquisition and Sustainment Framework (DCASF) ~~System~~:

4.4.1. Flexibility. The DCASF must be able to field and to support capabilities in view of anticipated needs but also to respond to evolving situations. ECP Co-leaders and PAEs shall continuously maintain accurate assessments of capabilities for which they are accountable while also planning to respond to evolving threats. There is no one best way to structure an EP ~~acquisition program~~ to accomplish the objective of the DCASF ~~efense Acquisition System~~. ~~MDAs and PMs shall tailor program strategies and oversight, including documentation of program information, acquisition phases, the timing and scope of decision reviews, and decision levels, to fit the particular conditions of that program, consistent with applicable laws and regulations and the time sensitivity of the capability need.~~ DoD Components shall organize their EP structure to best fit their development and sustainment objectives. PAEs shall

be delegated decision authority in all three DCASF components to the maximum extent practicable to synchronize across the DCASF within applicable laws and regulations.

4.4.2. Responsiveness. ECP Co-Leaders and PAEs shall continuously seek to identify new and/or innovative technologies for integration into developing or fielded systems ~~Advanced technology shall be integrated into producible systems and deployed~~ in the shortest time practicable. Approved, time-phased capability needs, matched with available technology and resources, enable evolutionary acquisition strategies. Evolutionary ~~acquisition~~ capabilities strategies are the preferred approach to satisfying operational needs. Incremental development is the preferred process for executing such strategies. Requirements development and approval through the DoD Component and JCIDS process shall be aligned with the EP structure and reflected also in EP capability capstone document.

4.4.3. Innovation. Throughout the Department of Defense, all stakeholders ~~acquisition professionals~~ shall continuously develop and implement initiatives ~~to streamline and improve the Defense Acquisition System. MDAs and PM~~ ECP CoLeaders and PAEs shall examine and, as appropriate, adopt innovative practices (including best commercial practices and electronic business solutions) that reduce cycle time and cost, and encourage teamwork shall be adapted. ECP Co-Leaders and PAEs shall develop 20-year portfolio strategies which shall include strategies for continuous awareness of innovative technologies and business practices.

4.4.4. Discipline. ECP Co-Leaders and PAEs ~~PMs~~ shall manage ~~programs~~ portfolios and systems consistent with statute and the regulatory requirements specified in this Directive and in reference (b, r, s). Every ECP Co-Leader and PAE ~~PM~~ shall establish portfolio and systems ~~program~~ goals which are outlined in their 20-year strategic plans. ~~for the~~ A minimum number of capability and acquisition and sustainment ~~cost, schedule, and~~ performance parameters that describe the ~~program~~ system over its life cycle shall be documented. Approved program baseline parameters shall serve as control objectives. ~~PMs shall identify~~ Deviations from approved ~~acquisition program~~ portfolio and system baseline parameters and exit criteria shall be identified.

4.4.5. Streamlined and Effective Management. Responsibility for the ~~acquisition of~~ portfolio management of EPs and the individual systems within EPs shall be decentralized to the maximum extent practicable, with command by negation as the principle doctrine. The MDA shall be designated and delegated ~~provide a single individual with~~ sufficient authority to accomplish ~~MDA~~ approved ~~program~~ objectives for development, production, and sustainment. The MDA shall ensure accountability and maximize credibility in cost, schedule, and performance reporting.

4.5. Additional policies that will be applied to the DCASF ~~acquisition system~~ are at enclosure 1.

5. RESPONSIBILITIES

5.1. ~~The USD(AT&L), the Assistant Secretary of Defense for Networks and Information Integration/… Defense Acquisition System.~~ DoD Chief Management Officer, Service Secretaries, Service Chiefs, Under Secretary of Defense for Policy (USD(P)), Chairman of the Joint Chiefs of Staff (CJCS), Under Secretary of Defense (Comptroller)/Chief Financial Officer

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(USD(C)/CFO), USD(A&S), USD(R&E), DoD Chief Information Officer, CAPE Director, the Director of Operational Test and Evaluation, and Agency Directors are key officials of the DCASF. Consistent with their respective authorities, they may jointly issue DoD Instructions, DoD Publications, and one-time directive-type memoranda, consistent with DoD Instruction 5025.01 (reference (c)), that implement the policies contained in this Directive.

5.2. Financial management requirements shall be addressed for all financial management and mixed (financial and non-financial) information systems and shall be certified as being compliant with the Financial Management Modernization Plan by the Under Secretary of Defense (Comptroller) (USD(C)), section 8066, Pub. L. 109-289 (reference *(*d)).

5.3. USD (A&S). USD (R&E), USD (Comptroller), DoD CMO, and VCJCS in collaboration with the DoD Components, shall define and populate the ECPs. A collaborative environment shall be achieved to actively managing the tension between operational needs and resource availability (capital investments) by establishing ECP that will be co-lead by senior civilian and military leaders. The ECP Co-Leaders will work through the Deputy's Mangement Action Group (DMAG) to advise the Deputy Secretary of Defense and other senior department leadership.

5.4. The DoD Chief Mangement Officer and Head of the DoD Components shall:

5.5.1 Ensure that their respective decision fora, processes, policies, and procedures support the multi-perspective portfolio framework and objective of one stop collaborative environment across the DCASF.

5.5.2 Ensure PAEs collaborate with ECP Co-Leaders by providing access to and visibility of EP information required to support analytic activities and adequately advise the DMAG in a timely manner.

5.5.3 Assess ECP Strategic Plans and recommendations as appropriate.

5.5.4 Individuals assigned to the EP organization shall be delegated functional authority by their functional leaders sufficient to execute the EP's objectives and be rated within the EP organization on their contributions to the success of the EP. EP organization shall include empowered leaders from DCASF, including requirements and comptroller.

5.5. The Chairman of the Joint Chiefs of Staff (CJCS) shall provide advice and assessment on military capability needs in accordance with sections 153, 163, and 181 of title 10 (reference (e)). The CJCS shall present this advice and assessment through validated and approved capabilities documents. The CJCS may engage the components and agencies to provide this advice and assessment. Consistent with this Directive, and in coordination with the USD(AT&L), the CJCS may establish procedures to carry out this responsibility. Additionally, the CJCS shall:

5.6.1 Recommend to the Deputy Secretary of Defense a Joint Staff or Combatant Command Flag or General officer to serve as the ECP military co-lead who will also be

FCB Chair.

5.6.2 Ensure that Joint Staff decision fora, processes, policies, and procedures support the multi-perspective portfolio framework.

5.6.3 Develop and manage a process for SWarF participation in portfolio management that includes development and refinement of capability attributes to be used in shaping requirements.

5.6.4 Develop and manage a process for prioritizing JCAs annually to inform options for cross- capability portfolio trades.

5.6.5 Assess execution of national strategy, Guidance for the Development of the Force (GDF) and ECP strategic plans; recommend changes through the Chairman's Risk Assessment.

6. SUMMARY OF CHANGE 2. This change reassigns the office of primary responsibility for this issuance to the Under Secretary of Defense for Acquisition and Sustainment in accordance with the July 13, 2018 Deputy Secretary of Defense Memorandum (reference (f)).

7. EFFECTIVE DATE

This Directive is effective immediately.

(signed by)
Deputy Secretary of Defense

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ENCLOSURE 1

ADDITIONAL POLICY

E1.1.1. Armaments Cooperation. PAEs ~~PMs~~ shall pursue international armaments cooperation to the maximum extent feasible, consistent with sound business practice and with the overall political, economic, technological, and national security goals of the United States. International agreements for international armaments cooperation programs shall complete the interagency consultation and Congressional notification requirements contained in 10 U.S.C. 2350a (reference (g)), section 2751 of the Arms Export Control Act (reference (h)), and 10 U.S.C. 2531 (i).

E1.1.2. Collaboration. The DoD acquisition, capability needs, and financial communities, and operational users shall maintain continuous and effective communications with each other by using Integrated Product Teams (IPTs). Teaming among warfighters, users, developers, acquirers, technologists, testers, budgeters, and sustainers shall begin during capability needs definition. MDAs ~~and PMs~~ are responsible for making decisions are supportive of EP planning and ~~leading execution of their programs, and~~ are accountable for results.

E1.1.3. Competition. Competition shall provide major incentives to industry and Government organizations to innovate, reduce cost, and increase quality. All of the DoD Components shall acquire systems, subsystems, equipment, supplies, and services in accordance with the statutory requirements for competition. Acquisition managers shall take all necessary actions to promote a competitive environment, including the consideration of alternative systems to meet stated mission needs; structuring Science and Technology (S&T) investments and acquisition strategies to ensure the availability of competitive suppliers throughout a program's life, and for future programs; ensuring that prime contractors foster effective competition for major and critical products and technologies; and ensuring that qualified international sources are permitted to compete. If competition is not available, PMs shall consider alternatives that will yield the benefits of competition.

E1.1.4. Cost and Affordability. All participants in the acquisition system shall recognize the reality of fiscal constraints. They shall view cost as an independent variable, and the DoD Components shall plan programs based on realistic projections of the dollars and manpower likely to be available in future years. To the greatest extent possible, the MDAs shall identify the total costs of ownership, and at a minimum, the major drivers of total ownership costs. The user shall address affordability in establishing capability needs. Programming/budgeting (Budget Line item/Program element) shall be aligned to EP.

E1.1.5. Cost Realism. Contractors shall be encouraged to submit cost proposals that are realistic for the work to be performed. “Buy-ins” shall be discouraged because they may subvert competition or lead to poor contract performance or cost overruns. Proposals shall be evaluated for cost realism in accordance with the Federal Acquisition Regulation (reference (j)).

E1.1.6. Cost Sharing. The PM shall structure the acquisition in a way that neither imposes undue risk on contractors, nor requires unusual contractor investment. Contractors shall not be encouraged nor required to invest their profit dollars or independent research and development

funds to subsidize defense research and development contracts, except in unusual situations where there is a reasonable expectation of a potential commercial application. Contractors are entitled to earn reasonable rewards on DoD contracts, including competitively awarded contracts.

E1.1.7. Financial Management. The Defense Business Systems Management Committee shall develop a Business Enterprise Architecture and a transition plan in accordance with section 2222, title 10, U.S.C. reference (k)) and shall approve any obligation of funds in excess of $1M for a defense business system modernization.

E1.1.8. Independent Operational Test Agency (OTA). Each Military Department shall establish an independent OTA reporting directly to the Service Chief to plan and conduct operational tests, report results, and provide evaluations of effectiveness and suitability.

E1.1.9. Information Assurance. Acquisition managers shall address information assurance requirements for all weapon systems; Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance systems; and information technology programs that depend on external information sources or provide information to other DoD systems. DoD policy for information assurance of information technology, including NSS, appears in DoD Directive 8500.01E, reference *(l).*

E1.1.10. Information Superiority. Acquisition managers shall provide U.S. Forces with systems and families of systems that are secure, reliable, interoperable, compatible with the electromagnetic spectrum environment, and able to communicate across a universal information technology infrastructure, including NSS, consisting of data, information, processes, organizational interactions, skills, analytical expertise, other systems, networks, and information exchange capabilities.

E1.1.11. Integrated Test and Evaluation. Test and evaluation shall be integrated throughout the defense acquisition process. Test and evaluation shall be structured to provide essential information to decision-makers, assess attainment of technical performance parameters, and determine whether systems are operationally effective, suitable, survivable, and safe for intended use. The conduct of test and evaluation, integrated with modeling and simulation, shall facilitate learning, assess technology maturity and interoperability, facilitate integration into fielded forces, and confirm performance against documented capability needs and adversary capabilities as described in the system threat assessment.

E1.1.12. Intelligence Support. Intelligence and understanding threat capabilities are integral to system development and acquisition decisions. ~~PMs~~ PAEs shall keep threat capabilities current and validated in ~~program~~ portfolio documents throughout the total system approach ~~acquisition process~~.

E1.1.13. Interoperability. Systems, units, and forces shall be able to provide and accept data, information, materiel, and services to and from other systems, units, and forces and shall effectively interoperate with other U.S. Forces and coalition partners. Joint concepts and integrated architectures shall be used to characterize these interrelationships. DoD policy for the information technology, including NSS, aspects of interoperability and supportability appears in DoD Directive 4630.05, (reference *(m)).*

E1.1.14. Knowledge-Based Acquisition. PMs shall provide knowledge about key aspects of a system at key points in the total system approach ~~acquisition process~~. PMs shall reduce technology risk, demonstrate technologies in a relevant environment, and identify technology alternatives, prior to program initiation. They shall reduce integration risk and demonstrate product design prior to the design readiness review. They shall reduce manufacturing risk and demonstrate producibility prior to full-rate production.

E1.1.15. Legal Compliance. The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference *(n)*, customary international law, and the law of armed conflict (also known as the laws and customs of war). An attorney authorized to conduct such legal reviews in the Department shall conduct the legal review of the intended acquisition of weapons or weapons systems.

E1.1.16. Performance-Based Acquisition. To maximize competition, innovation, and interoperability, and to enable greater flexibility in capitalizing on commercial technologies to reduce costs, acquisition managers shall consider and use performance-based strategies for acquiring and sustaining products and services whenever feasible. For products, this includes all new procurements and major modifications and upgrades, as well as re-procurements of systems, subsystems, and spares that are procured beyond the initial production contract award. When using performance-based strategies, contract requirements shall be stated in performance terms, limiting the use of military specifications and standards to Government-unique requirements only. Acquisition managers shall base configuration management decisions on factors that best support implementing performance-based strategies throughout the product life cycle.

E1.1.17. Performance-Based Logistics. ~~PMs~~ PAEs shall develop and implement performance- based logistics strategies that optimize total system availability while minimizing cost and logistics footprint. Trade-off decisions involving cost, useful service, and effectiveness shall consider corrosion prevention and mitigation. Sustainment strategies shall include the best use of public and private sector capabilities through government/industry partnering initiatives, in accordance with statutory requirements.

E1.1.18. Products, Services, and Technologies. The DoD Component(s) shall consider multiple concepts and analyze possible alternative ways to satisfy the user need from capabilities within the ECP. System concepts shall be founded in an operational context, consistent with the National Military Security Strategy, Strategic Planning Guidance, Joint Programming Guidance, Joint Concepts, and joint integrated architectures. The DoD Components shall seek the most cost-effective solution over the system's life cycle. EPs shall have a set of criteria which are the key questions for determining portfolio capability value relates to resource efficiency and effectiveness of the EP life cycle. Models shall be used to support resource allocation and capability delivery effectiveness decisions across the EP. ~~They~~ MDA shall require ~~conduct~~ market research and analysis to determine the availability, suitability, operational supportability, interoperability, safety, and ease of integration of the considered and selected ~~procurement~~ solutions. The DoD Components shall work with users to define capability needs that facilitate the following, listed in descending order of preference:

E1.1.18.1. The procurement or modification of commercially available products, services, and technologies, from domestic or international sources, or the development of dual-use technologies;

E1.1.18.2. The additional production or modification of previously-developed U.S. and/or Allied military systems or equipment;

E1.1.18.3. A cooperative development program with one or more Allied nations;

E1.1.18.4. A new, joint, DoD Component or Government Agency development program; or

E1.1.18.5. A new DoD Component-unique development program.

E1.1.19. Professional Workforce. The Department of Defense shall maintain a fully proficient requirement, financial mangement and acquisition, technology, and logistics workforce that is flexible and highly skilled across a range of management, technical, and business disciplines. To ensure this, the CJCS, USD (C), and USD(AT&S~~L~~) shall establish education, training, and experience standards for each DCASF ~~acquisition~~ position based on the level of complexity of duties carried out in that position. Career development models that continuously deepen and broaden the workforce member's experience *throughout their entire career* require a competency model with technical and non-technical skills and associated proficiency standards for every career field.

E1.1.20. Program Information. Complete and current program information is essential to the acquisition process. Consistent with the tables of required regulatory and statutory information appearing in reference (b, r, s), decision authorities shall require ~~PMs and other participants in the defense acquisition process to present~~ presentation of only the minimum information necessary to establish the program baseline, describe program plans, understand program status, and make informed decisions. The MDA shall "tailor-in" portfolio and program information. To the maximum extent possible, system and program information including consolidation within the EP strategic plan. ~~IPTs shall facilitate the management and exchange of program information.~~

E1.1.21. Program Stability. The DoD Components shall develop realistic program schedules, long-range investment plans, and affordability assessments, and shall strive to ensure stable program funding. The MDA shall determine the appropriate point at which to fully fund an acquisition program generally when a system concept and design have been selected, a SPM has been assigned, capability needs ~~have been~~ approved, and system-level development is ready to begin. Full funding shall be based on the cost of the most likely system alternative and fit within a resilient portfolio funding strategy.

E1.1.22. Research and Technology Protection. Acquisition managers shall identify classified and controlled unclassified research and technology information requiring additional counter intelligence and security support early in the research and development, capability needs generation, and acquisition processes.

E1.1.23. Safety. Safety shall be addressed throughout the acquisition process. Safety considerations include human (includes human/system interfaces), toxic/hazardous materials and substances, production/manufacturing, testing, facilities, logistical support, weapons, and munitions/explosives. All systems containing energetics shall comply with insensitive munitions criteria.

E1.1.24. Small Business Participation. Acquisition strategies shall be structured to facilitate small business participation throughout a portfolio across the portfolio strategic planning period

~~program's life cycle~~ through direct participation or, where such participation is not available, through fostering teaming with small business concerns.

E1.1.25. Software Intensive Systems. Acquisition of software intensive systems shall use process improvement and performance measures. Selection of sources shall include consideration of product maturity and past performance.

E1.1.26. Streamlined Organizations. The Department of Defense shall use a streamlined management structure in the acquisition system, characterized by short, clearly defined lines of responsibility, authority, and accountability. In no case, shall there be more than two levels of review between a PM and the MDA.

E1.1.27. Systems Engineering. ~~Acquisition programs~~ Systems shall be managed through the application of a systems engineering approach that optimizes total system performance and minimizes total ownership costs. A modular, open-systems approach shall be employed, where feasible.

E1.1.28. Technology Development and Transition. The S&T program shall:

E1.1.28.1. Address user needs;

E1.1.28.2. Maintain a broad-based program spanning all Defense-relevant sciences and technologies to anticipate future needs and those not being pursued by civil or commercial communities;

E1.28.3. Preserve long-range research; and

E1.28.4. Enable rapid, successful transition from the S&T base to useful military products.

E1.1.29. Total Systems Approach. The Portfolio Acquisition Executive (PAE) ~~PM~~ shall be the single point of accountability for accomplishing ~~program~~ EP objectives for capability mangement through total life-cycle systems management (TLCSM), including sustainment. The PAE ~~PM~~ shall apply human systems integration to optimize total system performance (hardware, software, and human), operational effectiveness, and suitability, survivability, safety, and affordability. ~~PMs~~ PAE shall consider supportability, life cycle costs, performance, and schedule comparable in making program decisions. Planning for Operation and Support and the estimation of total ownership costs shall begin as early as possible. Supportability, a key component of performance, shall be considered throughout the system life cycle.

E1.1.30. Defense Business Systems. Defense Business Systems (DBS) requirements, resources, and acquisition shall be overseen by the DoD CMO, who will chair the Defense Business Council (DBC). A defense business enterprise architecture shall be developed to guide the integration of business processes in accordance to reference (k). DBS ECP will identify and advocate for enterprise (cross-Service) DBS solutions. The DBC will provide oversight of DBS component portfolios and adjudicate issues among the Component DBS portfolios. DBS component PAE(s) shall collaborate with the DBS ECP co-leaders by providing access to and visibility to EP information required to support analytic activities and adequately advise the CMO and DMAG in a timely manner.

Section 809 Panel

GLOSSARY

DEFINITIONS

The Defense Acquisition System is the management process by which the Department of Defense provides effective, affordable, and timely systems to the users.

An Acquisition Program is a directed, funded effort that provides a new, improved, or continuing materiel, weapon or information system, or service capability in response to an approved need.

An Acquisition and Sustainment Program is a directed, funded, total life cycle commitment that provides a new, improved, or continuing material, weapon or information system, or service capability in response to an approved need. Each program shall be assigned to a System Program Manager (SPM).

The Defense Acquisition Executive (DAE) is the USD (A&S) who has the primary responsibility for supervising the Defense Acquisition System. The DAE takes precedence on all acquisition matters after the Secretary and the Deputy Secretary. The DAE shall collaborate with DoD Components across the DCASF to continuously monitor outcomes and implement improvements to achieve timely and affordable solutions for defense capabilities.

The Milestone Decision Authority (MDA) is the designated individual with overall responsibility for a program. The MDA shall have the authority to approve entry of an acquisition program into the next phase of the acquisition process and shall be accountable for cost, schedule, and performance reporting to higher authority, including Congressional reporting.

The Service/Component Acquisition Executive (SAE/CAE) is the designated individual with overall responsibility for the collection of execution portfolios within that individual's service or component. The SAE/CAE shall collaborate with DoD Components across the DCASF to continuously monitor outcomes and implement improvements to achieve timely and affordable solutions for defense capabilities.

Enterprise Capabilities Portfolio Strategic Plan. The ECP Co-lead's long-range plan to synchronize, integrate, and coordinate efforts related to capability investments to meet joint warfighter and supporting defense entity needs. These plans address portfolio scope, portfolio objectives, dependencies with other portfolios, processes and plans, performance targets and metrics, and risk considerations.

Capabilities-based planning. A planning methodology that identifies and provides capabilities that the joint warfighter and supporting defense entities need to address a range of challenges.

Capability attribute. A set of desired properties, qualities, or characteristics used to describe a specific capability and subject to being measured or evaluated. Developed by the joint warfighter to aid in the development of capability priorities, requirements, and solutions.

JCAs. Collections of like DoD capabilities functionally grouped to support capability analysis, strategy development, investment decision making, capability portfolio management, and capabilities-based force development and operational planning.

An ECP Co-leader is a designated individual with strategic planning for assigned capabilities. The ECP Co-lead shall collaborate with DoD Components across the DCDSS to integrate, synchronize, and coordinate capability portfolio content to ensure alignment to strategic priorities and capability demand.

SWarF. A forum, generally consisting of the Combatant Commands and the Military Services, to organize, analyze, prioritize, and build joint consensus from the warfighter's perspective on complex resource and capabilities needs issues. These forums are delegated by the Chairman of the Joint Chiefs of Staff and are vested in the JROC.

Section 809 Panel

RECOMMENDED REPORT LANGUAGE

SEC. ___. IMPLEMENTATION OF RECOMMENDATIONS OF THE SECTION 809 PANEL RELATING TO PORTFOLIO MANAGEMENT.

This section would require the Secretary of Defense to implement, within 180 days after date of enactment, the recommendations of the acquisition advisory panel established under Section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The Secretary also would be required to make any necessary revisions to directives, instructions, and policy documents necessary to implement the recommendations. A report on implementation, along with legislative recommendations, would be submitted to the congressional defense committees 180 days after date of enactment.

The committee agrees with the assessment of the Section 809 Panel that transitioning defense acquisition from a program-centric model to a capability portfolio framework is critical to improving the defense acquisition process, enabling a more agile, flexible and decentralized organization. The committee, however, is aware that attempting to specify in statute the internal management relationships recommended by the panel would entail a level of detail relating to management structure within the Department not typically seen in statute, with the attendant risks both of inadvertent error and of inflexibility for the future. The committee expects the Department to fully consider the rationale and framework outlined in the Section 809 Panel report, dated January 15, 2019, when developing its proposals to implement the panel's recommendations.

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The Section 809 Panel believes that its recommendations relating to a capability portfolio framework are critical to improving the defense acquisition process and that these recommendations should be required to be implemented as a matter of law. The panel believes that an implementation requirement with the force of law, with a statutory deadline, will be essential to driving the timely implementation of these recommendations within the Department of Defense.

At the same time, the panel is aware that attempting to write into statute the internal management relationships recommended by the panel would entail a level of detail relating to management structure within the Department not typically seen in statute, with the attendant risks both of inadvertent error and of inflexibility for the future.

The Panel notes that in section 868 of the NDAA for FY2019 (Public Law 115-232, enacted August 13, 2018), Congress required the Secretary of Defense to implement the recommendations of the final report of the Defense Science Board task force on the design and acquisition of software for defense systems. The panel believes that that is an appropriate model for Congress to use in directing implementation of these recommendations and is providing draft legislative language accordingly.

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**(Based on Section 868 of the FY2019 NDAA,
P. L. 115-232, enacted Aug 13, 2018)**

SEC. ___ . IMPLEMENTATION OF RECOMMENDATIONS OF THE SECTION 809 PANEL RELATING TO PORTFOLIO MANAGEMENT.

(a) IMPLEMENTATION REQUIRED.—

(1) IN GENERAL.—Not later than the end of the 180-day period beginning on the date of the enactment of this Act, the Secretary of Defense shall, except as provided in subsection (c), implement the portfolio management recommendations made by the Section 809 Panel that are specified in paragraph (2).

(2) COVERED RECOMMENDATIONS.—The recommendations referred to in paragraph (1) are the recommendations set forth in Volume 3 of the Report of the Section 809 Panel, dated January 15, 2019, that are designated as follows:

(A) Subrecommendation A of Recommendation No. 36, relating to transitioning from a program-centric execution model to a portfolio execution model.

(B) Subrecommendation A of Recommendation No. 37, relating to transitioning the current defense acquisition system to a defense capability acquisition and sustainment framework.

(C) Subrecommendation B of Recommendation No. 37, relating to establishing Enterprise Capability Portfolios (ECPs)

(b) IMPLEMENTATION.—

(1) SUBMISSION OF IMPLEMENTATION PLANS TO CONGRESSIONAL COMMITTEES.—For each recommendation specified in subsection (a)(2) that the Secretary is implementing, or that the Secretary plans to implement, the Secretary shall submit to the congressional defense committees a report providing—

(A) a summary of actions that have been taken to implement the recommendation; and

(B) a schedule, with specific milestones, for completing the implementation of the recommendation.

Each such report shall be submitted not later than 180 days after the date of the enactment of this Act.

(2) REVISED DIRECTIVES.—Not later than 180 days after the date of the enactment of this Act, the Secretary shall issue such revisions to Department of Defense directives, instructions, and policy documents as necessary for the implementation of recommendations under this section. In preparing such revisions, the Secretary shall

consider the draft revisions to Department of Defense Directive 5000.01 provided by the Section 809 Panel as an enclosure to Volume 3 of the Report of the Panel.

(3) STATUTORY REVISIONS.— Not later than 180 days after the date of the enactment of this Act, the Secretary shall submit to Congress a legislative proposal for any statutory changes that the Secretary determines to be required to fully implement the recommendations under this section.

(c) EXCEPTIONS.—

(1) DELAYED IMPLEMENTATION.—The Secretary of Defense may delay implementation of all or any portion of a recommendation specified in subsection (a) after the date specified in paragraph (1) of that subsection if before that date the Secretary submits to the congressional defense committees a report—

(A) identifying the recommendation or portion of the recommendation for which implementation is to be delayed;

(B) describing the delay in implementation; and

(C) providing a specific justification for the delay.

(2) NONIMPLEMENTATION.—The Secretary may opt not to implement a recommendation, or a portion of a recommendation, specified in subsection (a) if the Secretary submits to the congressional defense committees a report—

(A) identifying the recommendation or portion of the recommendation that the Secretary has opted not to implement; and

(B) providing —

(i) the reasons for the decision not to implement the recommendation; and

(ii) a summary of the alternative actions the Secretary plans to take to address the purposes underlying the recommendation.

(d) SECTION 809 PANEL.—In this section, the term "Section 809 Panel" means the panel established by the Secretary of Defense pursuant to section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), as amended by section 863(d) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) and sections 803(c) and 883 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

RECOMMENDED REPORT LANGUAGE

SEC. ___. REVIEW OF STRUCTURE OF BUDGET LINE ITEMS AND PROGRAM ELEMENTS FOR FUNDING OF DEFENSE ACQUISITION PROGRAMS.

This section would require the Secretary of Defense to conduct a comprehensive review of the existing budget line item and program element structure for Department of Defense acquisition programs. Under this section, the objective of the review would be to (a) address cases in which programs or systems have been subdivided into multiple line items or program elements, making them more difficult to manage and (b) identify cases in which multiple programs or systems intended to provide a common capability could be combined into a single line item or program element. A report of the review, along with legislative recommendations, would be provided to the congressional defense committees one year after date of enactment.

The committee notes that this review should facilitate implementation of other legislative recommendations in this title to create a portfolio management structure. The committee further notes that one of the biggest challenges to implementing a portfolio structure is the current allocation of program budgets, with most procurement programs being funded and managed through individual budget line items, or in some cases, program elements.

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SEC. ___. REVIEW OF STRUCTURE OF BUDGET LINE ITEMS AND PROGRAM ELEMENTS FOR FUNDING OF DEFENSE ACQUISITION PROGRAMS.

(a) REVIEW REQUIRED.—The Secretary of Defense shall conduct a comprehensive review of the budget line item and program element structure for acquisition programs within the budget of the Department of Defense, with the objective of—

(1) identifying cases in which management of a program or system has been made more difficult due to the program or system having been subdivided into multiple budget line items or program elements;

(2) identifying cases in which the budget line items or program elements for multiple programs or systems intended to provide a common capability could be combined into a single budget line item or a single program element; and

(3) identifying steps that could be taken to address the cases identified under paragraphs (1) and (2).

(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a report providing the results the review under subsection (a), together with the Secretary's plan for any changes to be made within the Department of Defense resulting from the review and such recommendations for legislative action as the Secretary considers appropriate as a result of the review.

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RECOMMENDED REPORT LANGUAGE

SEC. ___. PILOT PROGRAM FOR IMPROVED FINANCIAL FLEXIBILITY WITHIN PORTFOLIO MANAGEMENT OF PROGRAMS.

This section would authorize the Secretary of Defense to carry out a pilot program under which one execution portfolio in each military department would be managed under a single budget line item (with respect to procurement funding) and a single program element (with respect to research, development, test, and evaluation funding) for all programs and activities of that military department included in that portfolio. Each pilot program would be designated 180 days after date of enactment. A report on results of the pilot program would be submitted to the congressional defense committees five years after the start of the program.

The committee notes, that as outlined in this section, the intent of the pilot program would be to provide the portfolio manager with flexibility to move money in response to changes in technology and other program developments.

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SEC. ___. PILOT PROGRAM FOR IMPROVED FINANCIAL FLEXIBILITY WITHIN PORTFOLIO MANAGEMENT OF PROGRAMS.

(a) IN GENERAL.—In order to examine the advantages and disadvantages of providing financial flexibility within the portfolio management of programs, the Secretary of Defense shall carry out a pilot program under which one execution portfolio in each military department shall be managed under a single budget line item (with respect to procurement funding) and a single program element (with respect to research, development, test, and evaluation funding) for all programs and activities of that military department included in that portfolio.

(b) PORTFOLIO DESIGNATION.—The Secretary shall designate the portfolio for each military department to be in the pilot program under subsection (a) not later than 180 days after the date of the enactment of this Act.

(c) BUDGET.—In each budget submitted by the President to Congress under section 1105 of title 31, United States Code, during the duration of the pilot program under this section,, amounts requested for procurement, and for research, development, test, and evaluation, for all programs and activities included in the execution portfolio of a military department designated under subsection (b) shall be set forth as a single amount, separately from other amounts requested for procurement, and for research, development, test, and evaluation, respectively, for that military department.

(d) ASSESSMENT AND REPORT.—The Secretary of Defense shall assess the pilot program on an ongoing basis. Not later than 60 days after the end of the fifth fiscal year that begins after the pilot program is implemented under this section, the Secretary shall submit to the congressional defense committees a report providing the Secretary's findings and conclusions resulting from the pilot program, together with the Secretary's plan for any changes to be made

within the Department of Defense resulting from those findings and conclusions and such recommendations for legislative action as the Secretary determines to be needed as a result of those findings and conclusions.

RECOMMENDED REPORT LANGUAGE

SEC. ___. FUNDING FOR ENTERPRISE CAPABILITY PORTFOLIOS.

This section would amend Section 804 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92; 10 U.S.C. 2302 note) to add a new subsection to improve funding flexibility for the new enterprise capability portfolio structure.

The committee is aware that currently the Department of Defense's separate requirements, budget, and acquisition decision-making processes do not enable an enterprise-wide view of existing and planned capabilities across the military services and defense agencies to support timely and informed resource allocation decisions, and ensure delivery of integrated and innovative solutions to meet strategic objectives. The committee notes that establishing enterprise capability portfolios would address that concern. The committee further notes that allocating to the enterprise capability portfolio manager a portion of the defense-wide funding for rapid-response and prototyping, administered by the Under Secretary of Defense (Research and Engineering), would provide "seed" funding for innovative and agile capability initiatives or solutions that would address strategic priorities. The committee expects that the funding made available to the enterprise capability portfolio leadership by the Under Secretary would focus attention on specific innovative technologies and provide a source of funding to the military services and defense agencies to respond to priority opportunities when funding is otherwise unavailable.

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SEC. ___. FUNDING FOR ENTERPRISE CAPABILITY PORTFOLIOS.

Section 804 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92; 10 U.S.C. 2302 note) is amended by adding at the end the following new subsection:

"(e) ENTERPRISE CAPABILITY PORTFOLIO INITIATIVES.—Amounts available in the Fund may be provided by the Under Secretary of Defense for Research and Engineering to an enterprise capability portfolio manager for distribution to a defense component portfolio included within that enterprise portfolio in order to support imminent demonstration and prototyping of innovative and agile capability initiatives received by that component portfolio that are applicable to capabilities in that portfolio and which support key portfolio priorities, consistent with strategic plans.''.

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RECOMMENDED REPORT LANGUAGE

SEC.___. PROTOTYPE PORTFOLIO REQUIREMENTS.

This section would authorize each of the military departments and defense agencies to establish a pilot program focused on a portfolio requirements approach for one or more of the acquisition portfolios for which that official has responsibility. The committee notes that such an approach should enable greater speed, agility, and innovation in fielding military capabilities.

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SEC.___. PROTOTYPE PORTFOLIO REQUIREMENTS.

(a) IN GENERAL.—The Secretary of each military department and the Director of one more Defense Agencies designated by the Secretary of Defense for purposes of this section shall establish a pilot program for a portfolio requirements approach for one or more of the acquisition portfolios for which that official has responsibility to enable greater speed, agility, and innovation in fielding military capabilities. Each such pilot program shall be established in consultation with the Vice Chairman of the Joint Chiefs of Staff with respect to matters for which the Vice Chairman has responsibility.

(b) ELEMENTS.—Under the portfolio requirements pilot program for an acquisition portfolio, the Secretary of the military department or Director of the Defense Agency establishing the pilot program shall—

(1) develop a capstone set of requirements for the acquisition portfolio in accordance with subsection (c);

(2) authorize the Program Executive Officer (or Portfolio Acquisition Executive or similar portfolio manager) for the portfolio to changing the scope and requirements for programs within the portfolio, subject to subsection (d);

(3) assign representatives of operational forces (to the acquisition portfolio and authorize them to perform the functions specified in subsection (e);

(4) maximize the use of prototyping, experimentation, and minimum viable products to shape capability scope and requirements;

(5) develop a network of government, industry, and academia research and development organizations to align science and technology and research to portfolio capability areas;

(6) manage information technology requirements using dynamic portfolio backlogs (prioritized lists of user needs) rather than large static requirements documents; and

(7) iteratively define, prioritize, and refine requirements at the portfolio, program, and iteration levels based on user input and previous deliveries.

(c) CAPSTONE SET OF REQUIREMENTS.—The capstone set of requirements for an acquisition portfolio developed under subsection (b)(1)—

(1) shall be designed so as to—

(A) guide the iterative delivery of an integrated suite of capabilities to maximize operational impact;

(B) provide enduring themes based on strategic needs and relevant concepts of operation, not system specific; and

(C) include measures of force effectiveness for a force mix of capabilities to be measured against; and

(2) may include kill chains, effects chains, vignettes of operational scenarios, and related mission engineering initiatives across the Department of Defense.

(d) AUTHORITY TO REVISE PROGRAMS WITHIN A PORTFOLIO.—The authority under subsection (b)(2)—

(1) shall be carried out in consultation with operational commands and key stakeholders; and

(2) does not include authority to change key performance parameters for a major defense acquisition program.

(e) FUNCTIONS OF OPERATIONAL REPRESENTATIVES.—An operational representative assigned to an acquisition portfolio under subsection (b)(3) shall be provided authority to—

(1) shape the vision and priorities for key capability areas;

(2) provide the acquisition community and developers insights into operations;

(3) provide feedback on interim developments;

(4) foster collaboration among the acquisition community, developers, and users of the capability to be fielded; and

(5) provide advice to the Program Executive Officer (or Portfolio Acquisition Executive or similar portfolio manager).

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RECOMMENDED REPORT LANGUAGE

SEC. ___. SUSTAINMENT PROGRAM BASELINE.

This section would amend Chapter 137, title 10, United States Code, by inserting a new section 2336 to establish a sustainment program baseline (SBP) for each program or system that requires an acquisition strategy pursuant to section 2431a, title 10, United States Code. The baseline would be used within the Department of Defense to govern product support cost, schedule, and performance of the covered program throughout the life-cycle of the program. The SPB for a covered program would be developed concurrently with the development of the Acquisition Program Baseline for the program.

The committee notes that, on average, approximately 72 percent of weapon systems lifecycle costs are in sustainment, yet there is no mechanism for coordinated governance of this critical operational program phase. The committee expects that the SPB would improve the current shortcomings in both the acquisition and sustainment systems that are affecting both operational costs and readiness. The committee further notes that under this section the program manager would develop and coordinate the SPB with empowered representatives of the chief of the service and service comptroller before submission to the milestone decision authority for approval which would facilitate a long-term commitment that will enhance readiness.

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SEC. ___. SUSTAINMENT PROGRAM BASELINE.

(a) IN GENERAL.—Chapter 137 of title 10, United States Code, is amended by inserting after section 2335 the following new section:

"§2336. Sustainment program baseline

"(a) SUSTAINMENT PROGRAM BASELINE REQUIRED.—

"(1) REQUIREMENT.—There shall be a sustainment program baseline (in this section referred to as an 'SPB') for each program or system for which an acquisition strategy is required by section 2431a of this title (in this section referred to as a 'covered program'). The SPB shall be the baseline requirements document for funding and staffing sustainment activities in the Department for programs and systems for which a SPB is required.

"(2) PURPOSE.—The SPB for a covered program shall be used within the Department of Defense to govern product support cost, schedule, and performance of the covered program throughout the life-cycle of the program.

"(3) APPLICABILITY.—The SPB for a covered program shall commence when the covered program receives Milestone B approval. However, in the case of a covered program that receives Milestone B approval during the two-year period beginning on the date of the enactment of this section, or that received Milestone B approval before such date, the SPB for the covered program shall be implemented not later than the end of such two-year period.

"(b) DEVELOPMENT.—The SPB for a covered program shall be developed concurrently with the development of the Acquisition Program Baseline for the program.

"(c) PROGRAM SUSTAINMENT USING SPB.—For each covered program, the program manager for the program shall develop, manage, and execute the sustainment of the program throughout its life-cycle through the SPB. The program manager shall carry out such development, management, and execution with direct input from the product support manager for the program.

"(d) PERIODIC REVIEW AND REVISION.—

"(1) MDA.—The milestone decision authority for a covered program shall review and revise, as appropriate, the SPB for the program at each of the following times:

"(A) Milestone B approval.

"(B) Each subsequent milestone.

"(C) Review of any decision to enter into full-rate production.

"(D) Any other time considered relevant by the milestone decision authority, but not less often than once every five years.

"(2) SERVICE CHIEF.—The service chief of the branch of the armed forces with principal authority for a covered program shall conduct a review of the SPB for that program not less often than once every five years.

"(e) SERVICE CHIEF ROLE IN REQUIREMENTS AND FUNDING.—

"(1) Requirements.—The service chief of the branch of the armed forces with principal authority for a covered program shall coordinate with the program manager for the program with respect to requirements specified in the SPB for the program.

"(2) FUNDING.—That service chief shall ensure that, unless otherwise directed, the programming and budgeting plans for the program include funding for the program in accordance with the SPB and, in a case in which funding is not included in the

programming and budgeting plans for the program in accordance with the SPB, shall provide to the milestone decision authority for the program a report documenting the reasons why funding was not so provided.

"(f) MANAGEMENT.—The program manager for a covered program shall be responsible for managing the program in accordance with the SPB for the program. In carrying out that responsibility, the program manager shall develop service-level agreements with major stakeholders.

"(g) DEFINITIONS.—In this section:

"(1) The term 'Milestone B approval' has the meaning provided that term in section 2366(e)(7) of this title.

"(2) The term 'milestone decision authority', with respect to a covered program, means the official within the Department of Defense designated with the overall responsibility and authority for acquisition decisions for the program, including authority to approve entry of the program into the next phase of the acquisition process.

"(3) The term 'service chief' means the Chief of Staff of the Army, the Chief of Naval Operations, the Chief of Staff of the Air Force, or the Commandant of the Marine Corps.".

(b) CLERICAL AMENDMENT.—The table of sections at the beginning of such chapter is amended by inserting after the item relating to section 2335 the following new item:

"2336. Sustainment program baseline.".

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RECOMMENDED REPORT LANGUAGE

SEC. ___. ASSESSMENT OF DEFENSE SUSTAINMENT ENTERPRISE.

This section would direct the Secretary of Defense to conduct a comprehensive assessment of the defense sustainment enterprise, including the national industrial base, and identify alternatives to improve the effectiveness, efficiency, and affordability of the overall defense sustainment enterprise. An interim report on the plan to carry out the assessment would be provided to the congressional defense committees six months after date of enactment; a final report providing the Secretary's findings and conclusions, along with legislative recommendations, would be provided to the congressional defense committees two years after date of enactment.

The committee notes that sustainment currently lacks equal footing with development and procurement during the acquisition phase of a program. The committee further notes that while the Department of Defense must be able to immediately counter multipronged, prolonged threats, the current logistics and sustainment system lacks the agility needed to do so. The committee agrees with the acquisition advisory panel, established under section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), which highlighted in its final report, dated January 15, 2019, a number of concerns related to lack of product support and sustainment management which has led to degraded weapon system readiness, rising sustainment costs, and insufficient supply support. The panel made a number of recommendations, including this section, related to sustainment.

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SEC. ___. ASSESSMENT OF DEFENSE SUSTAINMENT ENTERPRISE.

(a) ASSESSMENT REQUIRED.—The Secretary of Defense shall conduct a comprehensive assessment of defense sustainment enterprise to identify the capability of that enterprise to support the National Defense Strategy and alternatives to improve the effectiveness, efficiency, and affordability of the overall defense sustainment enterprise.

(b) MATTERS TO BE INCLUDED.—As part of the assessment under subsection (a), the Secretary shall consider the following:

(1) The appropriate balance of leadership attention to acquisition and sustainment.

(2) Organizational structures.

(3) The national industrial base (including both organizations organic to the Department of Defense and commercial organizations), including—

(A) the right size and composition of the industrial base regarding organic and commercial technology to take best advantage of all capabilities in view of the National Defense Strategy; and

(B) depot determinations within the industrial base (organic and commercial), focused on warfighting requirements.

(4) Accountability of the Defense Materiel Enterprise for outcome tied to readiness requirements.

(5) Such other matters as are needed to provide a full and accurate assessment of the defense sustainment enterprise.

(c) REPORTS.—

(1) INTERIM REPORT.—Not later than six months after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a

report providing the Secretary's plan for carrying out the assessment required by this section, including identification of the official or officials within the Department of Defense with principal responsibility for conducting the assessment.

(2) FINAL REPORT.—Not later than two years after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a report providing the Secretary's findings and conclusions resulting from the assessment under this section, together with—

(A) the Secretary's plan for any changes to be made within the Department of Defense resulting from those findings and conclusions; and

(B) such recommendations for legislative action relating to the defense sustainment enterprise as the Secretary determines to be needed as a result of those findings and conclusions.

RECOMMENDED REGULATORY REVISIONS

DoD 7000.14-4 Financial Management Regulation
Volume 2a, Chapter 1

0102 FUNDING POLICIES

010201. Criteria for Determining Expense and Investment Costs.

A. No Change.

B. Basic Distinctions Between Expense and Investment Costs. The criteria for cost definitions consider the intrinsic or innate qualities of the item such as durability in the case of an investment cost or consumability in the case of an operating cost and the conditional circumstances under which an item is used or the way it is managed. In all cases where the definitions appear to conflict, the conditional circumstances will prevail. The following guidance is provided to determine whether a cost is either an expense or an investment. All costs are classified as either an expense or an investment.

1. Expenses are the costs incurred to operate and maintain the organization *and systems*, such as ~~personal~~ services, supplies, and utilities. *Operation and Maintenance appropriations may be used to purchase supplies, services, or solutions that are necessary to address these expense needs.*

2. Investments are the costs that result in the acquisition of, *modification* or an addition to, end items. *Research and development efforts are a category of investment costs that can provide new and innovative technologies.* These costs benefit future periods and generally are of a long-term character such as real property and personal property. *Procurement appropriations and Research, Development, Test, and Evaluation appropriations may be used to purchase supplies, services, or solutions that are necessary to address these nonrecurrent investment needs.*

C. Policy for Expense and Investment Costs

1. DoD policy requires cost definition criteria that can be used in determining the content of the programs and activities that comprise the Defense budget. The primary reasons for these distinctions are to allow for more informed resource allocation decisions and to establish criteria for determining which costs are appropriate to the various defense appropriations.

2. The cost definition criteria contained in this policy are only applicable to the determination of the appropriation to be used for budgeting and execution. Cost definitions for accounting purposes are contained in Volume 1.

3. Costs budgeted in the Operation and Maintenance (O&M) and Military Personnel appropriations are considered expenses. Costs budgeted in the Procurement, *Research,*

Development, Test and Evaluation (RDT&E), and Military Construction appropriations are considered investments. Costs budgeted in the Research, Development, Test and Evaluation (RDT&E), Base Realignment and Closure (BRAC), and Family Housing appropriations include both expenses and investments. Definitions for costs within the Defense Working Capital Funds are provided in Chapter 9 and in Section 010214.

4. Items procured from the Defense Working Capital Funds will be treated as expenses in all cases except when intended for use in weapon system outfitting, government furnished material (GFM) on new procurement contracts, or for installation as part of a weapon system modification, major reactivation, or major service life extension.

D. Procedures for Determining Expenses versus Investments. The following criteria will be used to distinguish those types of costs to be classified as expenses from those to be classified as investments for budgeting purposes:

1. Expenses. Expenses are costs of resources consumed in operating and maintaining the Department of Defense. When costs generally considered as expenses are included in the production or construction of an investment item, they shall be classified as investment costs. Military personnel costs are an exception to this rule. The following guidelines shall be used to determine expense costs:

a. Labor of civilian, military, or contractor personnel.
b. Rental charges for equipment and facilities.
c. Food, clothing, and fuel.
d. Supplies and materials designated for supply management of the Defense Working Capital Funds.
e. Maintenance, repair, overhaul, ~~rework of equipment~~.

f. Assemblies, spares and repair parts, ~~and other items of equipment~~ that are not designated for centralized item management and asset control ~~and which have a system unit cost less than the currently approved dollar threshold of $250,000 for expense and investment determinations. This criterion is applied on the basis of the unit cost of a complete system rather than on individual items of equipment or components that, when aggregated, become a system~~. The concept of a system must be considered in evaluating the procurement of an individual end item. A system is comprised of a number of components that are part of and function within the context of a whole to satisfy a documented requirement. ~~In this case, system unit cost applies to the aggregate cost of all components being acquired as a new system.~~

g. Cost of incidental material and items that are not known until the end item is being modified are conditional requirements and are considered expenses because the material is needed to sustain or repair the end item.

h. Engineering efforts to determine what a modification will ultimately be or to determine how to satisfy a deficiency ~~are~~ *may be investments or* expenses. *The non-recurring cost to determine a solution can be an investment funded with RDT&E.*

i. Facilities sustainment, O&M-funded restoration and modernization projects. Planning and design costs are excluded from the cost determination for purposes of determining compliance with the amounts established in 10 U.S.C. 2805 for minor construction projects; however, design costs are not excluded from capitalization.

2. Investments. Investments are costs to acquire capital assets such as real property and equipment. The following criteria shall be used to determine those costs to be classified as investments:

a. All items of equipment, including assemblies, ammunition and explosives, modification kits (the components of which are known at the outset of the modification), spares and repair parts not managed by the Defense Working Capital Funds, that are subject to centralized item management and asset control.

b. All equipment items that are not subject to centralized item management ~~and asset control and have a system unit cost equal to or greater than the currently approved expense and investment dollar threshold of $250,000 (for working capital funds investment criteria see Volume 2B Chapter 9 section 090103C). The validated requirement may not be fragmented or acquired in a piecemeal fashion in order to circumvent the expense and investment criteria policy~~.

c. Construction, including the cost of land and rights therein (other than leasehold). Construction includes real property equipment installed and made an integral part of such facilities, related site preparation, and other land improvements. (See paragraph F below for special guidance concerning real property facilities.)

d. The costs of modification kits, assemblies, equipment, and material for modernization programs, ship conversions, major reactivations, major remanufacture programs, major service life extension programs, and the labor associated with incorporating these efforts into or as part of the end item are considered investments. All items included in the modification kit are considered investment ~~even though some of the individual items may otherwise be considered as an expense~~. Components that were not part of the modification content at the outset and which are subsequently needed for repair ~~are~~ *may be considered* expenses. The cost of labor for the installation of modification kits and assemblies is an investment.

e. Supply management items of the Defense Working Capital Funds designated for weapon system outfitting, government-furnished material on new procurement contracts, or for installation as part of a weapon system modification or modernization, major reactivation or major service life extension.

f. Also considered as investments are support elements such as data, factory training, support equipment and interim contractor support (ICS), which are required to support the procurement of a new weapon system or modification.

3. Conditional Cases. The following are conditional cases that take precedence over the criteria contained in paragraphs 1 and 2 above:

a. A major service-life extension program, financed in procurement, extends the life of a weapon system beyond its designed service life through large-scale redesign or other alteration of the weapon system.

b. Depot and field level maintenance is the routine, recurring effort conducted to sustain the operational availability of an end item. Depot and field level maintenance includes refurbishment and overhaul of end items, removal and replacement of secondary items and components, as well as repair and remanufacturing of reparable components. The maintenance effort may be performed by a depot maintenance activity in the Defense Working Capital Fund, by a direct funded DoD activity, by another government agency, or by a contractor.

c. Maintenance, repair, overhaul, and rework of equipment are funded in the operation and maintenance appropriations. However, maintenance of equipment used exclusively for research, development, test, and evaluation efforts will be funded by the RDT&E appropriations. Continuous technology refreshment is the intentional, incremental insertion of newer technology to improve reliability, improve maintainability, reduce cost, and/or add minor performance enhancement, typically in conjunction with depot or field level maintenance. The insertion of such technology into end items as part of maintenance ~~is~~ *may be* funded by ~~the operation and maintenance~~ *procurement* appropriations. However, technology refreshment that significantly changes the performance envelope of the end item is considered a modification and, therefore, an investment (See section on "Product Improvement" 010212 C. 7.) *All non-recurring engineering effort may be an investment funded with RDTE appropriation.* This definition applies equally to technology insertion by commercial firms as part of contractor logistics support, prime vendor, and similar arrangements and to technology insertion that is performed internally by the Department.

e. Initial outfitting of an end item of investment equipment, such as a ship or aircraft, with the furnishings, fixtures, and equipment necessary to make it complete and ready to operate is a part of the initial investment cost. Material procured through the Defense Working Capital Funds for initial outfitting will be financed by procurement appropriations when drawn from the supply system. This concept includes changes to the allowance lists of ships, vehicles, and other equipment. Changes to allowance lists will be budgeted as investment costs. Procurement appropriations are not required to satisfy initial outfitting requirements if assets are available for issue through

reuse/redistribution programs, such as the Navy's Consumable Asset Reutilization Program.

F. Expense/Investment Cost Determination

<table>
<tr><th colspan="7">Expense/Investment Cost Determination</th></tr>
<tr><th>Is the item a</th><th>If</th><th>Then</th><th>If</th><th>Then</th><th>If</th><th>Then</th></tr>
<tr><td rowspan="3">Centrally Managed/Asset Controlled Item?</td><td rowspan="3">Yes</td><td rowspan="3">Is the item purchased from DWCF?</td><td rowspan="2">Yes</td><td rowspan="2">Is the item part of a full funding effort? *</td><td>Yes</td><td>Classify as Investment</td></tr>
<tr><td>No</td><td>Classify as Expense</td></tr>
<tr><td>No</td><td colspan="2">Classify as Investment</td><td colspan="2" rowspan="3"></td></tr>
<tr><td rowspan="2"></td><td rowspan="2">No</td><td rowspan="2"><s>Is the unit cost more than $250,000?</s></td><td><s>Yes</s></td><td>Classify as Investment</td></tr>
<tr><td><s>No</s></td><td><s>Classify as Expense</s></td></tr>
<tr><td colspan="7">* When intended for use in weapon system outfitting, government furnished material on new procurement contracts or for installation as part of a weapon as part of a weapon system modification, major reactivation or major service life extension.</td></tr>
</table>

010202. Full Funding of Procurement Programs (No Change)

010203. Multiyear Procurement (No Change)

010204. Buy-to-Budget for Acquisition of End Items (No Change)

010205. Transportation (No Change)

010206. Engineering Change Orders (No Change)

010207. Factory Training (No Change)

010208. Interim Contractor Support

Interim contractor support (ICS) is the maintenance and support of a new weapon system provided by a commercial vendor pending transition to organic support. Because ICS is a major component of the initial logistics support of a newly fielded system and integral to program acquisition, ICS funding requirements should be budgeted in the Procurement appropriations. However, ICS is intended to provide support for the brief period between initial item deployment and the permanent organic support. All acquisition strategies should attempt to minimize ICS requirements and duration. ICS will only be funded in Procurement appropriations until the organic support date specified in the acquisition program baseline is

achieved. Continued funding of ICS after the baseline support transition date will be approved on an exception basis.

010209. Commercial Off-the-Shelf (COTS) and Non-Developmental Item (NDI) Procurement

A. Items purchased directly from a commercial source that can be utilized without alteration or modification are classified as COTS or NDI. All COTS and NDIs, including the first article and associated first article acceptance testing ~~should~~ *may* be funded in the Procurement or O&M appropriations, ~~as determined by the Expense and Investment criteria~~. If an end item requires design and development in order to accept the COTS or NDI, or if Operational Test & Evaluation (OT&E) is required to determine military suitability and effectiveness; or if Live Fire Test & Evaluation (LFT&E) is required to determine whether the COT/NDI possesses survivability and lethality characteristics needed by operational forces, then the entire effort is not COTS or NDI, and funding for that effort should be budgeted in RDT&E. If a COTS or NDI is required for RDT&E test purposes, the cost is funded in RDT&E. *RDT&E appropriations may be applied for the analytical nonrecurring cost to find a solution for obsolescence or product improvements.*

B. Where there is an emergent unexpected obsolescence or DMS, the program office may pursue reprogramming or use O&M (Form, Fit, Function Item Replacement), whichever addresses the situation most appropriately.

010210. Spares and Repair Parts

A. This Section provides instructions applicable to funding requests for spares and repair parts procured with direct appropriations in the Procurement Title.

1. Initial Spares and Repair Parts. Initial spares and repair parts will include those repairable components, assemblies, and subassemblies required as initial stockage at all levels including the pipeline to permit fielding of new end items. Whole spare engines will be classified as initial spares through the life of system. Funding will be budgeted based on a first year obligation rate of 92 percent.

2. War Reserve Spares and Repair Parts. War reserve material (WRM) spares and repair parts for initial stockage will be budgeted in replenishment except for whole spare engines in accordance with the above definitions. See Section 010215, Defense Working Capital Funds - War Reserve Materiel, for additional budgeting WRM policies.

B. The Operation and Maintenance (O&M) accounts will finance the purchase of depot level reparables (DLRs) and consumable repair parts, primarily through the Defense Working Capital Fund (DWCF), for maintenance of all Class IX equipment (excluding medical peculiar repair parts).

C. Spares budgeting can be aggregated by weapon system except for Selected Acquisition Report (SAR) systems.

010211. Direct and Reimbursable Budget Plans. (No Change)

010212. Budgeting for Information Technology and Automated Information Systems

A. Information Technology and Automated Information Systems that are not embedded in weapons systems and/or major end item procurements are budgeted according to the investment and expense criteria (see 010201) and the appropriation or fund's purpose.

B. The correct appropriation for budgeting an IT effort is dependent on the activity and the underlying tasks that make up the IT effort. *IT software development, provided there is no change in the congressionally approved purpose of the appropriation, may be properly budgeted in (and subsequently funded through) RDT&E, Procurement, or O&M.* RDT&E activities and Working Capital Fund activities follow unique procedures as noted in the following paragraphs. All other activities budget for IT efforts based solely on the underlying purpose for the IT effort.

1. An IT effort may require funding for more than one appropriation. The underlying purpose for each discrete task within an IT effort determines the correct appropriation for budgeting of that task. ~~An effort~~ *An IT software development effort* that is so broadly defined that it contains separate tasks appropriate to budgeting in different appropriations ~~should be separated into discrete tasks, each of which is budgeted in the correct appropriation.~~ *may be properly budgeted in (and subsequently funded through) RDT&E, Procurement, or O&M.*

2. The following guidelines are provided to help determine which appropriation to use:

3. RDT&E appropriations: Development, test and evaluation requirements, including designing prototypes and processes, should be budgeted in the RDT&E appropriations. The RDT&E funds should be used to develop major upgrades increasing the performance envelope of existing systems, purchase test articles, and conduct developmental testing and/or initial operational test and evaluation prior to system acceptance. In general, all developmental activities involved in bringing a program to its objective system are to be budgeted in RDT&E.

a. Reaching the objective system, as defined in the requirements documents, is a critical determinate. Some software programs, particularly those following a spiral or incremental development pattern, may be approved for initial fielding even though the early capability is below the objective system requirements. The follow-on development and test activities required to reach the objective system performance will be budgeted in RDT&E.

b. Commercial-off-the-shelf (COTS) systems that require engineering design, integration, test, and evaluation to achieve the objective performance will be budgeted in RDT&E.

c. The acquisition, operation and maintenance of IT systems that are used exclusively to support RDT&E activities will be budgeted and funded within an RDT&E appropriation.

4. Procurement appropriations: Acquiring and deploying a complete system ~~with a cost of $250,000 or more~~ is an investment and ~~should~~ *may* be budgeted in a Procurement appropriation. Complete system cost is the aggregate cost of all components (e.g., equipment, integration, engineering support and software) that are part of, and function together, as a system to meet an approved documented requirement. ~~For modification efforts, only the cost of the upgrade (e.g., new software, hardware, and technical assistance) is counted towards the investment threshold.~~ The total cumulative cost of the system is not considered when deciding what appropriation to use to fund modernization.

a. Procurement of fully developed and tested modification kits and associated installation, including technical assistance is financed from Procurement appropriations. Equipment purchased after successful system testing and a favorable fielding decisions is funded with procurement dollars.

b. Proprietary software carries a copyright from the vendor that prohibits duplication or modification. Essentially, the purchaser is buying a license from the vendor to use the software on a particular system. Proprietary software, *depending on acquisition details, may be* ~~is an investment, subject to the expense-investment criteria, unless it is financed on an "annual fee" basis. In the latter case, it is an expense item~~ properly financed in RDT&E, *Procurement,* or O&M.

5. O&M appropriations: Expenses incurred in continuing operations and current services are budgeted in the O&M appropriations. ~~Modernization costs under $250,000 are considered expenses, as are one-time projects such as developing planning documents and studies.~~

a. Software releases categorized as iterations on the basic release and not involving significant performance improvements or extensive testing are considered a maintenance effort. Minor improvements in software functionality which are accomplished during routine maintenance may also be O&M funded.

b. Items purchased from a commercial source that can be used without modification (e.g., COTS and nondevelopmental items) will be funded in ~~either~~ the Procurement ~~or O&M~~ appropriations~~, as determined by the expense and investment criterion~~.

6. The IT systems developed and acquired through the Defense Working Capital fund will be reflected in the Capital Budget if the system is $100,000 or more. Systems costing less than $100,000 ~~are~~ *may be* funded through the Operating Budget.

7. Capitalization of Software Cost. For accounting purposes, the total cost of software should be capitalized when the total cost of the system exceeds the Department's capitalization threshold amount, which is currently $100,000. Capitalization of software is not dependent on the appropriation used to fund its purchase or development. Further information on capitalization may be found in the DoD FMR, Volume 4, Chapter 6, paragraph 060210.

010213. Research, Development, Test and Evaluation (RDT&E) - Definitions and Criteria

A. Definitions. The term "research and development (R&D)" is intended broadly to include the work performed by a government agency or by private individuals or organizations under a contractual or grant arrangement with the government. It includes R&D in all fields, including the physical sciences, engineering, etc.

1. Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied.

2. Development is systematic use of the knowledge and understanding gained from research, for the production of useful materials, devices, systems, or methods, including the design and development of prototypes, *modifications* and processes.

B. General Criteria. When, after consideration of the following criteria, there is doubt as to the proper assignment of costs between appropriations, the issue should be resolved in favor of using RDT&E funding. In general, the types of costs to be financed by RDT&E and related appropriations are:

1. RDT&E Appropriations

a. RDT&E will finance research, development, test and evaluation efforts performed by contractors and government installations, including procurement of end items, weapons, equipment, components, materials and services required for development of equipment, material, or computer application software; its Development Test and Evaluation (DT&E); and its Operational Test and Evaluation (OT&E) as provided for in paragraph C.5. (Test Articles and Test Support) below.

b. The operation of R&D installations and activities engaged in the conduct of R&D programs, including direct and indirect efforts, expense and investment costs.

c. The acquisition or construction of industrial facilities costing less than $750,000 at government owned, government operated (GOGO) facilities under the criteria of DoD Directive 4275.5 as provided for under 10 U.S.C. 2805 (unspecified minor construction). Use of RDT&E funds for acquisition and construction at contractor owned or contractor operated government facilities is authorized under 10 U.S.C. 2353, Contracts; Acquisition, Construction, or Furnishings of Test Facilities and Equipment.

2. Related Appropriations

a. All construction at R&D installations and activities other than that covered above will be funded in the Military Construction appropriations.

b. Equipment and material approved for production and intended for operational use or inventory upon delivery will be funded in the Procurement appropriations. Product improvement ~~within the current performance envelope on~~

~~systems in production, will~~ *may* be funded in the Procurement appropriations ~~as long as no development or operational tests by an independent operational test agency are required~~.

c. Family housing construction, operation and maintenance at R&D installations and activities will be funded in the Family Housing appropriations.

d. Expenses of Headquarters R&D management, organizational management analyses, test and evaluation for system sustainment personnel and command support, ~~and product improvement within the current performance envelope for systems out of production~~ will be funded in the Operation and Maintenance (O&M)

C. Specific Determinations. Additional details on the determination of proper funding for specific items or efforts are provided in the following paragraphs.

1. Organizational Funding Criteria (No Change)

2. Facilities Construction and Modification (No Change)

3. Equipment (No Change)

4. Establishment of Pilot Line and Tooling Requirements (No Change)

5. Test Articles and Test Support

a. (1) (2) (3) (No Change)

b. Conduct of testing that is not associated with RDT&E, or testing conducted after fielding or acceptance for operational use, such as the examples noted below, will be financed in the Procurement or O&M appropriations, as appropriate.

(1) Acceptance, quality control and surveillance testing of articles obtained for other than RDT&E purposes.

(2) Routine testing in connection with logistic support.

(3) Testing related to the operation and maintenance of equipment and material acquired for use under appropriations other than RDT&E.

(4) Testing required to prove the capability of facilities to produce items which have been approved for production will be funded by procurement as part of the initial acquisition cost.

c. The acquisition of commercial or nondevelopmental items for testing and operational evaluation that do not require RDT&E engineering, design or integration effort will be financed by ~~O&M or~~ Procurement appropriations ~~(as determined by the Expense and Investment criteria)~~. O&M appropriations will finance personnel and command support costs for test and evaluation of commercial and nondevelopmental

items by field units for doctrine, operational, or organizational purposes. If the commercially available item is modified and requires testing prior to approval for service use or inventory it is to be funded in RDT&E as are all developmental items.

d. Articles (including end items, weapons, equipment, major test vehicles such as ballistic missile boosters or upper stages, components and materials) of types regularly procured to meet established general requirements such as operational training, operational use, or inventory which are assigned or allocated on a priority basis for use in support of approved R&D programs and which are not consumed in testing, may be financed by Procurement appropriations ~~using the expense and investment criteria~~. In addition, excess items or O&M-that can be made available on a priority basis from existing inventory will be reassigned for use in R&D test and evaluation programs without reimbursement. However, all items, expected to be consumed in R&D test and evaluation will be financed by RDT&E appropriations.

e. Consumable rounds of ammunition or rounds of similar tactical missiles otherwise procured in quantity for inventory under existing procedures, may be issued on a priority basis for use in R&D testing without reimbursement.

f. The acquisition of test articles ~~will~~ *may* be financed by ~~O&M or~~ Procurement appropriations (~~as determined by the Expense and Investment criteria~~), and personnel and command support costs will be financed by O&M appropriations for all test and evaluation (T&E) subsequent to acceptance for operational use and T&E to demonstrate the operational employment or develop operational tactics (i.e., subsequent to RDT&E efforts).

6. Modification and Refurbishment of Test Articles

a. Costs associated with modifying or reconfiguring an existing item for R&D test purposes will be funded in RDT&E. When an item that has been diverted from another use is not consumed in R&D testing, any costs necessary to return the item to serviceable condition or to its pre-existent configuration will be financed in RDT&E.

b. If an article initially acquired with RDT&E funds as part of an RDT&E test effort is still available at the completion of the test program, it may be reassigned for operational use or inventory. The cost to modify such an article for operational use would be borne by the Procurement and O&M appropriations, as appropriate.

7. Product Improvement

a. "Product improvement" of major end items and major components of major end items currently in production or in the operational inventory, is subject to the following:

(1) ~~Redesign of an item to increase the current performance envelope, including related development, test and evaluation effort, will be financed in RDT&E.~~ *RDT&E appropriations may be applied for the analytical nonrecurring cost to find a solution for obsolescence or product improvements and conduct testing of solution.*

(2) The procurement appropriation may be applied for the recurring cost of the investment of the end item, such as scheduled tech refresh and modification kits.

(3) Where there is an emergent unexpected obsolescence or DMS, the program office may pursue reprogramming or use O&M (Form, Fit, Function Item Replacement), as appropriate.

~~(2) Engineering services or related manufacturing efforts applied to an item currently in production to extend its useful military life within the current performance envelope should be funded by Procurement appropriations as long as no developmental testing (DT) or operational test and evaluation (OT&E) by an independent operational test agency is required. If DT or OT&E by an independent operational test agency is required, RDT&E finances the improvement. The phrase "an item currently in production" implies that the item has end item procurement funding in the year the product improvement effort is to take place.~~

~~(3) Engineering services or related manufacturing efforts applied to an out-of-production, but still operational item to extend its useful military life within the current performance envelope should be financed by O&M appropriations as long as no developmental testing (DT) or operational test and evaluation (OT&E) by an independent operational test agency is required. If DT or OT&E is required by an independent operational test agency, RDT&E finances the improvement.~~

~~(4) In both cases (2) and (3) above, the determination that the improvement is "within the current performance envelope" and that "no development testing (DT) or operational test and evaluation (OT&E) by an independent operational test and evaluation agency is required" should be determined after formal coordination with the Director, Operational Test and Evaluation~~.

b. While existing off-the-shelf equipment may be procured with Procurement funds, items that require engineering design, integration, test, or evaluation effort ~~shall be procured with RDT&E funds in sufficient numbers to support such effort.~~ *may apply RDT&E for the analytical nonrecurring cost to find a solution and procurement funds to procure the item. Where there is an emergent unexpected obsolescence or DMS, the program office may*

pursue reprogramming or use O&M (Form, Fit, Function Item Replacement), whichever addresses situation most appropriately.

c. Costs of fully developed and tested modification kits and associated installation costs should be financed from Procurement appropriations. If DT or OT&E by an independent operational test agency is required, RDT&E finances the RDT&E effort and the kits required for RDT&E testing. Procurement funds would then be used to procure the follow-on kits.

d. Aircraft engine component improvement costs are budgeted in the RDT&E appropriations to provide for continuing improvements in the aircraft engines in the areas of reliability, maintainability, durability, correction of Service-revealed deficiencies, safety of flight, time-between-overhaul, etc. "Component Improvement" is established at the point in time when:

(1) There has been a Government acceptance of the first procurement funded engine, and

(2) The engine has successfully completed stringent qualification or verification testing to demonstrate initial production suitability subject to:

(a) Compliance with contractual specifications, performance guarantees and military specifications, as applicable to individual Service requirements;

(b) Completion of endurance testing representative of the anticipated Service use to include completion of specified post test inspections, certification, and penalty runs;

(c) Demonstration of prescribed performance capability; and

(d) Accomplishment of prescribed durability, reliability, and environmental testing.

8. Ships and Ship-type Vehicles (No Change)

9. Space Systems (No Change)

10. Training Devices. A training device is composed of components and software that have been designed or modified to demonstrate or illustrate a concept or simulate an operational circumstance or environment. The initial or prototype training device and all its support costs through service acceptance for operational use will be funded in RDT&E. RDT&E will not fund beyond the initial system unless more than one full system is required to demonstrate the training device performance. The initial or prototype training device that employs new or off-the-shelf computers and system components, but has training system unique software and interface components, will be developed and procured with RDT&E funds. Typically, these training devices have small quantity requirements and the initial or

prototype device is used for operational training. Modifications or updates to existing training devices will normally be funded in the applicable Procurement or O&M appropriation, ~~subject to the expense and investment criteria~~. Any necessary development effort or *nonrecurring engineering to determine and test the solution* for these modifications or updates will be funded in RDT&E.

11. Joint Test and Evaluation (No Change)

12. Manufacturing Technology (No Change)

13. Development Efforts Related to Future Leased Services (No Change)

14. Subsystem Integration into Weapon Systems (No Change)

15. Engineering change orders (No Change)

010214 – 010226 (No Change)

0103-0110 (No Change)

RECOMMENDED REGULATORY CHANGES

FAR -- Part 39
Acquisition of Information Technology

39.001 -- Applicability.

This part applies to the acquisition of information technology by or for the use of agencies except for acquisitions of information technology for national security systems. However, acquisitions of information technology for national security systems shall be conducted in accordance with 40 U.S.C. 11302 with regard to requirements for performance and results-based management; the role of the agency Chief Information Officer in acquisitions; and accountability. These requirements are addressed in OMB Circular No. A-130. ***This part does not apply to the acquisition of cloud services or similar consumption-based solutions (see subpart 37.1).***

FAR -- Part 37
Service Contracting

37.101 -- Definitions.

As used in this part—

"Adjusted hourly rate (including uncompensated overtime" is the rate that results from multiplying the hourly rate for a 40-hour work week by 40, and then dividing by the proposed hours per week which includes uncompensated overtime hours over and above the standard 40-hour work week. For example, 45 hours proposed on a 40-hour work week basis at $20 per hour would be converted to an uncompensated overtime rate of $17.78 per hour ($20.00 x 40/45 = $17.78).

"Child care services" means child protective services (including the investigation of child abuse and neglect reports), social services, health and mental health care, child (day) care, education (whether or not directly involved in teaching), foster care, residential care, recreational or rehabilitative programs, and detention, correctional, or treatment services.

"Consumption-based solution" means any combination of hardware/equipment, software, and labor/services that together provide a capability that is metered and billed based on actual usage and predetermined pricing per resource unit, and includes the ability to rapidly scale capacity up or down.

"Nonpersonal services contract" means a contract under which the personnel rendering the services are not subject, either by the contract's terms or by the manner of its administration, to the supervision and control usually prevailing in relationships between the Government and its employees.

"Service contract" means a contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply. A service contract may be either a nonpersonal or personal contract. It can also cover services performed by either professional or nonprofessional personnel whether on an individual or organizational basis. Some of the areas in which service contracts are found include the following:

(1) Maintenance, overhaul, repair, servicing, rehabilitation, salvage, modernization, or modification of supplies, systems, or equipment.

(2) Routine recurring maintenance of real property.

(3) Housekeeping and base services.

(4) Advisory and assistance services.

(5) Operation of Government-owned equipment, real property, and systems.

(6) Communications services.

(7) Architect-Engineering (see Subpart 36.6).

(8) Transportation and related services (see Part 47).

(9) Research and development (see Part 35).

"Uncompensated overtime" means the hours worked without additional compensation in excess of an average of 40 hours per week by direct charge employees who are exempt from the Fair Labor Standards Act. Compensated personal absences such as holidays, vacations, and sick leave shall be included in the normal work week for purposes of computing uncompensated overtime hours.

37.102 -- Policy.

(a) Performance-based acquisition (see subpart 37.6) is the preferred method for acquiring services (Public Law 106-398, section 821). When acquiring services, including those acquired under supply contracts or orders, agencies must--

(1) Use performance based acquisition methods to the maximum extent practicable, except for—

(i) Architect-engineer services acquired in accordance with 40 U.S.C. 1101 *et seq.* (see part 36);

(ii) Construction (see part 36);

(iii) Utility services (see part 41); or

(iv) Services that are incidental to supply purchases.

(2) Use the following order of precedence (Public Law 106-398, section 821(a));

(i) A firm-fixed price performance-based contract or task order.

(ii) A performance-based contract or task order that is not firm-fixed price.

(iii) A contract or task order that is not performance-based.

(b) Agencies shall generally rely on the private sector for commercial services (see OMB Circular No. A-76, Performance of Commercial Activities and Subpart 7.3).

(c) Agencies shall not award a contract for the performance of an inherently governmental function (see Subpart 7.5).

(d) Non-personal service contracts are proper under general contracting authority.

(e) Agency program officials are responsible for accurately describing the need to be filled, or problem to be resolved, through service contracting in a manner that ensures full understanding and responsive performance by contractors and, in so doing, should obtain assistance from contracting officials, as needed. To the maximum extent practicable, the program officials shall describe the need to be filled using performance-based acquisition methods.

(f) Agencies shall establish effective management practices in accordance with Office of Federal Procurement Policy (OFPP) Policy Letter 93-1, Management Oversight of Service Contracting, to prevent fraud, waste, and abuse in service contracting.

(g) Services are to be obtained in the most cost-effective manner, without barriers to full and open competition, and free of any potential conflicts of interest.

(h) Agencies shall ensure that sufficiently trained and experienced officials are available within the agency to manage and oversee the contract administration function.

(i) Agencies shall ensure that service contracts that require the delivery, use, or furnishing of products are consistent with part 23.

(j) Consumption-based solutions.

(1) Federal and agency-specific regulations, policies, and guidance regarding service contracts are not applicable to contracts for consumption-based solutions or hybrid contracts when the primary purpose is to procure consumption-based solutions.

(2) New (including improved) related services or features may be added to contracts for consumption-based solutions at the discretion of the contracting officer without conducting a new competition, provided there is no change to the performance period and the amount of these new services or features does not exceed 25 percent of the original contract ceiling.

37.110 -- Solicitation Provisions and Contract Clauses.

(a) The contracting officer shall insert the provision at 52.237-1, Site Visit, in solicitations for services to be performed on Government installations, unless the solicitation is for construction.

(b) The contracting officer shall insert the clause at 52.237-2, Protection of Government Buildings, Equipment, and Vegetation, in solicitations and contracts for services to be performed on Government installations, unless a construction contract is contemplated.

(c) The contracting officer may insert the clause at 52.237-3, Continuity of Services, in solicitations and contracts for services, when --

(1) The services under the contract are considered vital to the Government and must be continued without interruption and when, upon contract expiration, a successor, either the Government or another contractor, may continue them; and

(2) The Government anticipates difficulties during the transition from one contractor to another or to the Government. Examples of instances where use of the clause may be appropriate are services in remote locations or services requiring personnel with special security clearances.

(d) See 9.508 regarding the use of an appropriate provision and clause concerning the subject of conflict-of-interest, which may at times be significant in solicitations and contracts for services.

(e) The contracting officer shall also insert in solicitations and contracts for services the provisions and clauses prescribed elsewhere in 48 CFR Chapter 1, as appropriate for each acquisition, depending on the conditions that are applicable.

(f) The contracting officer shall insert the clause at 52.237-TBD1, Reporting on Consumption-Based Solutions, and the clause at 52.237-TBD2, Prices and New Services for Consumption-Based Solutions, in solicitations and contracts for consumption-based solutions unless an individual deviation is approved.

52.237-TBD1 – Monitoring and Using Consumption-Based Solutions.

(a)The Contractor shall measure/meter consumption of awarded line items and their associated price, and provide reports of such consumption to the Contracting Officer no less than monthly. More frequent reporting, up to and including real-time consumption information, is preferred when available through an online user console or similar capability.

The Contractor shall notify the Contracting Officer when consumption reaches 75 percent and 90 percent of the contract funded amount.

(b) The Government will not be obligated to pay the Contractor any amount in excess of the contract funded amount, and the Contractor shall not be obligated to continue performance if to do so would exceed the contract funded amount.

52.237-TBD2 – Prices and New Services for Consumption-Based Solutions.

(a) If during contract performance the Contractor lowers prices in its publicly-available commercial catalog for any awarded services or features, Contractor shall within 45 calendar days notify the Contracting Officer and begin using the lower price(s) on this contract or order, taking into account any discounts, premiums, or fees consistent with the terms and conditions of the contract, unless specifically negotiated otherwise. The Contractor may offer new or additional discounts at any time.

(b) When new (including improved) services or features are made publicly available to the commercial marketplace and those services are not already included in this contract or order, the Contractor must notify the Contracting Officer within 30 calendar days. At its discretion, the Contractor may also seek to incorporate new services into the contract or order in advance of availability to the commercial marketplace. The Contracting Officer must approve incorporation of any new services or features into the contract or order. Any discounts, premiums, or fees shall equally apply to new services or features, unless specifically negotiated otherwise. The price incorporated into the contract or order for new services or features shall not be higher than the price that is publicly-available in the commercial marketplace, plus any applicable discounts, premiums or fees.

(End of Clause)

FAR -- Part 16
Types of Contracts

Subpart 16.2 -- Fixed-Price Contracts

16.201 -- General.

(a) Fixed-price types of contracts provide for a firm price or, in appropriate cases, an adjustable price. Fixed-price contracts providing for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances. The contracting officer shall use firm-fixed-price~~, or~~ fixed-price with economic price adjustment***, or fixed-price resource units*** contracts when acquiring commercial items, except as provided in 12.207(b).

(b) Time-and-materials contracts and labor-hour contracts are not fixed-price contracts.

16.208 -- Fixed-Price Resource Units Contracts.

(a) Description. A fixed-price resource units contract establishes a fixed price per unit of measure. Unless otherwise specified in the contract, the unit prices are subject to downward adjustment only, with such adjustments based on changes to the contractor's commercial catalog pricing (see 52.237-TBD2). The contracting officer shall use fixed-price resource units contracts when acquiring consumption-based solutions (see Subpart 37.1).

(b) Application.

(1) A fixed-price resource units contract is suitable for use when acquiring consumption-based solutions, and may be combined with other contract types under appropriate circumstances as determined by the contracting officer.

(2) A contract ceiling amount is established at contract award based on the government estimate of the services to be consumed (including all options) and the unit prices awarded. Consumption of individual resource line items is metered, totaled, and invoiced monthly unless otherwise specified in the contract. The contracting officer may increase the contract ceiling by up to 25 percent based on actual consumption trends or the addition of new services provided funding is available.

(3) The contract may be incrementally funded, and consumption shall be closely monitored to ensure the funded amount is not exceeded (see 52.237-TBD1).

(c) Limitations. None.

FAR -- Part 12
Acquisition of Commercial Items

Subpart 12.2 -- Special Requirements for the Acquisition of Commercial Items

12.207 -- Contract Type.

(a) Except as provided in paragraph (b) of this section, agencies shall use firm-fixed-price ~~contracts, or~~ fixed-price ~~contracts~~ with economic price adjustment***, or fixed-price resource units contracts*** for the acquisition of commercial items.

…

(d) The contract types authorized by this subpart may be used in conjunction with an award fee and performance or delivery incentives when the award fee or incentive is based solely on factors other than cost (see 16.202-1 and 16.203-1).

(e) Use of any contract type other than those authorized by this subpart to acquire commercial items is prohibited.

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Section 3
IT Procurement

DoD should revise its acquisition processes to more closely align with commercial IT markets and optimize its procedures to readily obtain the spectrum of IT services, products, and solutions needed for its mission.

RECOMMENDATIONS

Rec. 43: Revise acquisition regulations to enable more flexible and effective procurement of consumption-based solutions.

Rec. 44: Exempt DoD from Clinger–Cohen Act Provisions in Title 40.

Rec. 45: Create a pilot program for contracting directly with information technology consultants through an online talent marketplace.

INTRODUCTION

Information technology (IT) products, services, and solutions in DoD are a nearly insular ecosystem, largely segregated from commercial IT markets. In 2017, the largest providers of IT, systems integration, and related professional services to DoD were traditional defense companies—for example, Leidos, Lockheed Martin, and Northrup Grumman—and not prominent commercial IT companies.[1] Those IT companies with large federal government contracts such as Hewlett Packard Enterprise (now DXC Technology), IBM, and Dell have segregated their government work into divisions or business units explicitly focused on the federal IT space.[2] Due to the limited interaction between commercial and DoD IT markets, the two now operate at substantially different paces of technological advancement. Because the commercial IT market has outpaced the DoD market for decades, DoD regularly acquires outdated and inferior technology, often at higher prices and slower rates. DoD's slower acquisition pace has a direct effect on warfighting capability. In a defense era defined by technological edge, warfighters and their support commands are often operating with less functionality.

This market segregation is caused by the vastly different ways in which DoD and the wider federal government acquire IT. Rather than operating in the commercial market of readily available options, DoD often creates detailed, intricate requirements for its IT systems and services. The process of requirements development alone is lengthy and is coupled with a litany of other complicated, burdensome processes and procedures associated with IT contracts. DoD must account for a series of unique concerns not associated with commercial practices—supply chain sourcing restrictions, socioeconomic principles, export controls, and competition rules are only a few. DoD IT has long been accused of being obsolete on delivery, a problem not encountered with such prevalence in the commercial market.[3] Through its complicated requirements and its burdensome processes, DoD IT acquisition also creates numerous barriers to entry for vendors. In comments regarding its recent decision to drop out of the Joint Enterprise Defense Infrastructure (JEDI) competition, Google stated that "there were portions of the contract that were out of scope with our current government certifications."[4] This is only one example of a capable vendor opting out of the defense IT market due to specialized government requirements.

Much of the IT market segregation is self-inflicted by DoD, and other aspects are imposed by federal requirements. DoD remains bound by the rules of federal acquisition, but it can revise its processes to more closely align with commercial IT markets. For example, rather than developing defense-unique technical requirements by default, DoD could more frequently accept an 80 percent solution provided by readily available commercial IT with little or no customization. DoD could also consider approaches that are more outcome-based, less process-driven, and informed by IT expertise in the commercial

[1] "2017 Top 100," Washington Technology, accessed November 6, 2018, https://washingtontechnology.com/toplists/top-100-lists/2017.aspx.
[2] "Top 25 Enterprise IT Providers to Government," FedScoop, August 30, 2017, accessed November 6, 2018, https://www.fedscoop.com/federal-it-top-25/federal-it-top-25-full-list/.
[3] "You're Sinking My IT Ship: Why Continually Treating IT Like a Battleship is a Problem," Matt Micene, Technically Speaking, October 11, 2012, accessed November 6, 2018, http://www.dlt.com/blog/2012/10/11/youre-sinking-ship-continually-treating-battleship-problem/.
[4] "Google will not bid for the Pentagon's $10B cloud computing contract, citing its 'AI Principles'," Catherine Shu, TechCrunch, October 8, 2018, accessed November 6, 2018, https://techcrunch.com/2018/10/08/google-will-not-bid-for-the-pentagons-10b-cloud-computing-contract-citing-its-ai-principles/.

market. DoD must acknowledge that its acquisition system suffers from too many processes and procedures that are obsolete, redundant, or unnecessary. It is especially vital that IT acquisitions move quickly enough to keep pace with commercial innovation. A complete merging of the DoD and commercial IT markets is probably unrealistic; however, increased flow between the two is a reasonable and necessary goal.

The recommendations in this section offer strategies for transforming DoD's IT acquisition from both the top down and bottom up. Strategic revisions to how DoD understands and acquires IT are integrated with smaller-scale changes that restore efficiency to routine processes that have become bogged down by layers of bureaucracy. Recommendation 43 resolves a fundamental tension between the 21st century marketplace and an acquisition system that forces IT and other purchases into one of two outdated categories of transaction: supplies or services. This recommendation proposes definitions, processes, contract types, and funding approaches that align with the new category of *consumption-based solutions*, acknowledging that modern capabilities are increasingly a combination of supplies and services that are sold on a consumption basis (e.g., cloud services, everything as a service [XaaS]).

Recommendation 44 addresses reducing the layers of documentation and approvals that make IT acquisition a slow, frustrating, and often inefficient process. Exempting DoD from the Clinger–Cohen Act (CCA) provisions removes an outdated process that adds little value to the enterprise, and it provides DoD the opportunity to simplify and update its practices. This recommendation has even greater effect when combined with other panel recommendations detailed in Section 7 that simplify contracting processes for all acquisitions.

A third recommendation encourages both DoD and the federal government at large to better use IT expertise from the commercial sector. Recommendation 45 details a pilot program that would allow the federal government to contract directly with independent IT consultants through an expedited process better aligned with commercial best practices. This new authority would improve the speed, cost, and quality of resources that support highly complex IT solutions.

None of these actions alone will solve the challenges associated with the above-described IT market segregation; however, together they offer a series of changes that can better align DoD and commercial practices. They also reflect the sentiment expressed by Congress in the Conference Report to the FY 2019 NDAA:

> *The conferees agree with the report's emphasis on shifting the Department of Defense's treatment of software as solely a development activity to understanding that it is enduring and that, therefore, traditional models of hardware sustainment are not suited to the treatment of software in the acquisition process. …[T]he conferees also encourage the Department to continue to engage the private sector for their best practices and views regarding sustainable software acquisition approaches.*[5]

[5] Conference report to accompany the FY 2019 NDAA (H. Rept. 115-874), July 25, 2018, 912, accessed November 6, 2018, https://www.gpo.gov/fdsys/pkg/CRPT-115hrpt874/pdf/CRPT-115hrpt874.pdf

By ridding itself of outdated acquisition practices and optimizing useful tools and procedures, DoD need not suffer the consequences of substandard IT found in its ecosystem.

RECOMMENDATIONS

Recommendation 43: Revise acquisition regulations to enable more flexible and effective procurement of consumption-based solutions.

Problem

The FAR unrealistically categorizes all purchases as either *supplies* or *services*. This distinction, established decades ago, is too rigid to effectively procure modern technology solutions with evolving delivery models. Solutions include hardware, software, and labor/services that together provide a seamless capability. Acquisition professionals struggle to determine whether certain solutions should be procured as a supply or a service, often leading to contracts that are neither optimized nor appropriate for the solution being acquired.

The problem is more pronounced for solutions sold on a consumption basis, such as cloud services. Consumption pricing is common in the commercial IT market and for consumer technology such as mobile phones, for which customers are billed strictly for usage or billed a fixed amount plus overage charges. This payment model is difficult to execute with existing FAR contract types and government fiscal rules. DoD needs laws, regulations, and policies that enable effective IT solution procurement today and remain flexible enough to adapt to dynamically evolving future solutions.

Cloud computing and IT solutions are the current acquisition challenges discussed in detail herein, but the specific recommendations to address these challenges are broadly applicable to other consumption-based solutions in the marketplace.

Background

For decades, DoD and the federal government have acknowledged the need to reform and modernize the IT acquisition process, but large-scale reform has proven challenging. The FY 2010 NDAA required the Secretary of Defense to "develop and implement a new acquisition process for information technology systems…and Report to Congress…on the new acquisition process developed."[6] DoD submitted the required report to Congress in November 2010, titled *A New Approach for Delivering Information Technology Capabilities in the Department of Defense*; however, many of the reforms described in the report were not fully implemented or not implemented at all. The failure to reform IT acquisition processes creates a compounding effect as technology continues to evolve rapidly and DoD struggles to acquire the technologies that power modern solutions.

Cloud services have become the basic underpinning of most new IT systems, but the transition to cloud computing has been more of an evolution than a revolution. Beginning around 2006, back-end IT infrastructure became commoditized as a shared resource, and over time that model gravitated to the applications employed by end users.[7] Cloud-based end-user applications are known as software as a

[6] Section 804(b) of FY 2010 NDAA, Pub. L. No. 111–84, 123 Stat. 2402 (2009).
[7] "Business Report: Who Coined 'Cloud Computing'," Antonio Regalado, MIT Technology Review, October 31, 2011, accessed October 25, 2018, https://www.technologyreview.com/s/425970/who-coined-cloud-computing/.

service (SaaS), wherein the end user pays a fee to use the system and has no responsibility—or even knowledge of—the underlying IT that makes the system work. Other cloud offerings provide ready-made IT infrastructure, essentially building blocks on which developers can quickly install or build their own applications. According to cloud procurement expert Michael Garland, "The advent of cloud computing has done for software developers what the medieval inn did for early European travelers—it has relieved them of the obligation to pack and drag along all their own stuff."[8]

The National Institute for Standards and Technology has published several foundational papers on cloud computing, including one that provides the following authoritative definition:[9]

> *Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model is composed of five essential characteristics, three service models, and four deployment models.*

The government was slower to adopt cloud computing than commercial industry, but eventually produced a substantial body of policy and guidance, starting in February 2011 when then-U.S. Federal Chief Information Officer Vivek Kundra published the Federal Cloud Computing Strategy, commonly known as the *Cloud First* policy:[10]

> *This policy is intended to accelerate the pace at which the government will realize the value of cloud computing by requiring agencies to evaluate safe, secure cloud computing options before making any new investments.*

In December 2011, Office of Management and Budget (OMB) expanded its Cloud First policy by releasing a memo addressing the security authorization process for cloud computing services. The policy requires all federal agencies to use the Federal Risk and Authorization Management Program (FedRAMP) for cloud services procurement. According to its homepage, "FedRAMP facilitates the shift from insecure, tethered, tedious IT to secure, mobile, nimble, and quick IT."[11] FedRAMP identifies security requirements as a baseline for vetting cloud services and requires cloud service providers (CSPs) to comply with those requirements, including routing network traffic through a trusted internet connection. FedRAMP also provides a series of documents, templates, and training to be leveraged by agencies and CSPs. Key documents include the Security Assessment Framework (SAF), Security Controls (low, moderate, and high), and CSP Authorization Playbook.[12]

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[8] "It's time to fix our cloud procurement problems," Michael Garland, FCW, accessed October 25, 2018, https://fcw.com/articles/2018/06/04/comment-garland-clould-procurement.aspx.
[9] National Institute of Standards and Technology, *The NIST Definition of Cloud Computing, NIST SP 800-145,* September 2011, accessed October 25, 2018, https://nvlpubs.nist.gov/nistpubs/legacy/sp/nistspecialpublication800-145.pdf. Note: Definition truncated for brevity.
[10] Vivek Kundra, *Federal Cloud Computing Strategy,* February 2011, accessed October 25, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/egov_docs/vivek-kundra-federal-cloud-computing-strategy-02142011.pdf.
[11] FedRamp," GSA, accessed October 25, 2018, https://www.fedramp.gov/.
[12] FedRamp: Documents," GSA, accessed October 25, 2018, https://www.fedramp.gov/documents/.

FedRAMP has made two major revisions to its Control Specific Contract Clauses, one in June 2014 and one in December 2017.[13] FedRAMP provides a thorough security vetting process, but it does not include a full set of contract terms and conditions. The program provides only provisional approval—agencies must make the final authorization determination and may have additional requirements beyond the FedRAMP baseline.

Currently, OMB is making the first major update to its Cloud First policy in more than 7 years.[14] The new strategy, preliminarily coined Cloud Smart, is intended to address lessons learned from the past few years of government experience attempting to migrate to the cloud. Principally, Cloud Smart means using a more deliberate and analytical process to determine what IT should migrate to cloud services, rather than blindly assuming cost savings or other benefits will be realized by migrating everything.

Other guidance and resources have been published in support of the Cloud First policy, including the following:

- Best Practices for Acquiring IT as a Service, Chief Information Officer (CIO) Council and Chief Acquisition Officers Council, 2012.
- Best Business Practices for USG Cloud Adoption, General Services Administration (GSA) Federal Acquisition Service, 2016.
- Cloud Computing Security Requirements Guide, Defense Information Systems Agency, 2017.[15]
- Cloud Acquisition Professional's Cloud Adoption Survival Tips, Lessons, and Experiences (CASTLE) Guide, Interagency Cloud Center of Excellence (CCoE), 2017.[16]

DoD addressed cloud services acquisition in Enclosure 7 of DoDI 5000.74, Defense Acquisition of Services, although little information is provided other than compliance directives:[17]

> *PMs [program managers} or FSMs [functional services managers] must implement any cloud computing services in accordance with DISA-provided Cloud Computing Security Requirements Guide (SRG). Prior to contract award, all commercially provided cloud services must have a DoD Provisional Authorization granted by DISA. Prior to operational use, all cloud services must have an Authority to Operate granted by the PM/FSM's Authorizing Official.*

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[13] National Institute of Standards and Technology, *Security and Privacy Controls for Federal Information Systems Organizations, NIST SP 800-53, Rev. 4,* April 2013, accessed October 25, 2018, https://nvlpubs.nist.gov/nistpubs/specialpublications/nist.sp.800-53r4.pdf.
[14] "OMB Drafts 'Cloud Smart' Strategy," Sara Friedman, CGN, June 13, 2018, accessed October 25, 2018, https://gcn.com/articles/2018/06/13/cloud-smart-strategy.aspx.
[15] "Cloud Computer Security Requirements Guide (CC SRG)," Information Assurance Support Environment (IASE), accessed October 25, 2018, https://iase.disa.mil/cloud_security/Pages/index.aspx.
[16] "Here's a Cloud Guide Written by Feds for Feds. Will the White House Listen," Frank Konkel, Nextgov, August 24, 2017, accessed October 25, 2018, https://www.nextgov.com/it-modernization/2017/08/heres-cloud-guide-written-feds-feds-will-white-house-listen/140478/.
[17] Defense Acquisition of Services, DoDI 5000.74 (2017).

> *Commercial cloud services hosting controlled unclassified information or non-publicly releasable information outside of the Department's security boundary must be connected to the Department of Defense Information Network (DODIN) through a Cloud Access Point that has been approved by the Information Security Risk Management Committee and the DoD CIO, in accordance with connection approvals in the Chairman of the Joint Chiefs of Staff Instruction 6211.02D (Reference (ah)).*

Despite all the cloud policy and guidance, acquisition professionals are still constrained by laws and regulations conceived before cloud services existed. These laws and regulations are out of step with current delivery models offered by commercial industry—DoD is not buying what companies are selling. An early and prominent example of the government buying cloud services demonstrates that although the technology innovation is present, the associated contracting processes can reduce the velocity of access to these services, and as a result reduce the value derived.[18]

Case Study:
Commercial Cloud Services Contract

In 2013, the Central Intelligence Agency awarded a contract to Amazon Web Services (AWS) known as Commercial Cloud Services (C2S). With a 10-year period of performance and a potential value of $600 million, this purchase was the largest cloud services contract awarded by the federal government at the time. C2S was considered a groundbreaking initiative to serve all 17 agencies that make up the intelligence community (IC) with a private cloud at the Top Secret level built on government property. The contractor, AWS, owns and maintains the computer hardware and manages cloud services operations.

C2S includes essential technical cloud characteristics like instantaneous scalability that were once thought impossible in government. This approach enables capabilities like provisioning a server in minutes instead of months, providing obvious operational benefits. The C2S private cloud also includes a marketplace that allows the IC to access commercial innovation through new applications and services added by AWS.

Although the technology capabilities of C2S are state-of-the-art, the contracting and business processes that govern these capabilities are an inhibitor to speed and agility. C2S has the ability to provision a server in minutes; however, the process for getting authorization to turn on that server can take months. This process may include developing and awarding a technical task order, securing funding, and navigating layers of approvals. To take full advantage of consumption-based solutions like C2S, the government needs to update its contracting and business processes to be as agile and flexible as the technology itself. Until those changes to the acquisition process are made, realizing the full potential of this new generation of technology solutions will remain a challenge.

Some have expressed concern that if cloud services are used by the government in the same manner as the commercial sector that an overzealous user could rapidly consume a disproportionate share of resources or even exceed an entire contract's available funding in a matter of hours or days. Although this risk does exist, it is extremely unlikely to be realized given the management and monitoring tools

[18] Analytic Technology Industry Roundtable, interview with Section 809 Panel, September 18, 2018.

inherent in modern cloud solutions. AWS, for example, includes a suite of tools for customers to manage services with features like service limits by user account, usage and cost reports with forecasting, and configurable alerts. Tools like these will allow the government to take advantage of the rapid scalability of modern cloud services while minimizing the risk of unauthorized or unexpected overuse.

Recent IT acquisition legislation has not directly addressed effective IT solutions procurement. The Federal Information Technology Acquisition Reform Act (FITARA) strengthens CIO authority, adds more oversight and reporting requirements to IT acquisition, and mandates data center consolidation, but it does not provide any new authorities or tools to improve cloud procurement to support these goals.[19]

Today the government has challenges with cloud procurement, but the market is constantly evolving. More things will be sold as a service in the future. XaaS could really mean *everything* in the context of the Internet of things (IoT). Consumption-based solutions are appearing in many industry sectors, from last mile transportation (e.g., bike shares and electric scooters) to agriculture (e.g., tractor-as-a-service for farmers in developing countries).[20] Most smart phone users are familiar with software updates that provide bug fixes or new features. A more extreme example of technology innovation enabled by the IoT is the ability to deliver physical performance improvements to vehicles through over-the-air software updates. In May of 2018 Tesla Motors substantially reduced the braking distance of its Model 3 sedan through a software update.[21] In the not-so-distant future, cloud computing and the IoT will enable consumption-based solution offerings and delivery models that are hard to imagine today.

Discussion

The following sections discuss some of the specific challenges faced by acquisition professionals when attempting to effectively acquire modern IT solutions using the existing statutory and regulatory framework.

Supply or Service?

The fundamental decision as to whether a solution is procured as a supply or service has significant implications and frequently causes consternation for contracting officers. A common example is software licenses. Years ago, software was delivered on physical media like a compact disc (CD) and was sold for a fixed price per copy. Paying for the software up front, as a supply, made sense. Sometimes an upgrade CD was available a year or two later at a price less than the original license—still a supply. As physical media became less common, and software delivery moved to subscription models, including the more dynamic SaaS, that supply or service decision has become much more complicated. Some contracting professionals still prefer to buy software as a supply, if for no other

[19] Sections 831–837 of FY 2015 NDAA, Pub. L. No. 113-291 (2014).
[20] "Meet A Tractor That Can Plow Fields And Talk To The Cloud," Joy Diaz, NPR, March 29, 2016, accessed September 24, 2018, https://www.npr.org/sections/goatsandsoda/2016/03/29/472129577/meet-a-tractor-that-can-plow-fields-and-talk-to-the-cloud.
[21] In May 2018 Consumer Reports evaluated, but did not recommend, the Tesla Model 3 due to long braking distances. Less than two weeks later Tesla pushed out an over-the-air software update that tweaked the calibration of the Model 3's antilock braking algorithm. The software update cut the vehicle's 60 mph stopping distance by 19 feet, which ultimately earned it Consumer Report's recommendation. "TESLA'S Quick Fix for Its Braking System Came from the Ether," WIRED, May 30, 2018, accessed October 25, 2018, https://www.wired.com/story/tesla-model3-braking-software-update-consumer-reports/

reason than the acquisition rules are much simpler. Others argue that SaaS should be procured as a service. After all, it is called software as a *service*, and the government is not getting a tangible product, but rather use of a system developed and maintained by a vendor.

Contracts for services are governed by more complicated rules and procedures in FAR Part 37 and DoDI 5000.74. In addition to the extra rules associated with service contracting, these contracts frequently enter contentious territory on issues such as personal services, evaluation and selection methods, contract-type decisions, and payment arrangements. In some cases, SaaS vendors require upfront payment for license subscriptions.[22] The popular SaaS vendor Salesforce runs a true cloud multitenant solution but uses a traditional pay-up-front annual user-based licensing model. Other vendors offer true consumption-based services with payment in arrears. Contracting officers need guidance on which analysis to impose, regardless of how vendors label their offerings.

In today's environment, consumption-based services are often purchased as other direct costs (ODCs) *incidental* to a services contract. This is the approach used by the Air Force's Common Computing Environment (CCE) program that is migrating thousands of applications to the cloud.[23] Using ODCs is a symptom of current procurement constraints rather than a desirable or innovative strategy.

Current Guidance

FedRAMP established and maintains a sophisticated set of rules and resources to assist agencies with cloud procurement, but the program focuses almost exclusively on security.[24] It does not address the lack of contracting guidance, rules, and tools for acquiring cloud services. Although FedRAMP has an important role to play, security alone does not make a good cloud contract. The government needs to be a smart buyer of cloud and other consumption-based services, and it simply does not have all the right tools.

In some cases, current cloud acquisition guidance recommends questionable applications of existing contract types. For example, GSA's *Best Business Practices for USG Cloud Adoption* recommends use of the contract type *fixed price with economic price adjustment.* But economic price adjustment is meant to address changes to established prices or underlying cost structure, not variation in consumption of the service. This attempt to use existing approaches to solve evolving problems is a stark illustration that the tools currently available in the FAR do not effectively address consumption-based services.

There are, however, examples of innovative contract types implemented for specific purposes. The Defense Logistics Agency uses energy savings performance contracts (ESPCs), a contract type through which an energy services contractor designs, finances, acquires, installs, and maintains energy-saving equipment and systems for a federal agency. ESPCs allow federal agencies to procure energy savings

[22] While software subscriptions are commonplace in 2018, references to the word "subscription" in FAR Part 13 refers to "…newspapers, magazines, periodicals, or other publications…" and in FAR Part 31 "Subscriptions to trade, business, professional, or other technical periodicals."
[23] USAF CCE representatives, interview with Section 809 Panel, August–September 2018.
[24] "Documents," FedRAMP, accessed October 25, 2018, https://www.fedramp.gov/documents/.

and facility improvements with no upfront capital costs or special appropriations from Congress.[25] DoD needs a similarly innovative contract type to address the unique aspects of cloud services and other consumption-based solutions, with flexibility for procuring future solutions that may have different characteristics.

Another challenge with current FAR contracting rules is scope. The scope of services is established at the time a contract or order is competed and awarded. Any new scope not explicitly included in the contract must be part of a new competition. For cloud services, vendors' service offerings can change daily, and these scope rules put the government in a difficult position.[26] Contracts can take months or even years to award with defined scope. If the vendor then comes out with a desirable new service, current laws and regulations require the agency to start over and compete the new service. Such competition is undesirable because groups of services are best provided by a single vendor. Using multiple providers could create problems with integration, coordination, and compatibility. Exceptions are allowed under current rules, but DoD's acquisition of new, commercial IT solutions should not be defined by exceptions that involve multiple approvals.

Fiscal Issues

Funding is one of the key challenges to implementing consumption-based services, as GAO identified within a year of OMB's Cloud First strategy:[27]

> *Procuring services on a consumption (on-demand) basis: Because of the on-demand, scalable nature of cloud services, it can be difficult to define specific quantities and costs. These uncertainties make contracting and budgeting difficult due to the fluctuating costs associated with scalable and incremental cloud service procurements. For example, HHS officials explained that it is difficult to budget for a service that could consume several months of budget in a few days of heavy use.*

Budgeting rules and appropriation law have created IT acquisition challenges in DoD for almost as long as the term *IT* has existed. Numerous studies and reports argue that DoD needs more fiscal flexibility to effectively acquire high quality IT.[28] *Colorless money* (a theoretical general purpose appropriation without periodicity constraints) and *working capital funds* (an alternative to annual appropriations) are usually the preferred remedy, although only the latter has received any traction.[29]

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[25] DoD Inspector General, *Defense Logistics Agency Award and Administration of Energy Savings Performance Contracts, Report No. DODIG-2018-135,* July 6, 2018, accessed October 25, 2018, https://media.defense.gov/2018/Jul/10/2001940709/-1/-1/1/DODIG-2018-135.PDF.

[26] The constantly evolving service offerings of cloud providers are part of their value proposition. In 2017 alone, AWS added several hundred new services that became instantly available to their customers.

[27] GAO, *Information Technology Reform: Progress Made but Future Cloud Computing Efforts Should be Better Planned, GAO-12-756,* July 2012, accessed October 25, 2018, https://www.gao.gov/assets/600/592249.pdf.

[28] See Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations, Volume 1 of 3* (2018). Also see Su Chang and Pete Modigliani, "Addressing the Barriers to Agile Development in DoD," MITRE Corporation, May 2015 (page 18 includes discussion of the need for software programs to sometimes respond "rapidly to changes in ops, technology, and budgets"), accessed September 24, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/a625456.pdf.

[29] DoD working capital funds (WCFs) are defined under 10 U.S.C. § 2208(a) as budget tools intended to "control and account more effectively for the cost of programs and work performed in the Department of Defense." Rather than annual appropriations, WCFs rely on a model akin to a commercial company, effectively selling their goods and services to customers (other parts of DoD). Unlike a commercial company, a WCF is not intended to make a profit, but rather achieve zero net income in the long term. "Hurd dishes on

When it comes to consumption-based solutions, the fiscal limitations are especially challenging. Not knowing in advance how much of a service will be used means the amount obligated on a contract is at best an estimate based on a set of assumptions, and at worst simply a guess. The ramifications can be substantial. If the estimate is high, funding must be de-obligated, putting the next year's budgets at risk in the government's *use it or lose it* culture. If the estimate is too low, the contracting officer risks an Anti-deficiency Act violation, punishable by suspension without pay, removal from office, fines, and even imprisonment.[30] The department should not ask its acquisition workforce to gamble on these kinds of stakes. The CASTLE Guide summarized this conundrum: "The current mechanisms of Federal funds systems works directly against the intended business advantages of cloud computing."[31]

DoD and other agencies need a funding system that works for consumption-based solutions without the stress and contortions present in the current system. In consumer technology and commercial industry, these solutions are billed and paid for in arrears based on actual usage. That exact model may not be feasible, but the government needs to find something closer than it has today. The carryover authority provided by Congress to the Defense Health Agency (DHA) for drug and medical services indefinite-quantity contracts is a model worth considering. DHA has this authority because precise obligations for these services cannot be predicted due to varying patient and facility needs.[32]

Not All Government IT is Suitable for the Cloud

With all the policy, leadership attention, and press around *getting to the cloud,* a one-size-fits-all attitude that everything should be moved to the cloud has taken shape. Unfortunately, this is much like what happens during household moves. Only about a quarter of the contents of the boxes in the basement should be moved. Half of the remaining items are probably trash, and the other quarter could be donated for use by someone else. But that is not what happens. In the absence of time to purge thoughtfully, everything is moved. The government is doing this with cloud migration—moving the junk into the shiny new house. There will be no cost savings, and there may even be cost increases. Because the cloud services provider does not use the outdated servers those applications run on, that will cost extra. This situation is an example of the *technical debt* so often discussed at conferences and in press articles.[33]

The *lift and shift* attitude is reinforced by FITARA, which not only measures data center consolidation progress but gives agencies a report card complete with a letter grade. Very few agencies receive an *A*. Though well intended, this mandate could actually be causing agencies to migrate decades-old legacy systems that have no business being used today, much less being migrated to the cloud. OMB's new

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MGT's future," Chase Gunter, FCW, December 20, 2017, accessed October 25, 2018, https://fcw.com/articles/2017/12/20/hurd-mgt-future-gunter.aspx.

[30] "Antideficiency Act Resources," GAO: Bid Protests, Appropriations Law & Other Legal Work, accessed October 25, 2018, https://www.gao.gov/legal/appropriations-law-decisions/resources.

[31] Cloud Center of Excellence (CCOE), *Acquisition Professional's C.A.S.T.L.E. Guide: Cloud Adoption Survival, Tips, Lessons Learned, and Experiences Guide,* 3, accessed October 25, 2018, https://www.nextgov.com/media/gbc/docs/pdfs_edit/castle_guide.docx.

[32] In recent years' defense appropriations, Congress has approved a small, 1-year, carryover authority for O&M spending by the Defense Health Program (DHP).

[33] "Huge bill coming due for out-of-date technology," Jason Miller, Federal News Network, May 25, 2015, accessed October 25, 2018, https://federalnewsradio.com/omb/2016/05/huge-bill-coming-due-date-technology/. "Deutsche Bank digging out of technical debt, while moving to the cloud," Clint Boulton, CIO, November 11, 2015, accessed October 25, 2018, https://www.cio.com/article/3004538/cio-role/deutsche-bank-digging-out-of-technical-debt-while-moving-to-cloud.html.

Cloud Smart policy aims to address this issue. There is no one-size-fits-all approach to cloud migration. In some cases, it may make more sense to shut down an application or subsume it than to migrate. Agencies need to establish a process and a model to analyze their applications and determine the most appropriate disposition, a process commonly known as application rationalization. Much like the important business process reengineering (BPR) step in systems modernization projects, application rationalization is often abbreviated or skipped altogether in cloud migration efforts.

A true consumption model allows customers to know what IT they have acquired *and* what they are actually using. The government lacks accurate accounting of its IT, partly due to an acquisition process incentivized more to estimate future usage than measure actual consumption by end users.[34] In the current model, unused software licenses sit on the shelf, either physically or virtually, wasting millions of dollars. The consumption model, by contrast, provides the capability to quickly turn off resources that are not being used. Events like usage spikes can be identified and corrected quickly as opposed to the traditional software licensing model for which these issues are not discovered until months or years later when a multimillion dollar bill comes due after a license audit.

Innovation and Skills Shift: Tomorrow's IT Will Not Look Like Today's IT

DoD tends to over-specify requirements, often basing them on capabilities from the past instead of imagining the future. This approach hinders DoD's ability to exploit commercial innovation and results in customized solutions that sacrifice one of the key value propositions of cloud services—economies of scale leveraging a common solution across multiple customers. The fact that there is a separate *Government Cloud* makes clear the government is not fully leveraging commercial solutions, albeit security requirements are a large driver of this segregated cloud.[35] Further complicating matters, DoD often prioritizes low price over value delivered. This practice is understandable, because price is purely quantitative, therefore easy to compare. But tapping into commercial innovation requires a deep understanding of what services are available and how they can be applied to solve a mission or business problem. This type of analysis relies on a specific skill set that is in short supply within the DoD acquisition workforce.

IT, as it was understood in the past, has quickly become an invisible commodity. As cloud services and modern IT solutions become the rule instead of the exception, the skills needed to leverage these solutions will change dramatically. There will no longer be a need for droves of contractors at data centers monitoring server and storage status or installing patches. Those duties will be fulfilled in the background by the cloud services provider. Instead, the needed skills will be in designing, refining, and optimizing business processes to better support the mission. For example, future IT professionals will need the ability to quickly understand a new, instantly available machine learning capability and how it can be used to increase lethality or fine tune inventory levels. Those are not the skills of a traditional IT workforce.

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[34] OMB Memorandum M-16-12, *Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing,* June 2, 2016, accessed October 25, 2018, https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m-16-12_1.pdf.

[35] "You don't have to build your tech from the ground up," CLOUD.GOV, accessed October 25, 2018, https://cloud.gov/.

Organizations like the Defense Digital Service are helping programs better understand how to acquire and leverage modern digital services, but this effort happens in pockets of excellence and needs to be institutionalized.[36]

If DoD addresses change using an ideal approach, a knowledge-based workforce will rapidly innovate using an ever-changing set of solution offerings from numerous innovative vendors. One of the ways this goal can be accomplished is by establishing a center of excellence (CoE) to transform the way the organization develops applications and exploit the constant innovation in the cloud. GSA established one such Cloud Adoption COE to assist the Department of Agriculture (USDA) with developing the foundation of a Commercial Cloud Platform Services organization to be the "pathway to cloud services" for the agency. GSA cites early successes of the effort as planning for migration to the cloud by "balancing tactical 'lift and shift' imperatives with more strategic 'fix and shift' possibilities."[37]

Acquiring Modern Solutions

Although the government has many challenges in procuring and properly employing cloud services to realize value, these consumption-based services are merely the proverbial canary in the coal mine. With enablers like quantum computing and machine learning, technology innovation will inevitably continue at an increasing rate, and DoD must be ready to effectively acquire the resultant solutions or risk being outmatched by near-peer adversaries that do not struggle with archaic acquisition constraints.[38]

DoD must improve cloud acquisition, yet these types of technology infrastructure are rarely bought on a stand-alone basis. Most modern solutions are hybrids that combine cloud or other hardware and software components with high-skill professional services. These skills may be required to refactor and migrate a legacy application, or to solve a warfighting or business problem using technology innovations and design services. The implications of these hybrid solutions are two-fold: acquisition rules must effectively accommodate a novel and evolving type of procurement, and acquisition professionals must deeply understand the solutions market and capabilities to be a *smart buyer.*

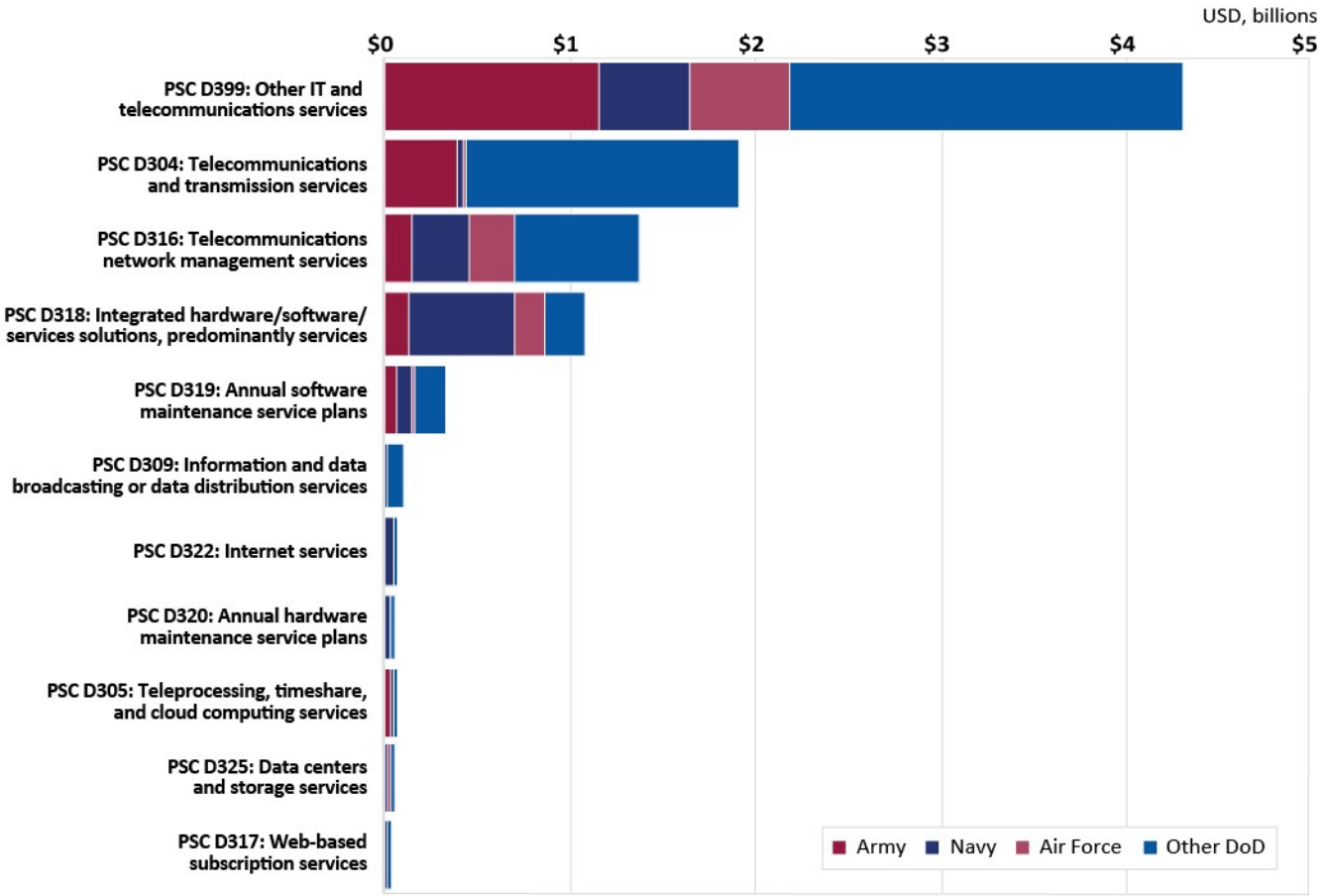
As shown in Figure 3-1 below, DoD already spends nearly $10 billion annually on services that could potentially be purchased on a consumption basis, so the need to improve the buying process is long overdue.[39] Additionally, increased year-over-year spending on cloud and related services is a given.

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[36] "News & Events: DOD CIO, DISA assist 'fourth estate' with cloud migrations," Defense Information Systems Agency, accessed September 24, 2018, https://www.disa.mil/NewsandEvents/2018/fourth-estate-cloud-migrations.
[37] "Cloud Adoption," GSA, IT Modernization Centers of Excellence, accessed October 25, 2018, https://coe.gsa.gov/coe/cloud-adoption.html.
[38] "What is quantum computing? A machine learning supercharger businesses can't ignore," Clint Boulton, CIO, February 7, 2018, accessed September 24, 2018, https://www.cio.com/article/3253886/emerging-technology/what-is-quantum-computing-a-machine-learning-supercharger-businesses-cant-ignore.html.
[39] Data from Federal Procurement Data System, extracted September 25, 2018. Calculations are based on Product Service Codes (PSC)s. Some of the transactions included in the totals may be inappropriate for consumption-based pricing models; this list represents a rough estimate of transactions that might be suitable. In addition to these categories, the PSC structure contains many other types of IT services that would likely be unsuitable for consumption-based pricing (such as data entry, programming, and help desk support).

According to a recent survey, 82 percent of public-sector cloud adopters were anticipated to increase spending on cloud computing.[40]

Figure 3-1. FY 2017 DoD Contract Obligations that Could Potentially Be Priced Using Consumption-Based Models



Conclusions

The government will be unable to effectively acquire modern consumption-based solutions until it implements a new set of procurement rules that address the unique attributes of these solutions and provide flexibility to effectively buy future solutions that do not fit into existing categories. Additionally, acquisition professionals must receive appropriate training and conduct ongoing market research to be effective buyers of these solutions. The challenges with the current system and some of the ways these challenges can be addressed are summarized as follows:

- The current *supplies* and *services* model should be updated to provide more flexible purchasing categories that address current and anticipated delivery models, including consumption-based solutions. Traditional services acquisition rules should not apply to consumption-based solutions or to any hybrid contract whose primary purpose is to implement solutions

[40] "Is on-premises being killed by the cloud? Not necessarily," Eric Houvenaghel, GCN, May 17, 2017, accessed October 25, 2018, https://gcn.com/articles/2017/05/17/on-premises-vs-cloud.aspx.

(i.e., a contract that includes a combination of consumption-based services, SaaS, infrastructure as a service, platform as a service, and/or professional services).

- The government needs a new contract type to accommodate the uniqueness of consumption-based solutions. Conventional acquisition policy assumes locking in a firm fixed price is low risk for the government, when in fact for consumption-based solutions it can result in paying for services not delivered or paying more than the current market rate due to declining prices. Additionally, the requirement to fully fund (obligate funds) upfront for firm-fixed-price contracts is not well suited for services whose ultimate price will be determined by usage and therefore not be known in advance. The optimal contract type for consumption-based solutions will function more like a time-and-material than a firm-fixed-price contract, and will automatically capture price reductions in contractors' commercial pricing. It is also essential that this new contract type be permitted for use on contracts for commercial items (i.e., FAR Part 12) as most consumption-based solutions are commercial offerings.

- Explicit authority should allow for consumption of newly released services not available at the time of initial contract award. Recent work-arounds to address this challenge include a contract-specific clause in the JEDI RFP and GSA's order-level materials rule that permits up to 33.33 percent of the value of an order to be used for supplies or services not known at the time of award.[41]

- Congress should provide funding flexibility, so acquisition professionals can confidently procure consumption-based solutions without fear of running afoul of the Anti-deficiency Act or Impoundment Act. This type of funding flexibility would improve acquisition beyond just IT.

- DoD should develop and provide ongoing training, including a specialized certification, to acquisition professionals purchasing IT solutions. This training should be refreshed at least annually to keep pace with new technologies, solution offerings, and delivery models. Training could be modeled after the Digital IT Acquisition Program (DITAP), which is part of the Federal Acquisition Certification in Contracting Core-Plus Specialization in Digital Services (FAC-C-DS).[42]

[41] Special Ordering Procedures for the Acquisition of Order-Level Materials, 48 CFR 552.238-82(d)(4). See also, "General Services Administration Acquisition Regulation (GSAR); Federal Supply Schedule, Order-Level Materials; Technical Amendment," NARA Federal Register, accessed October 30, 2018, https://www.federalregister.gov/documents/2018/08/16/2018-17639/general-services-administration-acquisition-regulation-gsar-federal-supply-schedule-order-level.

[42] OMB OFPP Memorandum, *Establishment of Federal Acquisition Certification in Contracting Core-Plus Specialization in Digital Services (FAC-C-DS),* May 18, 2018, accessed October 25, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/05/fac_c_digital_services_05_12_18.pdf.

Implementation

Legislative Branch

- Revise appropriation law and budgeting rules to address the unique aspects of buying consumption-based solutions. Recommendation 49 provides the flexibility necessary for these changes.

Executive Branch

- Create a new subcategory of *services* called *consumption-based solutions* in FAR Part 37, Service Contracting, and add a reference (pointer) in FAR Part 39, Acquisition of Information Technology.[43] Agency-specific regulations, policies, and guidance regarding service contracting are not applicable to contracts for *consumption-based solutions* or hybrid contracts when the primary purpose is to procure *consumption-based solutions.*

  - The following is the definition of *consumption-based solutions*: Any combination of hardware/equipment, software, and labor/services that together provide a seamless capability that is metered and billed based on actual usage and predetermined pricing per resource unit, and includes the ability to rapidly scale capacity up or down.
  - Consumption-based solutions must be measurable/meterable on a frequent interval customary for the type of solution (e.g., hourly, daily, weekly). The contractor is required to notify the government when consumption reaches 75 percent and 90 percent of the contract funded amount.
  - New services or features can be added to contracts for consumption-based solutions at the discretion of the contracting officer without conducting a new competition, provided the amount of these new services or features does not exceed 25 percent of the total contract value.

- Update the Product Service Code (PSC) data architecture to accommodate consumption-based solutions as a new data type.

- Add a new contract type called *fixed-price resource units* to FAR Subpart 16.2. The fixed-price resource units contract type:

  - Establishes a fixed price per unit of measure (e.g., one hour of computing resource as shown in Table 3-1 below).
  - Sets a ceiling for the overall contract value against which consumption of individual resource line items will be charged.
  - Is the preferred contract type for consumption-based solutions, and when used for those procurements should not require special approvals.
  - Can be incrementally funded.

[43] The term *consumption-based solutions* was chosen in favor of *consumption-based services* because lessons learned from utility services contracting indicated that including the word "services" would cause confusion and result in attempts to improperly apply all Service Contracting (i.e., FAR Part 37) rules to the new purchasing category.

- Sets a maximum unit price for each resource unit and captures price reductions when commercial catalog prices are reduced.
- Is permitted for use under commercial item/service acquisition in FAR Part 12: Acquisition of Commercial Items.

Table 3-1. Resource Unit Examples

Resource Unit	Unit of Measure	Quantity	Unit Price	Extended Amount
Compute (virtualized server)	Hours	EXAMPLE		
Aerial Drone Surveillance	Minutes	EXAMPLE		
Travel Booking	Trips	EXAMPLE		

- Develop IT solutions training and a corresponding certification/designation for DoD acquisition professionals based on the existing DITAP, which is part of the FAC-C Core-Plus specialization in digital services.
  - Refresh training content and individual certifications at least annually.
  - Include instruction on how to conduct cost/price analysis for consumption-based solutions.
  - This training curriculum is for commercial IT solutions and does not apply to weapon systems acquisition.

Note: Draft regulatory text can be found in the Implementation Details subsection at the end of Section 3.

Implications for Other Agencies

- Recommendations are for governmentwide changes that would benefit both DoD and federal civilian agencies.

Recommendation 44: Exempt DoD from Clinger–Cohen Act Provisions in Title 40.

Problem

Two decades after its implementation, the Clinger–Cohen Act of 1996 (CCA) has made significant progress in instilling an enterprise view of IT acquisition among federal agencies, but other goals have proven harder to achieve. Many agencies continue to lag in prioritizing commercial technology and best practices over government-unique processes, a key mandate of CCA. Additionally, newer laws such as FITARA strengthen CCA provisions, including the use of modular contracting and the agency CIO role created—but not sufficiently empowered—by CCA.

Within DoD, the CCA compliance process is not only outdated but also a time-consuming burden for programs that are layered on top of DoD's robust resources, requirements, and acquisition system. This

multilayered process renders many CCA requirements redundant with other laws, regulations, and policies. DoD's checklist-oriented compliance process occurs at major milestones rather than throughout the development process. DoD's current compliance with CCA provides limited strategic value for CIOs and programs, and it has become more of a hurdle than an enabler in efforts to streamline and modernize IT acquisition.

Background

CCA is a group of legal provisions intended to provide enterprisewide oversight and discipline for IT acquisition across all federal agencies. CCA is mainly codified under Subtitle III of Title 40, Information Technology Management.[44] DoDI 5000.02, which lays out the process for defense acquisition, contains a list of 11 specific requirements program offices must meet to be considered compliant with CCA.[45] This list has been incorporated into other tailored guidance for the acquisition of services and defense business systems, DoDI 5000.74 and DoDI 5000.75, respectively.

CCA History

CCA was enacted as part of the FY 1996 NDAA.[46] It comprised two bills that were added to the NDAA—the Federal Acquisition Reform Act and the Information Technology Management Reform Act (ITMRA). Together they are known collectively as CCA, although most provisions relating to IT come from the ITMRA portion, and DoD's implementation of CCA explicitly identifies compliance only with ITMRA.[47] In 2002, the IT provisions of CCA were codified under Title 40 of U.S. Code.[48]

CCA repealed the Automatic Data Processing Act of 1965, informally known as the Brooks Act, and instituted updated guidance for management and acquisition of federal IT. In 1994, then-Senator William S. Cohen released his investigative report *Computer Chaos: Billions Wasted Buying Federal Computer Systems*.[49] The report's analysis of existing federal information systems found that many agencies were undertaking IT initiatives that were not related to their mission or sufficiently integrated with existing IT, much of which was archaic and difficult to maintain or modernize. Additionally, GSA offices charged with overseeing and preapproving all federal IT procurement were overworked and understaffed, leading to delays. Cohen's report provided support for and directly led to the reforms of CCA.

CCA revisited the acquisition of federal IT in a systemic way, and it set out new best practices from the private sector meant to create efficiencies. CCA was intended to improve slow and uncoordinated acquisition of computers and software on the federal level, shift oversight from GSA to federal agencies and OMB, and shift IT purchases to being viewed as strategic investments rather than isolated expenses. For the first time in law, CCA established CIOs in government agencies, detailing their roles and responsibilities. CIOs were meant to oversee all major IT investments in coordination with their agency heads, linking capital planning, budget formulation, and execution. CCA also encouraged

[44] As of mid-2018, 40 U.S.C. § 11101 through 40 U.S.C. § 11704.
[45] Operation of the Defense Acquisition System, DoDI 5000.02, Enclosure 1, Table 10, 76 (2017).
[46] FY 1996, Pub. L. No. 104-106 (1996). Codified in law as Information Technology Management, 40 U.S.C. Subtitle III.
[47] Implementation of Subdivision E of the Clinger–Cohen Act of 1996 (Public Law 104-106), DOD Memorandum (1997).
[48] Codifying Title 40, United States Code—Public Buildings, Property, and Works, Pub. L. No. 107-217 (2002).
[49] William S. Cohen, *Computer Chaos: Billions Wasted Buying Federal Computer Systems,* U.S. Government Printing Office, 1994.

incremental acquisition and modular contracting, and it required agencies to use commercial solutions rather than develop unique software or business processes.[50]

CCA in DoD

As implemented in DoD, CCA created three strategic planning steps for IT: make sure the IT investment directly supports the agency's mission; procure commercial technology if available; and if DoD-specific IT must be developed, conduct BPR first to ensure processes are modernized alongside technology.[51]

CCA was originally created to solve problems with both civilian agencies and DoD. Civilian agencies continue to have less sophisticated acquisition processes than DoD, and some of them struggle with effective oversight of IT acquisition.[52] DoD's acquisition structure provides substantial oversight for all acquisitions at an enterprise level, as detailed in DoDD 5000.01, The Defense Acquisition System, and DoDI 5000.02, Operation of the Defense Acquisition System. DoD has an additional acquisition process for IT, originally detailed in the DoDI 5000.02 as Enclosure 11, Requirements Applicable to All Programs Containing Information Technology and Enclosure 12, Defense Business Systems. Guidance for CCA compliance is also found in DoDI 5000.74, which contains the same 11-item compliance list as DoDI 5000.02 and DoDI 5000.75. This list integrates CCA compliance with other processes rather than as a separate checklist.[53]

DoDI 5000.02's Enclosure 11 clarifies the additional steps to demonstrate CCA compliance, which apply to all IT programs of any size, including National Security Systems (NSSs). The Milestone Decision Authority (MDA) may not issue a milestone approval until the following transpires:

> *(1) The sponsoring DoD Component or program manager has satisfied the applicable acquisition phase-specific requirements of the CCA as shown in Table 9 in Enclosure 1 of this instruction; and (2) The Program Manager has reported CCA compliance to the MDA and the DoD Component Chief Information Officer (CIO), or their designee.*[54]

Below is the 11-item CCA checklist from DoDI 5000.02 and DoDI 5000.74:

- Make a determination that the acquisition supports core, priority functions of the DoD.
- Establish outcome-based performance measures linked to strategic goals.

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[50] These requirements can also be found in 10 U.S.C. § 2222.
[51] Secretary of Defense, DoD Memorandum, *Implementation of Subdivision E of the Clinger–Cohen Act of 1996 (Public Law 104-106),* 1997, accessed October 22, 2018, https://www.acq.osd.mil/dpap/Docs/clinger.pdf.
[52] The IRS, for instance, was cited by the Treasury Inspector General for lacking a cloud migration strategy despite a 2010 cloud-first mandate from the federal CIO. In 2015, the IRS developed Form 990 using cloud services without crafting an agreement that adheres to FedRAMP-approved best practices. DoD, by contrast, has created its own cloud provider, the Defense Information Systems Agency (DISA). Treasury Inspector General for Tax Administration, *The Internal Revenue Service Does Not Have a Cloud Strategy and Did Not Adhere to Federal Policy When Deploying a Cloud Service,* August 7, 2017, accessed June 15, 2018, https://www.treasury.gov/tigta/auditreports/2017reports/201720032fr.pdf.
[53] Defense Acquisition of Services, DoDI 5000.74, Enclosure 7, Table 2: CCA Compliance, 31 (2017).
[54] Operation of the Defense Acquisition System, DoDI 5000.02, Enclosure 11, 140–141 (2017).

- Redesign the processes that the system supports to reduce costs, improve effectiveness, and maximize use of commercial off-the-shelf (COTS) technology.
- Determine that no private-sector or government source can better support the function.
- Conduct an analysis of alternatives.
- Conduct an economic analysis that includes a calculation of the return on investment; or for non-automated-information-systems programs, conduct a lifecycle cost estimate.
- Develop clearly established measures and accountability for program progress.
- Ensure that the acquisition is consistent with the DoD Information Enterprise policies and architecture, to include relevant standards.
- Ensure that the program has a cybersecurity strategy that is consistent with DoD policies, standards and architectures, to include relevant standards.
- Ensure, to the maximum extent practicable, (a) modular contracting has been used, and (b) the program is being implemented in phased, successive increments, each of which meets part of the mission need and delivers measurable benefit, independent of future increment.
- Register mission-critical and mission-essential systems with the DoD CIO (Implemented as the DoD Information Technology Portfolio Repository (DITPR)).

These eleven items correspond to the original language in CCA as codified in Titles 10, 40, and 41. Table C-1 (in Appendix C) details this crosswalk between DoD policy and statute. DoD policy implements this statutory requirement as a documentation checklist, described in more detail below.

CCA Compliance Process

As executed, DoD's process of CCA compliance has four main steps, the first three involving multiple layers of review before approval is granted:

- The PM compiles documentation to demonstrate CCA compliance with the 11 criteria at key milestones.
- This documentation is reviewed by the program executive officer (PEO).
- Following this review, the documentation goes to the Component CIO. (The Air Force has modified this process to reverse steps 2 and 3, so PEO review occurs after CIO approval.)
- PMs or Component CIOs enter information in DITPR, which is used to satisfy required reporting of enterprisewide compliance and coordination to the Secretary of Defense and Congress. CIOs also write a memorandum demonstrating program compliance.

This process is completed using documents that are also reviewed and approved within the traditional acquisition review chain, going up to the component acquisition executive and defense acquisition

executive, based on the program's acquisition category level. The same documents are repurposed for the CCA compliance process, which brings them to the CIO's attention with the goal of having a single point of oversight for all DoD IT acquisitions. DoDI 5000.02, Enclosure 1, Table 10: CCA Compliance, lists the acquisition documents that can provide evidence of CCA compliance. Element 3, for instance, can be satisfied by information found in the initial capabilities document (ICD), information systems ICD, concept of operations, analysis of alternatives, or BPR.[55]

In February 2017, DoDI 5000.75, Business Systems Requirements and Acquisition, created new guidance that replaced Enclosure 12 of DoDI 5000.02. This guidance was intended to streamline the acquisition process for defense business systems (DBSs) and make it more compatible with flexible and iterative development approaches. This new instruction explicitly states that CCA compliance should not require separate documentation and can be satisfied by existing documentation and reviews, a streamlined practice that was already common in the Air Force. It replaces milestones with authority to proceed decision points, encouraging oversight of DBSs on an ongoing basis instead of only at predetermined points in the lifecycle.

DBSs guidance states that "decision authorities will prevent tailored procedures from including separate reviews and approvals by other organizations when confirmation through direct collaboration is sufficient."[56] This revision to the DBS acquisition process reflects the need for fewer formal review processes and more teamwork; it also shows the extent to which CCA compliance has become embedded in DoD practices, particularly those governing DBSs. As more IT programs begin using Agile development and acquisition processes, DoD process requirements will need to evolve from checklists to ongoing collaboration.

Discussion

CIOs Lack Authority to Fully Implement CCA-Directed Oversight

The positive intent of CCA has not consistently translated into action. CCA was meant to empower agency CIOs, yet multiple evaluations of federal agencies show that CIOs did not receive enough authority over strategic and budget decision making, were dividing their attention among multiple leadership roles in their organization, or did not report directly to the head of their agency—necessary conditions for effectiveness.[57] In 2015, the FITARA gave new legal mandate and authority for empowering CIOs.

FITARA was passed as part of the FY 2015 NDAA and was arguably the most significant legislative initiative on federal IT acquisition since CCA.[58] FITARA attempted to address some of the CIO issues

[55] Ibid, Enclosure 1, Table 10, 76.
[56] Business Systems Requirements and Acquisition, DoDI 5000.75 (2017).
[57] See for instance "Information Technology: Opportunities for Improving Acquisitions and Operations," U.S. Government Accountability Office, April 2017, https://www.gao.gov/assets/690/684047.pdf. Also see *Information Technology: Improved Implementation of Reform Law Is Critical to Better Manage Acquisitions and Operations, GAO-17-263T,* December 6, 2016, 13, accessed October 23, 2018, https://www.gao.gov/assets/690/681420.pdf.
[58] FY 2015 NDAA, Pub. L. No. 113-291, div. A, title VIII, subtitle D, 128 Stat. 3292, 3438-3450 (2014). Other IT legislation includes Title III of the E-Government Act (Pub. L. No. 107-347) and the Federal Information Security Management Act of 2002 (FISMA, updated in 2014 as the Federal Information Security Modernization Act under Pub. L. No. 113-283). FISMA requires agencies to demonstrate security of information and information systems, but does not take such a systemic approach to the management and acquisition of IT.

by bolstering OMB's oversight role, establishing in law the Federal IT Dashboard, and reinforcing the authority of agency CIOs.[59] FITARA was also meant to reinforce the mandate to engage in modular contracting and adopt more commercial technology, requiring CIOs to "certify that information technology investments are adequately implementing incremental development."[60] In FY 2016, federal agencies reported that 64 percent of active software development projects were slated to deliver usable functionality every 6 months.[61] Within DoD, only 8 percent of projects—4 out of 51 projects—were planning delivery of releases every 6 months.[62] The cultural preference for big programs has not been alleviated by statutory requirements for modular contracting and incremental development.

The role of agency CIOs is outlined in 40 U.S.C. § 11315, which states that a CIO has the following responsibilities and duties:

- Providing advice and assistance on IT acquisition to the agency head.
- Ensuring a sound, secure, and integrated IT architecture.
- Promoting effective and efficient design and operation of IT management processes.
- Monitoring and evaluating IT program performance and providing advice on whether to end programs.
- Annually engaging in strategic planning and performance evaluation processes.

Missing from this list is budget authority for IT investments. Several IT experts said that because CIOs do not have access to substantial amounts of funding, they need to have a role in the acquisition process to ensure strategic spending within funded entities.[63] That role is ensured with the CCA compliance process, for which CIOs conduct cost analysis on a program-by-program basis. Some component CIOs have more opportunities for influence over Military Service priorities and spending decisions, as the Air Force CIO does on the AF Corporate Board. On an enterprise level, one expert shared that the DoD CIO had seen some success in promoting collective pricing arrangements across DoD components, lowering overall vendor costs.[64] He conceded, however, that CCA should be "revamped a little."[65] Current means for enabling CIOs have led to modest success, but CIO authority falls short of the original intent of CCA.

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[59] "How the Clinger–Cohen Act Continues to Ripple Through Federal IT Today," Wylie Wong, FedTech Magazine, February 10, 2016, accessed October 23, 2018, http://www.fedtechmagazine.com/article/2016/02/how-clinger-cohen-act-continues-ripple-through-federal-it-today

[60] Resources, Planning, and Portfolio Management, 40 U.S.C. § 11319(b)(1)(B)(ii).

[61] GAO, *Information Technology: Improved Implementation of Reform Law Is Critical to Better Manage Acquisitions and Operations, GAO-17-263T,* December 6, 2016, 13, accessed October 23, 2018, https://www.gao.gov/assets/690/681420.pdf.

[62] Ibid, 15-16. GAO notes a disparity between agencies' reporting of projects on the IT Dashboard and to GAO. For DoD, the numbers reported to GAO demonstrated that 8% of projects planned delivery every 6 months. The data on the IT Dashboard showed 63% of projects planned delivery every 6 months.

[63] DoD CIO officials and Deputy Assistant Secretary of Defense, Command, Control, Communications, Cyber, and Business Systems (DASD (C3CB)), discussions with Section 809 Panel, February–March 2018.

[64] DoD CIO official, discussion with Section 809 Panel, March 2018.

[65] Ibid.

CIO turnover at agencies has been high. As a 2004 GAO report pointed out, in the 8 years following CCA enactment, the average tenure of federal CIOs was 2 years. This trend has continued and intensified. Agency CIOs and IT executives generally agree that they need 3 to 5 years to become effective.[66] DoD has had 14 different CIOs between 1996 and 2018, nine of whom were in an acting capacity for all or part of their tenure. During this period, the average tenure for the DoD CIO was 24 months. With the change in presidential administrations in 2017, seven federal agency CIOs handed over their responsibilities within the span of a few months, renewing concerns about consistency in federal IT leadership.[67]

The CIO Council, established in 2002, provides support and guidance for agency CIOs. In 2008 and 2012, the CIO Council issued versions of the CCA Core Competencies, a training document based on CCA to educate CIOs on IT acquisition and management strategies. This document notes that no one individual can accomplish all the goals, emphasizing the importance of training the entire IT acquisition workforce. The 2012 version added nine competencies, including guidance on cloud computing and social media, two fundamental pieces of modern computing that did not exist in 1996. The guidance on acquisition acknowledges, "Acquisition needs to move from what [has] been a singular focus on process to one that considers both process and objectives."[68]

OMB has issued similar guidance, such as OMB Circular A–130, Management of Federal Information Resources, the primary policy document for federal IT management. Circular A–130 establishes policy implementing CCA and other IT laws, both predating and postdating CCA. The most recent revision was published in July 2016 and reflects changes from FITARA.

DoD CIO and CMO Offices are Reorganizing More Effectively

Recent DoD leadership changes created new processes intended to achieve goals similar to those envisioned by CCA and changed the nature of the CIO to refocus more strategically on IT issues rather than business management. The FY 2017 NDAA established the office of chief management officer (CMO) and elevated the position to third-highest ranking official in DoD.[69] The FY 2018 NDAA expanded the CMO role, shifting existing authorities over business systems from CIO to CMO.[70] These changes reflected a congressional perception of the CMO as better suited to oversee certain IT investments, encompassing not only the acquisition process but also BPR.[71]

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[66] GAO, *Federal Chief Information Officers: Responsibilities, Reporting Relationships, Tenure, and Challenges, GAO-04-823,* July 2004, 4 and 47, accessed October 23, 2018, https://www.gao.gov/new.items/d04823.pdf.
[67] "GAO Chief: CIO Departures Are 'An Area of Concern,'" Carten Cordell, Scoop News Group, August 23, 2017, accessed October 23, 2018, https://www.fedscoop.com/gaos-dodaro-says-cio-departures-area-concern/.
[68] CIO Council, *2012 Clinger–Cohen Core Competencies and Learning Objectives*, https://s3.amazonaws.com/sitesusa/wp-content/uploads/sites/1151/2016/10/2012-Learning-Objectives-Final.pdf.
[69] Section 901 of FY 2017 NDAA, Pub. L. No. 114-328 (2016).
[70] Section 910 of FY 2018 NDAA, Pub. L. No. 115-91 (2017).
[71] As the SASC Report on the FY 2018 NDAA explains, "Decisions related to business systems could be more effectively handed [sic] by the entity coordinating business management and reform across the Department. Therefore, the committee recommends the shifting of several major Chief Information Officer functions to the Chief Management Officer organization, and consolidation of the rest in a Chief Information Warfare Officer." (page 210) The report also notes, "The committee's intent is not for the addition of large internal bureaucracy to manage these new responsibilities, and expects the Chief Management Officer to instead gather those personnel currently fulfilling these roles within the Office of the Secretary of Defense and the Chief Information Officer organization."

Ultimately, a DoD CMO with broader authority, including budget allocation and reprogramming authority, may be more successful at overseeing business processes and enforcing incremental development. DoD's report to Congress on the CMO reorganization clarified that both team leaders and reform leaders will complete initial BPR assessments across eight lines of business operations including human resources, health care, financial management, and other functional areas.[72] The CCA requirement for BPR will be fulfilled by this process, making the legal provision redundant. Additionally, the FY 2018 NDAA gives the CMO the duty of "serving as the principal advisor to the Secretary and the Deputy Secretary on establishing policies for, and directing, all enterprise business operations of the Department, including planning and processes, business transformation, performance measurement and management, and business information technology management and improvement activities and programs, including the allocation of resources for enterprise business operations and unifying business management efforts across the Department."[73] Maintaining and reinforcing this budget authority is necessary for empowering the CMO and ensuring effective IT management and BPR.

Other recent changes underline that the CIO role is in transition. The Navy announced in March 2018 that it would consolidate the functions of CIO and CMO under a single office. A Navy memo stated that the consolidation would "contribute to a leaner, more focused approach to business transformation and will help facilitate greater cross-enterprise collaboration on critical issues that require an enterprise approach."[74] Then-HASC Chairman Mac Thornberry's initial version of the FY 2019 NDAA would have eliminated all but five of the CIOs in DoD.[75] The final, amended version of the bill did not contain this language.[76]

The CIO role is evolving as technology evolves, with additional demands creating new responsibilities, positions, and structures that do not fit neatly into CCA's concept of a single CIO. Many people familiar with CCA compliance believe planning for cybersecurity to be among the most important elements of CCA. Responsibility for DoD's cybersecurity strategy rests with the Deputy CIO for Cyber Security, and component CIO offices similarly have individuals in the role of chief information security officer (CISO). In July 2018, DoD hired its first chief data officer (CDO), a position already created in the Air Force and Army. The rise of the CISO, CMO, and now CDO reveals the complexity of the CIO office along with a need for flexibility and collaborative accountability.

See *Senate Armed Services Committee Report to Accompany S.1519 – National Defense Authorization Act for Fiscal Year 2018,* July 10, 2017, accessed June 18, 2018, https://www.congress.gov/115/crpt/srpt125/CRPT-115srpt125.pdf.

[72] Office of the Secretary of Defense, *Report to Congress Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization* ("Section 901 Report"), August 2017, accessed June 18, 2018, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.

[73] Section 910 of FY 2018 NDAA, Pub. L. No. 115-91 (2017). Codified at 10 U.S.C. § 132a.

[74] Under Secretary of the Navy Thomas B. Modly, "Restructure of Secretariat Functions," March 16, 2018, accessed June 18, 2018, http://www.navy.mil/undersec/docs/Secy_reorg_memo.pdf.

[75] See Section 917 of HASC Chairman's Mark of H.R. 5515, "FY19 National Defense Authorization Bill," accessed June 18, 2018, https://armedservices.house.gov/sites/republicans.armedservices.house.gov/files/wysiwyg_uploaded/FY19%20NDAA%20Chairman%27s%20Mark%20Final.pdf.

[76] H.R. 5515 ("National Defense Authorization Act for Fiscal Year 2019"), accessed June 18, 2018, https://www.congress.gov/bill/115th-congress/house-bill/5515/text.

Document-based Compliance Is Slow and Adds Little Value

CCA compliance is completed using a series of standardized document approvals that take months to complete and rarely improve acquisition outcomes.[77] Instead of having an ongoing relationship with programs, CIO offices are often only asked to provide feedback to programs when they are facing urgent demands and impending milestone deadlines. Feedback at these points is typically administrative rather than substantive in nature. Numerous respondents shared this view of CCA compliance, voiced in conversations with the Military Services and Defense Agencies and from both the program and CIO perspective.

A representative from the Army's PEO enterprise information system office confirmed that he had never seen a CCA documentation package rejected for not being compliant.[78] The Army representative stated that the tool used to verify CCA documentation "is basically checking the box that the program is compliant."[79] A Military Service's CIO office CCA administrator stated that he would welcome the opportunity to be more involved with programs as they are developing their program strategy (specifically by working with integrated product teams), but described this approach as a luxury he did not have.[80]

CCA compliance is confirmed at major milestones, after full requirements have been developed.[81] It does not guarantee systems are initially designed for interoperability, information assurance, or risk management framework compliance, contrary to evidence-based practices. One official stated,

> *Doing the checklist, submitting it for review, and signing off on the checklist became a separate activity, almost an end unto itself. The engagement between program and CIO oversight started to be all about the checklist: when will the complete package be submitted, how long will it take to review, what more information do you need. The actual exchange flow waited for the run-up to the milestone, while other program efforts continued moving forward.*[82]

The revised process in DoDI 5000.75 is intended to address some of this situation, so that "program and oversight…interact more frequently as the program progresses, through either direct engagement upfront or preplanned technical and management assessments." DoDI 5000.75 governs only DBSs, however, which represent a fraction of DoD IT investments.

In a 2015 GAO survey of documentation requirements for 24 major weapon system programs, respondents consistently ranked CCA compliance as a low-value process and added commentary that

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[77] Program managers; DoD component CIOs; Deputy Assistant Secretary of Defense, Command, Control, Communications, Cyber, and Business Systems (DASD (C3CB)); and Navy Program Executive Officer of Enterprise Information Systems (PEO EIS), interviews with Section 809 panel, 2017 and 2018.
[78] Representative from Army's PEO EIS office, email with Section 809 Panel, August 16, 2017.
[79] Ibid.
[80] Military Service's CIO's office CCA administrator, interview with Section 809 Panel, September 2017.
[81] According to 2008 DoD guidance, the CIO is required to "certify, prior to each milestone A, B, or full rate production approval (or their equivalent), that a Major Automated Information System (MAIS) is being developed in accordance with the Clinger–Cohen Act (CCA) of 1996. It also requires the DoD CIO to submit timely notification of such certifications to the congressional defense committees." (DoD Deputy Chief Information Officer Memorandum: *Clinger–Cohen Act (CCA) Compliance Certification of Major Automated Systems (MAIS) for Fiscal Year (FY) 2008,* March 13, 2008).
[82] DoD office of Deputy Assistant Secretary of Defense for Command, Control, and Communication, Cyber, and Business Systems (DASD C3CB), email to Section 809 Panel, August 7, 2017.

CCA is out of date with current acquisition practices. This study also showed that it took on average 10 months to process CCA documentation, about 6 months to complete and another 4 months for review.[83]

Guidance in DoD components confirms this slow turnaround. The Air Force's compliance guide, for instance, stipulates, "The Program Manager should submit the CCA compliance documentation for CCA elements 6, 8, 9, and 11 to SAF/CIO A6XA at least four months before the milestone review or contract award is scheduled to allow sufficient time for review and revisions."[84] In December 2016, the Air Force conducted a Rapid Improvement Event to streamline the CCA process. People involved in that study explained that CCA compliance was seen as a *chokepoint* in the acquisition process. One program took 525 days to produce and coordinate CCA documents. Legacy programs and new starts commonly take 13 months to coordinate approvals, delays added on top of the time required to create documents.[85] One Air Force enterprise architect reported that CCA compliance has nothing to do with the program's execution, adding that the Air Force Research Laboratories have an office just for compliance. As a result of this study, the Air Force delegated approval authority to the PM for eight of the 11 elements. The Air Force CIO retains approval for elements 8, 9, and 11.

DISA Defense Information Technology Contracting Organization reported that it takes 6 to 8 weeks to process CCA compliance documentation. The people processing the approvals often lack the background to provide guidance, so it becomes a paperwork exercise instead of strategic planning.[86] The Army CIO office reported that CCA packages spend additional time going through legal review with the Army Office of General Counsel.[87] Some of this time comes from mapping existing program documents to the CCA compliance checklist tool. One individual involved in this compliance exercise suggested that documents are simply too long to be useful, giving the example of mining a 150-page acquisition strategy for evidence of compliance. He observed that briefings can produce better feedback for programs than documents, and can do so more efficiently. The same CIO office said that the CIO review of these documents does not affect other enterprise decisions or strategies.

The 2016 revision of OMB Circular A–130 acknowledges the checklist mentality problem in federal IT acquisition. The circular emphasizes three strategic priorities: real-time knowledge of the environment, proactive risk management, and shared responsibility for privacy and security of information. The authors of the circular explain that "we must move away from periodic, compliance-driven assessment exercises [….] Throughout the circular, we make clear the shift away from check-list exercises and toward the ongoing monitoring, assessment, and evaluation of Federal information resources."[88] The need for continuous monitoring of federal and DoD IT suggests the processes put in place by CCA, despite good intentions, are no longer relevant.

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[83] GAO, *DOD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies*, *GAO-15-192,* February 2015, accessed July 2, 2018, http://www.gao.gov/assets/670/668629.pdf.
[84] Clinger–Cohen Act (CCA) Compliance, AFMAN 17-1402, 7-8 (2018).
[85] Interview with Section 809 Panel, February 2, 2018.
[86] DISA Defense Information Technology Contracting Organization (DITCO), interview with Section 809 Panel, February 14, 2018.
[87] Army CIO office, interview with Section 809 Panel, February 2018.
[88] "Managing Federal Information as a Strategic Resource," Office of Management and Budget, July 27, 2016, accessed October 23, 2018, https://obamawhitehouse.archives.gov/blog/2016/07/26/managing-federal-information-strategic-resource

CCA Overlaps with Other IT Legislation, Regulations, and Policy

Overlap exists between CCA compliance and other laws, regulations, and policy. These other requirements arguably meet the same needs that CCA was intended to fulfill. Table C-2 (in Appendix C) details these many redundancies, which include overlap with the planning, programming, budgeting, and execution process; statutes such as 10 U.S.C. § 2222, Information Technology: Additional Responsibilities of Chief Information Officers, and 10 U.S.C. § 2223a, Information Technology Acquisition Planning and Oversight Requirements, as well as other DoD policies. As discussed above, CCA compliance is additive to traditional acquisition processes, which require programs to demonstrate similar strategic planning in such documents as the Acquisition Strategy and Economic Analysis.

Newer federal laws governing IT acquisition better reflect the current acquisition and technology environment. The Federal Information Security Management Act (FISMA) of 2002 was enacted as part of the 2002 E-Government Act and was amended in 2014 by the Federal Information Security Modernization Act to address evolving security concerns.[89] FISMA added several new cybersecurity provisions to Title 44 of U.S. Code and amended CCA provisions to clarify requirements for information security.[90] Other changes included less overall reporting and more use of continuous monitoring in systems.[91]

In many ways, FITARA has created a more modern process for achieving transparency and oversight. As mentioned above, FITARA bolstered much of CCA that had not been fully implemented and codified much of the guidance that OMB had issued in the preceding decade. FITARA led to the IT Dashboard, a publicly available tool showing agencies' spending on IT and their performance on the biannual FITARA scorecard, which originally assessed agencies on five metrics.[92] These scorecard metrics have been updated to reflect changes in technology and federal IT laws, with 2018 bringing two new metrics for cybersecurity and agency implementation of the Modernizing Government Technology (MGT) Act.[93] Because the scorecard is a living document, there is speculation that older metrics will drop off the scorecard once desired progress has been achieved, and more relevant metrics will be added.[94]

DoD remains only partially compliant with FITARA, despite FITARA's successes in improving CIO authority and other features of federal IT management. Originally, the only aspect of FITARA that created new mandates for DoD was the requirement for annual reporting about data center

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[89] See Title III of E-Government Act of 2002, Pub. L. No. 107-347 (2002). Federal Information Security Modernization Act of 2014, Pub. L. No. 113-283 (2014).
[90] See 44 U.S.C. §§ 3551–3559.
[91] "Risk Management: FISMA Background," National Institute of Standards and Technology, Computer Security Resource Center, accessed October 23, 2018, https://csrc.nist.gov/Projects/Risk-Management/Detailed-Overview.
[92] The original metrics were Agency CIO authority enhancements, Transparency and risk management, Portfolio review, Data center optimization initiative, whether CIO's boss is Secretary or Deputy Secretary, and CIO Status. In 2017, the Scorecard changed to include metrics on software licenses and whether CIOs were acting or permanent. See www.itdashboard.gov and "A Look Back: How the FITARA Scorecards Have Evolved," MeriTalk, accessed September 6, 2018, https://www.meritalk.com/articles/a-look-back-how-the-fitara-scorecards-have-evolved/.
[93] Oversight and Government Reform, *OGR Biannual Scorecard – May 2018* (May 2018 FITARA Scorecard), accessed September 6, 2018, https://oversight.house.gov/wp-content/uploads/2018/05/OGR-Scorecard-6.0-v2.pdf.
[94] "Agencies Could Be Graded on More than FITARA under New Scorecard," Aaron Boyd, NextGov.com, accessed September 6, 2018, https://www.nextgov.com/cio-briefing/2018/03/agencies-could-be-graded-more-fitara-under-new-scorecard/146694/.

consolidation.[95] The scorecard now assesses DoD, fully or partially, on all metrics except for cybersecurity, and the agency has consistently earned Ds and Fs. DoD has been called to testify about its persistent poor performance on the scorecard, with lawmakers seeing opportunity to use this tool to improve DoD's IT management and reporting.[96]

As IT acquisition continues to rapidly evolve, effective legislation and guidance will look more like FITARA, FISMA, or the MGT Act, all of which provide increased flexibility and more effective oversight. Much of this legislation owes it effectiveness to the precedent set by CCA, but future innovation will not come from processes defined by an existing law that is more than 2 decades old. DoD, in particular, has an acquisition system already robust enough to ensure strategic planning, but, also bureaucratic enough to need help evolving its IT acquisition practices, so it can more readily innovate.

Conclusions

In 1996, CCA instilled discipline in federal IT acquisition, but it has outlived its usefulness. The real-world effect of CCA compliance has been to add complexity and checklist-based documentation requirements atop DoD's existing acquisition bureaucracy, creating a slow and frustrating process for programs that provides limited value to CIOs.

DoD's IT acquisition can be made more efficient by reducing redundancies and checklist requirements. CCA requires many of these redundant and low value-added provisions from which DoD should be exempted. Several initiatives recognize the burden of CCA compliance and propose solutions to mitigate it, including the revised guidance for business systems in DoDI 5000.75 and the Air Force's streamlined process for CCA compliance.

Exempting DoD from CCA is one step in streamlining IT acquisition, but not the final step. DoD must continue to shift toward more strategic, collaborative processes that restore accountability to the appropriate individuals. It is imperative that DoD continue to follow many of the best practices mandated by CCA and enforced by newer laws, including continuous assurance of cybersecurity, BPR, and the adoption of commercial technology and processes. Congress should not repeal CCA provisions altogether, because they may remain useful for civilian agencies.

Congress should exempt DoD from the CCA provisions in Title 40 and instruct DoD to replace the 11 CCA checklist requirements in the DoDI 5000.02 and other acquisition policy documents with a truly strategic, outcome-oriented IT acquisition process that empowers the lower-level workforce, shortens delivery schedules, and avoids paperwork for its own sake. Once Congress has approved the exemption of DoD from CCA provisions, DoD and OMB should modify existing policy and guidance documents to reflect these changes.

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[95] DoD, "Plan for Implementing the Federal Information Technology Acquisition Reform Act (FITARA)," October 15, 2015, Enclosure 1, accessed June 18, 2018, https://www.defense.gov/Portals/1/Documents/DoD_FITARA_Implementation_Plan_Oct15.pdf.
[96] "Hearing: The Federal Information Technology Acquisition Reform Act (FITARA) Scorecard 6.0," Oversight and Government Reform, accessed September 6, 2018, https://oversight.house.gov/hearing/the-federal-information-technology-acquisition-reform-act-fitara-scorecard-6-0/.

Implementation

Legislative Branch

- Exempt DoD from 40 U.S.C. Subtitle III (Clinger–Cohen Act).
- Delete 10 U.S.C. § 2224 note (Strategy on Computer Software Assurance), which has become obsolete.[97]
- Direct DoD, in the legislative history of this exemption, to eliminate all 11 of its CCA-related CIO document approval requirements. These include the document approval requirements with language derived from 40 U.S.C. Subtitle III, 41 U.S.C. § 2308, which requires that the FAR support modular contracting, and 10 U.S.C. § 2224 note.
- Direct DoD leadership to acquire IT strategically by empowering the lower-level workforce, shortening delivery schedules, and avoiding paperwork for its own sake.

Executive Branch

- Revise DoDI 5000.02 to eliminate the checklist requirement under Table 10 of Enclosure 1, CCA Compliance. The checklist should be replaced with guidance established by the CMO and other officials as empowered by the Secretary of Defense.[98]
- Revise DoDI 5000.02 to eliminate the CCA requirements under Section 3 of Enclosure II, Requirements Applicable to all Programs Containing Information Technology.
- Revise DoDI 5000.74 to eliminate Section 2 and Table 2 of Enclosure 7, Acquisition Considerations for IT within Services.[99]
- Revise DoDI 5000.75 to delete references to CCA, including in Table 4: Statutory Requirements of Appendix 4A: Supporting Information.[100]
- Revise Section 9 of Circular A-130, Managing Information as a Strategic Resource to exempt DoD from the CCA provisions in Title 40.[101]

Note: Explanatory report language and draft legislative text can be found in the Implementation Details subsection at the end of Section 3.

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[97] This note section of Title 10 required DoD to develop by the end of FY 2011 a "strategy for assuring the security of software and software-based applications." As the deadline expired years ago, the section is no longer relevant. See Section 932 of FY 2011 NDAA, Pub. L. No. 111-383 (2011).
[98] Operation of the Defense Acquisition System, DoDI 5000.02 (2017).
[99] Defense Acquisition Services, DoDI 5000.74 (2017), Enclosure 7: Acquisition Considerations for IT within Services.
[100] Business Systems Requirements and Acquisition, DoDI 5000.75 (2017), Appendix 4A: Supporting Information.
[101] OMB Circular No. A-130, *Managing Information as a Strategic Resource,* updated July 28, 2016, Section 9, 26, accessed June 20, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A130/a130revised.pdf.

Implications for Other Agencies

- Other federal agencies may not have the sophisticated IT acquisition oversight processes that exist in DoD. For this reason, repealing Subtitle III of Title 40 entirely might disrupt civilian agencies' IT acquisitions. Exempting DoD, however, would not have implications for other agencies.

Recommendation 45: Create a pilot program for contracting directly with information technology consultants through an online talent marketplace.

Problem

Work in the IT discipline often requires unique expertise of state-of-the-art technologies best provided by independent consultants. These outside experts can bring a specialized skill or new perspective at key decision points in long-term programs or efforts. Being able to quickly and easily use such consulting services to supplement existing IT support ensures government programs can succeed in today's rapidly evolving IT landscape. This real-time flexibility is hard to achieve within the limitations of federal hiring and contracting practices. IT professionals do not always want to become full-time employees or navigate the complexities of becoming a prime government contractor or subcontractor. Instead, such highly qualified professionals choose to work as independent contractors in the *gig* or *freelance economy*, often finding work through online talent marketplaces. The federal government needs to acquire IT experts more in line with commercial best practices, improving the speed, cost, and quality of resources that support complex IT solutions.

Background

Today's workforce is modular and flexible, characterized by the concept of the *gig economy,* a term that describes the popularity of freelance work for both employees and employers. This kind of work has become more prominent with the rise of companies like Uber as well as other technology-enabled platforms that match workers with short-term or intermittent jobs. In the gig economy, employers can use the unique skill sets of independent contractors for specialized projects or limited periods without taking on the liability and expense of full-time employees. Approximately 10 percent of workers count their primary job as contingent or an alternative employment arrangement, with more people supplementing traditional jobs with freelance work.[102] In total, freelance workers contribute approximately $1.4 trillion annually to the American economy.[103] These freelance working relationships will increase dramatically in the next decade, largely fueled by online talent marketplaces. By 2027, most of the American workforce is predicted to be freelance workers.[104]

IT professionals commonly work as independent consultants to provide short-term assistance. SAP, one of the largest business software companies in the world, trains and certifies numerous

[102] "Contingent and Alternative Employment Arrangements News Release," Bureau of Labor Statistics, June 7, 2018, accessed July 6, 2018, https://www.bls.gov/news.release/conemp.htm.
[103] "Upwork Press Release," Upwork, accessed October 19, 2018, https://www.upwork.com/press/2017/10/17/freelancing-in-america-2017/.
[104] Ibid.

IT companies and independent consultants to provide services to support SAP clients. Hundreds of companies provide consultants certified in SAP skill sets as needed to support implementation and integration of SAP systems. "Nearly three-fourths of all SAP-related jobs last somewhere between four and 12 months, with the greater percentage of those falling in the four- to six-month range."[105] Often, these temporary positions fill a growing IT knowledge gap. The 2017 Global Knowledge Salary Report indicated that more than two-thirds of IT decision-makers recognize "a gap between their team's skill levels and the knowledge required to achieve organizational objectives."[106]

The most in-demand skills sets for both the private and public sector are cloud computing, cybersecurity, and networking. An estimated 285,000 open cybersecurity positions exist in the federal government, with a global projected shortage of 1.8 million by 2022.[107] Tyson Meadors, director of cybersecurity policy at the National Security Council, notes that individuals with these skills move frequently between jobs in the public and private sectors, adding that the government needs to make sure "we have the ability to allow people to go and come from federal service over the course of their careers."[108]

In the private sector, business structures are transforming to reflect the modularity and flexibility of the digital, on-demand workforce enabled by online talent marketplaces. The government is lagging behind this trend. Accenture's *Workforce Marketplace* report predicts that by 2022, organizations that resist these technological changes and cling to old bureaucratic business models "will experience rapid deterioration of market power."[109] The government must be more intentional about following commercial innovations in managing its workforce, beginning with IT specialists. The bureaucratic government model no longer fits the way people want and need to work in the digital information economy.

Discussion

PMs Struggle to Use IT Consultants Strategically

The ability to rapidly obtain specialized IT support is particularly critical as the federal government acquires state-of-the-art IT and modernizes its complex web of legacy systems. As IT solution complexity grows, programs will continue to need immediate IT consultant services to provide independent, objective advice and recommendations. These consultants bring specialized expertise and commercial best practices that maximize the business value of IT systems. The specialized skill sets

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[105] Americas' SAP Users' Group (ASUG), *Seeking Short-Term SAP Superheroes: The Predicament of the SAP Gig Economy, 2018,* 3, accessed October 19, 2018, https://blog.asug.com/hubfs/Talent%20Hub/2018_GIG_WP_v5.pdf.
[106] Global Knowledge Training, *2017 IT Skills and Salary Report: A Comprehensive Study from Global Knowledge*, 6, accessed October 19, 2018, https://mindhubpro.pearsonvue.com/v/vspfiles/documents/2017_Global_Knowledge_SalaryReport.pdf.
[107] "Retrained agency employees can be a key source of cybersecurity talent, NSC official says," March 8, 2018, Scoop News Group, accessed October 19, 2018, https://www.fedscoop.com/agencies-can-retrain-employees-get-cyber-talent/. Center for Cyber Safety and Education, *2017 Global Information Security Workforce Study: Benchmarking Workforce Capacity and Response to Cyber Risk,* accessed October 19, 2018, https://iamcybersafe.org/wp-content/uploads/2017/07/N-America-GISWS-Report.pdf.
[108] "Retrained agency employees can be a key source of cybersecurity talent, NSC official says," March 8, 2018, Scoop News Group, accessed October 19, 2018, https://www.fedscoop.com/agencies-can-retrain-employees-get-cyber-talent/.
[109] Accenture, *Workforce Marketplace: Invent Your Future,* 2017, 13, accessed October 19, 2018, https://www.accenture.com/t20180803T070620Z__w__/us-en/_acnmedia/Accenture/next-gen-4/tech-vision-2017/pdf/Accenture-TV17-Trend-3.pdfla=en?la=en.

needed by the government will become harder to predict and procure as technology continues to evolve.

PMs use consultants for both strategic and tactical guidance, which overlap to varying degrees. Strategic consultants provide guidance at key decision points for issues related to cloud computing, systems analysis, and architecture. Tactical consultants provide technical expertise in areas such as cybersecurity, network management, design and integration, programming, and data conversion.

Specialized IT consultants command a high hourly rate in both the commercial marketplace and on government contracts. Typical rates on government contracts range from approximately $200 to $400 per hour for job titles including systems architect, BPR specialist, database specialist, informatic specialist, and subject matter expert (SME). One contractor rate sheet showed a level-one systems architect billing at approximately $200 per hour, a level-three BPR specialist at $222 per hour, and a level-three SME at nearly $400 per hour.[110] Many of these specialists remain permanently on contract; others are brought in for short consulting projects. In the commercial marketplace, such specialists earn similar wages. These unique skill sets justify high wages and empower consultants to accept only those working conditions that suit them.

Faced with an immediate need for new expertise on specific information systems or technological capabilities, a PM managing a multibillion-dollar budget may lack direct access to the global marketplace of individual IT consultants and struggle to get help from the most qualified individuals. An example from the Army illustrates this challenge. The PM for a defense business system spent months troubleshooting an issue with slow logons that was affecting user productivity, but was unable to resolve it by working with the OEM and system integrator. Program staff tried to debug the problem via satellite, creating additional delays. The PM determined the problem needed to be solved by a system architect with expertise in large-scale computing and was aware of an independent consultant with decades of experience in related work. Ultimately, there was no mutually agreeable way to use this person's expertise either as a prime or subcontractor. He did not meet the requirements under the existing Systems Engineering and Technical Assistance (SETA) effort because his rate was too high, and he did not meet educational requirements for the labor description categories in the SETA contract. The expert was also unwilling to become a prime contractor due to the amount of paperwork and time required, a known barrier to entry for small businesses seeking to work directly with the federal government.[111] Five years later, performance problems continue to linger.

In such situations, government PMs have limited strategies for obtaining the right IT expertise. Several acquisition routes are available when the government needs to use IT consulting services. Many of these acquisition strategies are sufficient for maintaining a static IT workforce dedicated to a program, but none of them are ideal for short-term situations in which an outside expert is needed quickly to provide strategic problem-solving support informed by best commercial practices.

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[110] See, for example, Deloitte's contractor-site hourly rates for the federal government, accessed October 19, 2018, https://www2.deloitte.com/content/dam/Deloitte/us/Documents/public-sector/us-fed-contractor-site-hourly-rates-10172014.pdf.
[111] Representative from Global Combat Support System – Army (GCSS-Army), discussion with Section 809 Panel, May 2018.

Full-time Employees

Programs may hire government employees who are permanently attached to an organization. These employees are hired by policies that are increasingly acknowledged as outdated, limited by the general service (GS) categorization and pay schema. It commonly takes up to 6 months to hire employees in this way and includes numerous certifications and accommodation of various hiring policies.

Recent and pending changes to direct hire authority acknowledge the need for expedited hiring processes. FAR 37.112, Government Use of Private Sector Temporaries, has been used to acquire short-term help, but the authority remains limited. It allows for "contracts with temporary help service firms for the brief or intermittent use of the skills of private sector temporaries." The authority for this temporary hiring comes from 5 CFR 300, Subpart E, which clarifies the temporary help must meet a critical need that is defined as "a sudden or unexpected occurrence" with the stipulation that "a recurring, cyclical peak workload, by itself, is not a critical need."

This type of authority is not enough to meet the demands of today's IT projects. The civil service needs better and faster access to science, technology, engineering, and math employees, as acknowledged in 2018 by then OPM Director Jeff Pon. Referring to changes recommended in the President's Management Agenda (PMA), he admitted, "The whole philosophy of having a job for life is a thing of the past."[112] Efforts to overhaul the federal workforce proposed in the PMA and the FY 2019 President's Budget are an attempt to fix the problem by retraining existing employees for IT positions and using more flexible hiring policies.[113] The FY 2019 NDAA provides DoD with direct hire authority for high-demand personnel, including for any position involved with cybersecurity.[114]

Additional problems hiring federal employees come from an outdated pay scale that lags behind market rates. The maximum pay rate is GS-15 step 10, which is approximately $165,000 with locality adjustment for the National Capital Region, translating to about $80/hour. For IT specialists, this pay scale is too low to compete with the commercial marketplace, and the lengthy bureaucratic hiring process is unappealing. In one case, Army Cyber Command sought to hire a midlevel specialist who was working for a large software firm. To create a reasonably attractive offer, the agency needed to add substantial recruitment bonuses and benefits to the top of the federal pay scale, and even then, the individual had to take a pay cut of more than $60,000 a year—which he reluctantly did to serve the government.[115]

Existing Contracts

PMs traditionally rely on expert consultants provided by the OEM such as SAP or consultants on existing SETA contracts. In such cases, the consultants' high labor costs are budgeted into the life of the contract. The PM will keep these resources on board so they are available when needed, although they often have extended periods of downtime when their skills are not called for. This OEM/SETA approach is costly. The government ultimately pays a high ongoing cost for these consultants without

[112] "Trump's management agenda ties together IT, data and workforce overhaul," Scoop News Group, March 20, 2018, accessed October 19, 2018, https://www.fedscoop.com/presidents-management-agenda-ties-together-data-workforce-overhaul/
[113] The White House, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2018: 7. Strengthening the Federal Workforce,* accessed October 19, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/02/ap_7_strengthening-fy2019.pdf
[114] Section 1101 of FY 2019 NDAA, Pub. L. No. 115-232 (2018).
[115] Representatives from Army Cyber Command, discussions with Section 809 Panel, August 2018.

obtaining sufficient value out of that resource. Worse, consultants' skills can atrophy or become suboptimal when they are not working within their niche or continuing to hone their knowledge and skills. The federal government does not keep pace with technological innovation in the private sector, one of many reasons to encourage easy movement between the two worlds.

For example, a consultant experienced with international military systems in disconnected environments was flown from Israel to Washington, D.C., once a month during a business system's development. His high wages were made even more costly with these additional travel costs, and he remained on the contract for more than 5 years. Because he was consulted only intermittently for problems related to disconnected operations, he was frequently available and assigned to simpler tasks for which he was overpaid. The program could have saved money by using and paying for this expert on an as-needed basis, meeting lower-level needs with other workers more suited to those tasks. The program was motivated to keep him on contract to avoid the time-consuming process of getting a new consultant on contract when the intermittent problems arose.

Using an existing SETA support contractor to bring in a technical expert involves many steps that take months to complete. The SETA contractor must find an adequate resource, negotiate a subcontracting agreement or employment agreement, provide a proposal, and negotiate an appropriate labor category and rate with the government. The process is also burdensome for independent consultants who become subcontractors. Discussions with several independent contractors revealed the following common steps:

- Complete a nondisclosure agreement and a teaming agreement with proposed rate structure. (2–3 days).
- Review and sign a subcontract agreement and statement of work that range from 25 to 100 pages (taking 3–6 weeks) and include the following:
  - Terms & Conditions
  - Numerous FAR/DFARS clauses
  - Certificate of insurance (one onerous requirement noted was liability insurance of $3 million)
  - Pricing templates
  - Representations & Certifications
  - Certification of no conflict of interest
  - Certification of good standing
  - Business size certification
  - Federal Funding Accountability and Transparency Act certification
  - W9 Request for taxpayer identification number and certification
  - Final negotiation of rates
  - Signed subcontracting agreement
- Registration in the System for Award Management (SAM) and if applicable in prime's invoicing systems (5 days).

This process is time-consuming and adds cost to the government. Some consultants use an attorney to review the subcontracting agreement, resulting in additional costs and time.[116] A subcontract administrator at a large prime contractor indicated the company's standard for obtaining signed subcontract agreements is 21 days from receipt of the purchase request; however, these timeframes can balloon by a few months.[117] All consultants stated they were at a disadvantage when negotiating their rate with prime contractors.

Creating a Blanket Purchase Agreement

Some federal agencies have devised creative strategies to buy independent consultants without excessively bureaucratic hiring procedures. GSA used the flexibility afforded by FAR 37.112 to establish a Blanket Purchase Agreement (BPA) with an 8(a) Business Development Program company to provide agency components the ability to quickly respond to brief or intermittent IT work requirements. Examples of hiring arrangements using this BPA include full-time personnel employed by the 8(a) and employees hired by the 8(a) as independent contractors. In an interview with the panel, a GSA official explained, "this BPA has become incredibly popular for short engagements," giving the example of using developers when "we just need a person or two, not an organization, to come in and work a specific project for a short time."[118]

Direct Contracting with Independent Consultants

Occasionally, the government contracts with independent consultants directly. In these cases, individuals must be registered in SAM and accept a prime contract with the government, engaging with a contracting process that includes requirements development, market research, competition, and negotiations. Even under simplified acquisition procedures, awarding such a contract would take at least 30–60 days to complete.

Simplified acquisition procedures are not the effective, expedited procurement solution for independent contractors they may appear to be. As the Section 809 Panel's *Volume 1 Report* and *Volume 2 Report* discuss, such simplified procedures are far from simple, burdened by complex and often conflicting guidance in multiple sections of the FAR.[119] Simplified acquisitions can end up looking more like a last resort than a preferred method. In theory, independent contractors can be acquired by using simplified acquisition procedures and staying below the simplified acquisition threshold of $250,000, assuming contracts are shorter than 7 months. Contracts could also be awarded using simplified procedures for certain commercial items under $7 million. In both cases, however, it is rare to find consultants acquired in this way, and the procedures remain more bureaucratic than simple. Even *simplified* contracting with consultants involves months of bureaucratic processes that can discourage both contractors and programs in need of help. As discussed in the *Volume 1 Report*,

[116] Army Enterprise Systems Integration Hub and Logistics Modernization Program, discussion with Section 809 Panel, August 2018.
[117] Former CACI subcontract administrator, discussion with Section 809 Panel, February 2018.
[118] GSA contracting officer, discussion with Section 809 Panel, July 2018.
[119] See Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3* (2018), Section 1: Commercial Buying, and *Volume 2 of 3* (2018), Section 3: Simplified Commercial Source Selection.

purchase of commercial items has actually decreased since the implementation of FAR Part 12 in 1995, with recent numbers showing a 29 percent decline from FY 2012 to FY 2017.[120]

To expedite contracting and bypass government bureaucracy, one solution is the new concept of microconsulting, for which a consultant contracts with the government (or private organizations) for a short period of time. When used within the government, microconsulting contracts stay below the FAR micro-purchase threshold. This solution treats independent contractors like the commercial service they are, without burdening the acquisition with unnecessary contract clauses or conditions.

Skylight, founded in 2017, offers microconsulting services to the government. The coleader (and former cofounder of 18F, the innovation arm of GSA) explains it this way: "Not every problem requires a full-blown consulting engagement. Often times, a short burst of work on a specific topic is all that's needed to help propel government managers and teams forward." This approach is a means to, for example, "obtain quick advice on the suitability and trade-offs of using a particular architectural pattern, delivery practice, or technology from digital experts."[121] Purchases under the micro-purchase threshold would limit a PM from receiving a complete consulting engagement, corresponding to less than one week at the $10,000 threshold. This creative solution is appealing to PMs desperate for help, but its limits create the potential for workarounds and abuses where PMs buy many of these small engagements to stay under the threshold.

The legal community has established a process to acquire expert witnesses and consultants on short notice, but even these simplified documentation processes can take several weeks to months to complete. Acquiring these experts follows a simplified procedure, provided the procurement remains below the simplified acquisition threshold.[122] Although this process has a statutory exception to the Contracting in Competition Act (CICA), it still requires as a minimum a resume, funding documents, and a justification and approval document.[123]

A New Approach: Online Talent Marketplaces

Innovation in the commercial marketplace has combined the gig economy with e-commerce portals, creating numerous online talent marketplaces that match employers with employees or independent contractors who meet company needs. One of the largest talent marketplace companies, Indeed, has more than 200 million unique visitors per month.[124] Others include Upwork, Government Freelance Exchange (GovFlex), Freelancer, Gigster, ShortList, and PwC.

GovFlex, launched in 2016, is attempting to make this innovative workforce model available to the federal government. Designed to match independent contractors with federal agencies needing to access specific expertise quickly, GovFlex operates as an intermediary, profiting by assuming some of the bureaucratic burdens, terms, and conditions imposed on individuals and small businesses working

[120] Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 1 of 3* (2018), 17.
[121] Chris Cairns, Skylight Digital, interview with Section 809 Panel, May 7, 2018.
[122] Procurement Notice, 41 U.S.C. § 1708(b)(1)(G).
[123] Industrial mobilization; engineering, developmental, or research capability; or expert services, FAR 6.302-3(a)(2)(iii). The Army Lawyer: JAG Corps Professional Bulletin, 27-50-16-07, July 2016.
[124] "About Indeed," Indeed, accessed October 19, 2018, https://www.indeed.com/about.

with larger organizations. Currently operating only in the private sector, GovFlex leaders acknowledge the company has hit limitations bringing this marketplace to the government, including the current micro-purchase threshold. The company's latest move has been to bid on a contract with a government agency to create a virtual business center linking 30,000 companies and 50,000 consultants. GovFlex leaders are in discussion with GSA about providing similar services. The GovFlex talent marketplace connects with high-demand experts and shows details such as their skills and resume, past performance ratings, hourly rates, availability, and security clearance access. Similar to commercial talent marketplaces, consultants compete for work, and search algorithms match employer requirements to consultants nationwide.

These marketplaces provide solutions for employers to contract for the best talent faster and at lower cost. GovFlex provided a case study to illustrate. In 2016, Xerox solicited quotes from five Washington D.C., consulting firms. On average, the firms took 3 weeks to respond with quotes that included additional fees ranging from 40 to 100 percent. Xerox posted the same project on GovFlex and received quotes within 1 hour, saving $84,000 by going directly to the IT consultants.[125] Other companies show similar benefits. In a pilot program, Procter & Gamble delivered products faster and at lower cost 60 percent of the time by using a freelance talent management system instead of conventional methods.[126]

Congress continues to recognize the importance of aligning government buying to commercial practices and technology, most recently by promoting use of e-commerce portals. Section 846 of the FY 2018 NDAA directed GSA to "establish a program to procure commercial products through commercial e-commerce portals for purposes of enhancing competition, expediting procurement, enabling market research, and ensuring reasonable pricing of commercial products."[127] This initiative will deliver greater access to commercial innovation, increase opportunities to leverage commercial practices, and provide built-in competition of readily available supplies and services in the open marketplace. Based on similar technology, online talent marketplaces provide similar advantages for acquisition of commercial services.

Acquiring Independent Consultants as a Pilot of Readily Available Services

The Section 809 Panel has recommended new processes that will expedite procurement of readily available products and services (see Section 1), which if adopted, will subsume the existing commercial buying structure. The conceptual models for *readily available* acquisitions will encourage improved collaboration with industry to identify solutions and better leveraging of the dynamic market in which the government functions. Readily available services require no customization and include short-term expert consulting services. Some acquisitions will fall in the category of *readily available services with customization* that are consistent with existing private-sector practices. Services are considered customized when a performance work statement, statement of objectives, or other form of government-

[125] GovFLEX, "The Government Freelance Exchange White Paper," July 24, 2018.
[126] "On-Demand Talent vs. Legacy Labor Models: Key Stats," Greg Andrade, SpareHire Blog, January 11, 2018, accessed October 30, 2018, https://www.sparehire.com/blog/on-demand-talent-vs-legacy-labor-models-key-stats/.
[127] Section 846 of FY 2018 NDAA, Pub. L. No. 115-91 (2017). Codified at 41 U.S.C. 1901 note.

specific direction is necessary to describe the required services. Both of these approaches expedite and modernize the process of contracting with IT consultants.

Because it will take time for the *readily available* concept to be implemented, a pilot program for direct contracting with independent consultants using an online talent marketplace as a facilitator could help bridge the gap. The results of this pilot would illustrate the potential of the readily available concept and can inform its development. It also provides an additional tool for accessing the growing community of experts who prefer to offer their services on an ad-hoc basis. As a pilot of the readily available concept, this new authority helps begin transforming government processes to more closely resemble the efficiency and innovation of commercial best practices.

Conclusions

DoD should pilot an expedited contracting authority for IT consultants facilitated by an online talent marketplace tool with a qualified independent consultant list. This process would allow the federal government to contract quickly with experts in commercial IT, not experts in government-unique contracts. The talent marketplace concept follows both industry best practices and the Section 809 Panel's concept for acquiring products, services, and solutions that are *readily available* or *readily available with customization*.[128] DoD could use these two methods for contracting directly with independent consultants.

Consultant services could be purchased with a government purchase card (GPC) as the transaction method for ordering online via the Talent Marketplace, with no additional FAR-based contract necessary. Using a GPC as the procurement transaction method would align with commercial practices, replace the paper-based contracting process, and reduce procurement lead times. This new authority should be detailed with changes to current GPC guidance in FAR Part 13.

Alternatively, consultants could be purchased with a radically simplified contract that can be completed in less than 2 weeks. This authority should lie within the existing FAR Part 12 commercial framework, with the intent that it would model a simplified strategy for obtaining needed services from independent IT consultants. To highlight this approach as an innovative tool, the pilot program should have its own subpart of FAR Part 12, using the current authority of simplified procedures for certain commercial items falling under the threshold of $7 million.[129] Contracts would be limited to less than 12 months. This talent marketplace tool would leverage the best practices of commercial industry and presents an opportunity for DoD to gain access to the gig economy. By eliminating unnecessary intermediaries and bureaucracy, DoD would be able to access the right talent faster and at lower cost.

[128] Services are considered customized when a performance work statement, statement of objectives, or other form of government specific direction about how to perform the services is necessary to identify the services to be performed.
[129] Currently this authority exists in FAR 13.5, but Section 809 Panel recommendations in Volume 2 will consolidate all commercial buying policy into FAR Part 12. See *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3* (2018), Section 3: Simplified Commercial Source Selection.

Implementation

Legislative Branch

- Authorize a 2-year, governmentwide pilot program for contracting directly with IT consultants via an online talent marketplace. Direct GSA and OMB to implement the pilot and report back to Congress on results.

Executive Branch

Based on the results of the pilot, implement the following regulatory changes to permanently authorize the program.

- Change FAR/DFARS Part 13 to authorize the GPC as the purchasing *and* payment instrument for this pilot at the service level, in accordance with agency procedures and at the discretion of the Head of Contracting Activity (as identified in DFARS PGI 202.101).

- Create a new section FAR 12.7, Independent IT Consultant Services, that provides authority and guidance for contracting with IT consultants via the online talent marketplace. This change places it in the logical part of the FAR that primarily focuses on procurements of commercial products and services.

  - Contracts: Should take no longer than 2 weeks from solicitation to award and will follow these criteria:

    - **Qualification process for independent consultants:** Prequalify independent IT consultants based on professional qualifications, pricing, simplified past performance references on contracts of similar work, and National Agency Check with Inquiries (NACI) background check. Consultants must be the sole employee of their companies and will receive facilitated SAM registration as part of the onboarding process in the talent marketplace.

    - **Combined Public Announcement/Synopsis:** Agencies shall publicly post on Federal Business Opportunities (FedBizOpps) through an open continuous announcement the types of services desired and the process to become prequalified to perform IT Services categories in the online talent marketplace. FAR Part 12 contracts will be selected based on demonstrated competence and qualifications of prequalified consultants to perform the services at fair and reasonable prices. This combined open continuous announcement/synopsis will satisfy the synopsis requirements of FAR Subpart 5.207. Competition is established through market-based competition.

    - **Solicitations:** The contracting officer shall use a request for quote and to the maximum extent practicable include only those clauses:
      - Required to implement provisions of law or executive orders of commercial items, e.g., FAR 52.212-5.
      - Determined to be consistent with customary commercial practice, e.g., FAR 52.212-4.

- **Response Requirements:** Requirements are posted to the talent marketplace and independent consultant(s) express interest, to include as applicable professional qualifications, pricing, and past performance references. To the greatest extent possible the services will be procured as *readily available*. If a primary weapons system Quality Assurance Surveillance Plan, or security clearance is required, the services will be considered *readily available with customization* and response time will be adjusted as appropriate.

- **Basis of Award/Selection**: Use FAR 12.602 and abbreviated criteria to evaluate factors including technical, price, and past performance. Technical capability may be evaluated by how well the consultant's resume meets the proposed government requirement instead of predetermined subfactors. A technical evaluation may include examination of professional qualifications necessary for performance. Simplified past performance evaluation may be made on any reasonable basis, such as references or quality of work as assessed by the talent marketplace's online rating system of consultant job performance. Price reasonableness is based on multiple offers. Contracting officer will select the offer that is most advantageous to the government and briefly document the rationale for award.

- **Award:** Contracting Officer awards a two-page contract on a Standard Form 1449 contract that uses Block 27 to incorporate FAR 52.212-4, Contract Terms and Conditions Commercial Items.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 3.

Implications for Other Agencies

- The recommended changes to the FAR would apply to DoD and civilian agencies that use the FAR. Both DoD and civilian agencies will benefit from these recommendations.

Section 3
IT Procurement

Implementation Details

RECOMMENDED REPORT LANGUAGE

SEC. ___. EXEMPTION OF DEPARTMENT OF DEFENSE FROM CLINGER-COHEN ACT.

The section would exempt the Department of Defense from the Clinger-Cohen Act. The committee notes that at the time of its enactment in 1996, the Clinger-Cohen Act instilled discipline in information technology acquisitions within the federal agencies, including the Defense Department. In recent years, however, the real-world effect of Clinger-Cohen Act compliance has been to add complexity and checklist-based documentation requirements atop the existing acquisition bureaucracy. This has created a slow and frustrating process that provides limited value to the Department or its Chief Information Officers in executing a disciplined method for IT acquisition.

In the committee's view, exempting the Department of Defense from the Clinger-Cohen Act is a necessary condition for streamlining information technology acquisition. The committee notes that such streamlining should also include a continuing shift by the Department away from checklists and toward a more strategic, collaborative process that places both authority and accountability in the hands of appropriate individuals. This collaborative process should empower the workforce at all levels, shorten delivery schedules, and avoid paperwork for its own sake.

The committee emphasizes that the Department should continue to follow the best practices laid out under the Clinger-Cohen Act and subsequent laws. These best practices include continuous assurance of cybersecurity, business process reengineering, and the adoption of commercial technology and processes.

The committee does not recommend repealing the Clinger-Cohen Act since it may remain a useful tool for civilian agencies.

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SEC. ___. EXEMPTION OF DEPARTMENT OF DEFENSE FROM CLINGER-COHEN ACT.

(a) EXEMPTION.—Paragraph (2) of section 11101 of title 40, United States Code, is amended by inserting before the period at the end the following: ", but does not include the Department of Defense or a military department".

(b) REPEAL OF OBSOLETE PROVISION.—Section 932 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 (Public Law 111-383; 10 U.S.C. 2224 note), relating to a strategy on computer software assurance, is repealed.

Title 40—PUBLIC BUILDINGS, PROPERTY, AND WORKS

SUBTITLE III—INFORMATION TECHNOLOGY MANAGEMENT

[NOTE: Subtitle III is popularly known as the Clinger-Cohen Act]

CHAPTER 111—GENERAL

Sec.
11101. Definitions.
11102. Sense of Congress.
11103. Applicability to national security systems.

§11101. Definitions

In this subtitle, the following definitions apply:

(1) COMMERCIAL ITEM.—The term "commercial item" has the meaning given that term in section 103 of title 41.

(2) EXECUTIVE AGENCY.—The term "executive agency" has the meaning given that term in section 133 of title 41***, but does not include the Department of Defense or a military department***.

(3) INFORMATION RESOURCES.—The term "information resources" has the meaning given that term in section 3502 of title 44.

(4) INFORMATION RESOURCES MANAGEMENT.—The term "information resources management" has the meaning given that term in section 3502 of title 44.

(5) INFORMATION SYSTEM.—The term "information system" has the meaning given that term in section 3502 of title 44.

(6) INFORMATION TECHNOLOGY.—The term "information technology"—

(A) with respect to an executive agency means any equipment or interconnected system or subsystem of equipment, used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement,

control, display, switching, interchange, transmission, or reception of data or information by the executive agency, if the equipment is used by the executive agency directly or is used by a contractor under a contract with the executive agency that requires the use—

(i) of that equipment; or

(ii) of that equipment to a significant extent in the performance of a service or the furnishing of a product;

(B) includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including support services), and related resources; but

(C) does not include any equipment acquired by a federal contractor incidental to a federal contract.

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Section 932 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011

(Public Law 111-383; 10 U.S.C. 2224 note)

~~**SEC. 932. STRATEGY ON COMPUTER SOFTWARE ASSURANCE.**~~

~~(a) STRATEGY REQUIRED.—The Secretary of Defense shall develop and implement, by not later than October 1, 2011, a strategy for assuring the security of software and software-based applications for all covered systems.~~

~~(b) COVERED SYSTEMS.—For purposes of this section, a covered system is any critical information system or weapon system of the Department of Defense, including the following:~~

~~(1) A major system, as that term is defined in section 2302(5) of title 10, United States Code.~~

~~(2) A national security system, as that term is defined in [former] section 3542(b)(2) of title 44, United States Code [see now 44 U.S.C. 3552(b)(6)].~~

~~(3) Any Department of Defense information system categorized as Mission Assurance Category I.~~

~~(4) Any Department of Defense information system categorized as Mission Assurance Category II in accordance with Department of Defense Directive 8500.01E.~~

~~(c) ELEMENTS.—The strategy required by subsection (a) shall include the following:~~

~~(1) Policy and regulations on the following:~~

~~(A) Software assurance generally.~~

~~(B) Contract requirements for software assurance for covered systems in development and production.~~

~~(C) Inclusion of software assurance in milestone reviews and milestone approvals.~~

~~(D) Rigorous test and evaluation of software assurance in development, acceptance, and operational tests.~~

~~(E) Certification and accreditation requirements for software assurance for new systems and for updates for legacy systems, including mechanisms to monitor and enforce reciprocity of certification and accreditation processes among the military departments and Defense Agencies.~~

~~(F) Remediation in legacy systems of critical software assurance deficiencies that are defined as critical in accordance with the Application Security Technical Implementation Guide of the Defense Information Systems Agency.~~

~~(2) Allocation of adequate facilities and other resources for test and evaluation and certification and accreditation of software to meet applicable requirements for research and development, systems acquisition, and operations.~~

~~(3) Mechanisms for protection against compromise of information systems through the supply chain or cyber attack by acquiring and improving automated tools for—~~

~~(A) assuring the security of software and software applications during software development;~~

~~(B) detecting vulnerabilities during testing of software; and~~

~~(C) detecting intrusions during real-time monitoring of software applications.~~

~~(4) Mechanisms providing the Department of Defense with the capabilities—~~

~~(A) to monitor systems and applications in order to detect and defeat attempts to penetrate or disable such systems and applications; and~~

~~(B) to ensure that such monitoring capabilities are integrated into the Department of Defense system of cyber defense-in-depth capabilities.~~

~~(5) An update to Committee for National Security Systems Instruction No. 4009, entitled 'National Information Assurance Glossary', to include a standard definition for software security assurance.~~

~~(6) Either—~~

~~(A) mechanisms to ensure that vulnerable Mission Assurance Category III information systems, if penetrated, cannot be used as a foundation for penetration of protected covered systems, and means for assessing the effectiveness of such mechanisms; or~~

~~(B) plans to address critical vulnerabilities in Mission Assurance Category III information systems to prevent their use for intrusions of Mission Assurance Category I systems and Mission Assurance Category II systems.~~

~~(7) A funding mechanism for remediation of critical software assurance vulnerabilities in legacy systems.~~

~~(d) REPORT.—Not later than October 1, 2011, the Secretary of Defense shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] a report on the strategy required by subsection (a). The report shall include the following:~~

~~(1) A description of the current status of the strategy required by subsection (a) and of the~~

~~implementation of the strategy, including a description of the role of the strategy in the risk management by the Department regarding the supply chain and in operational planning for cyber security.~~

~~(2) A description of the risks, if any, that the Department will accept in the strategy due to limitations on funds or other applicable constraints.~~

RECOMMENDED REPORT LANGUAGE

SEC. ___. PILOT PROGRAM FOR AUTHORITY TO CONTRACT DIRECTLY WITH INFORMATION TECHNOLOGY CONSULTANTS.

This section would provide authority to implement a pilot program under which designated agencies may contract directly with independent information technology consultants in an expedited manner. This authority may be exercised either using the expedited contracting processes under the Simplified Procedures for Certain Commercial Items designated at section 3305 of title 41, United States Code, or section 2304(g) of title 10, United States Code, or by using the government purchase card as the purchasing and payment instrument. This section includes a provision that directs the establishment of an online talent marketplace to facilitate the process of identifying and contracting with independent information technology consultants.

The committee notes that work in the specialized discipline of information technology often requires unique expertise with state-of-the-art technologies best provided by independent consultants. These consultants are outside experts able to bring a fresh – often commercial – perspective to government programs or efforts. Many of these highly qualified professionals choose to work as independent contractors in the gig or freelance economy, often finding work through online talent marketplaces. The committee also notes the current government model no longer fits the way people work in the digital information economy, and that the government needs an alternative to its contracting practices for this digital market.

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SEC. ___. PILOT PROGRAM FOR AUTHORITY TO CONTRACT DIRECTLY WITH INFORMATION TECHNOLOGY CONSULTANTS.

(a) PILOT PROGRAM.—

(1) AUTHORITY.—The Director of the Office of Management and Budget shall implement a pilot program under which agencies designated under paragraph (3) may use expedited contracting authority in accordance with this section for contracting directly with independent information technology consultants. The objective of the pilot program shall be to enable Government-wide use of such expedited contracting authority.

(2) ONLINE TALENT MARKETPLACE.—To support the pilot program, the Administrator of the General Services Administration shall establish an online talent marketplace for use by agencies participating in the pilot program to contract directly with independent information technology consultants.

(3) DESIGNATED AGENCIES.—The Director shall designate which executive agencies are authorized to participate in the pilot program under this section. One of the agencies designated shall be the Department of Defense. Such designations shall be made not later than 60 days after the date of the enactment of this Act.

(b) DURATION.—

(1) EXPIRATION.—Except as provided in paragraph (2), the pilot program shall terminate three years after the date of the enactment of this Act.

(2) AUTHORITY FOR PERMANENCE.—The authorities under the pilot program under this section shall not terminate if, before the end of the period applicable under paragraph (1), the Director determines, based upon the experience under the pilot program, that those authorities should remain in effect.

(c) IMPLEMENTATION OF ONLINE TALENT MARKETPLACE.—The Administrator shall complete the implementation of the online talent marketplace and ensure it is available for use by the designated agencies under the pilot program within one year of the date of the enactment of this Act.

(d) METRICS.—The Director, in consultation with the Administrator and the designated agencies, shall establish and track metrics to be used to evaluate the effectiveness of the pilot program.

(e) ELEMENTS.—Under the pilot program, a designated agency —

(1) may use the online talent marketplace to identify and select pre-qualified independent information technology consultants; and

(2) may acquire the services of independent information technology consultants using either—

(A) an expedited contracting process, described in Subpart 12.7 of the Federal Acquisition Regulation, using the authority of Simplified Procedures for Certain Commercial Items for purchases designated at section 3305 of title 41, United States Code, or section 2304(g) of title 10, United States Code, as applicable to the agency implementing the program; or

(B) the Government Purchase Card as the purchasing and payment instrument.

(f) REPORTING REQUIREMENTS.—The Director shall submit to the appropriate congressional committees the following reports:

(1) INITIAL REPORT.—Not later than 180 days after the date of the enactment of this Act, the Director in consultation with the Administrator shall submit a report providing—

(A) a comprehensive description of the pilot program;

(B) the metrics to be used to assess the effectiveness of the pilot program; and

(C) such other matters relating to the pilot program as the Director considers appropriate.

(2) FINAL REPORT.—Not later than three years after enactment of this Act, the Director in consultation with the Administrator shall submit a report that includes the following:

(A) An updated comprehensive description of the pilot program.

(B) An assessment of the pilot program using the metrics established pursuant to subsection (d).

(C) The Director's final assessment of whether program should continue.

(D) Recommendations for any changes to, or exemptions from, laws necessary to improve the expedited contracting authority under the pilot program.

(g) DEFINITION.—In this section, the term "appropriate congressional committees" means the following:

(1) The Committees on Armed Services of the Senate and House of Representatives.

(2) The Committee on Homeland Security and Governmental Affairs of the Senate and the Committee on Oversight and Government Reform of the House of Representatives.

(3) The Committee on Small Business and Entrepreneurship of the Senate and the Committee on Small Business of the House of Representatives.

RECOMMENDED REGULATORY REVISIONS

1.603 Selection, appointment, and termination of appointment for contracting officers.

1.603-1 General.

41 U.S.C. 1702(b)(3)(G) requires agency heads to establish and maintain a procurement career management program and a system for the selection, appointment, and termination of appointment of contracting officers. Agency heads or their designees may select and appoint contracting officers and terminate their appointments. These selections and appointments shall be consistent with Office of Federal Procurement Policy's (OFPP) standards for skill-based training in performing contracting and purchasing duties as published in OFPP Policy Letter No. 05-01, Developing and Managing the Acquisition Workforce, April 15, 2005.

1.603-2 Selection.

In selecting contracting officers, the appointing official shall consider the complexity and dollar value of the acquisitions to be assigned and the candidate's experience, training, education, business acumen, judgment, character, and reputation. Examples of selection criteria include—

(a) Experience in Government contracting and administration, commercial purchasing, or related fields;

(b) Education or special training in business administration, law, accounting, engineering, or related fields;

(c) Knowledge of acquisition policies and procedures, including this and other applicable regulations;

(d) Specialized knowledge in the particular assigned field of contracting; and

(e) Satisfactory completion of acquisition training courses.

1.603-3 Appointment.

(a) Contracting officers shall be appointed in writing on an SF 1402, Certificate of Appointment, which shall state any limitations on the scope of authority to be exercised, other than limitations contained in applicable law or regulation. Appointing officials shall maintain files containing copies of all appointments that have not been terminated.

(b) Agency heads are encouraged to delegate authority for micro-purchase and simplified procedures described at FAR Subpart 12.7 to individuals who are employees of an executive agency or members of the Armed Forces of the United States who will be using the supplies or services being purchased. Individuals delegated this authority are not required to be appointed on an SF 1402, but shall be appointed in writing in accordance with agency procedures.

Subpart 12.7—Pilot Program for Contracting Directly with Independent Information Technology (IT) Consultants Though General Services Administration's (GSA) Online Talent Marketplace

12.701 – General

This subpart provides a pilot program for an expedited contracting authority for independent IT consultants facilitated by GSA's online talent marketplace of qualified independent IT consultants. An Independent Consultant is a self-employed independent contractor.

(a) This subpart authorizes, as a pilot program, use of simplified procedures for the acquisition of commercial services in amounts greater than the simplified acquisition threshold but not exceeding $750,000 including options, if the services sought are for direct contracting with an independent IT consultant using the GSA online talent marketplace. The purpose of this pilot program is to allow the federal government to award through a talent marketplace independent IT consultants in a simplified manner that maximizes efficiency and economy and minimizes burden and administrative costs for both the Government and industry.

(b) The policies and procedures in this subpart include the authority provided by Section 4202, P.L. 104-106 for acquiring certain commercial products or services exceeding the simplified acquisition threshold using the simplified acquisition procedures contained in FAR Subpart 13.5

(c) The period of performance for an independent IT consultant contract shall not exceed 12 months.

(d) For the period of this pilot, contracting activities must employ the simplified procedures authorized by this pilot program to the maximum extent practicable.

12.702 – Taking advantage of the independent IT consultant talent marketplace

(a) Work in the specialized discipline of IT services often requires unique expertise of state-of-the-art technologies best provided by independent consultants, outside experts able to bring a fresh perspective to programs or efforts.

(b) GSA will establish an IT Consultant Talent Marketplace with pre-qualified independent IT consultants to procure commercial services through an e-commerce portals for purposes of enhancing competition, expediting procurement, enabling market research, and ensuring reasonable pricing of commercial IT services. Independent IT consultants have been pre-qualified based on professional qualifications, pricing, simplified past performance references on contracts of similar work, and National Agency Check with Inquiries (NACI) background check. Consultants must be the sole employee of their companies to be included in the talent marketplace.

(c) To simplify purchases and avoid unnecessary costs and administrative burdens for agencies and contractors, contracting officers shall use the procedures in this subpart to acquire commercial IT consultant services. This subpart includes the authority to use simplified acquisition procedures (Part 13.5)..

(d) Independent IT Consultant services may be purchased with a government purchase card (GPC) as the transaction method for ordering online via the Talent Marketplace, with no additional FAR-based contract necessary. Using a GPC as the procurement transaction method would align with commercial practices, replace the paper-based contracting process, and reduce procurement lead times.

(e) Alternatively, independent IT consultants may be purchased with a simplified contract with the key flexibilities summarized below. Requirements for market research and competition are satisfied by the nature of the online talent marketplace; no additional documentation to that effect is required.

(1) Combined Public Announcement/Synopsis: Agencies shall publicly post on Federal Business Opportunities (FedBizOpps) through an open continuous announcement the types of services desired and the process to become pre-qualified to perform independent IT Services categories in the online talent marketplace. This combined open continuous announcement/synopsis will satisfy the synopsis requirements of FAR Subpart 5.2—Synopses of Proposed Contract Actions.

(2) Solicitations: The contracting officer may use a Request for Quote (RFQ) posted on the Talent Marketplace and to the maximum extent practicable include only those clauses that are:

- Required to implement provisions of law or executive orders of commercial items, e.g., FAR 52.212-5.
- Determined to be consistent with customary commercial practice, e.g., FAR 52.212-4.

(3) Response Requirements: Requirements are posted to the talent marketplace and independent consultant(s) express interest, to include as applicable professional qualifications, pricing, and past performance references.

- Basis of Award/Selection: Use FAR 12.602 and abbreviated criteria to evaluate factors including technical, price, and past performance. Technical capability may be evaluated by how well the consultant's resume meets the proposed government requirement instead of predetermined subfactors. A technical evaluation may include examination of professional qualifications necessary for performance. Simplified past performance evaluation may be made on any reasonable basis, such as references or quality of work as assessed by the talent marketplace's online rating system of consultant job

performance. Price reasonableness is based on multiple offers. Contracting officer will select the offer that is most advantageous to the government and briefly document the rationale for award.

- Award: Contracting Officer awards a two-page contract on a Standard Form (SF) 1449 contract that uses Block 27 to incorporate FAR 52.212-4, "Contract Terms and Conditions -- Commercial Items."

Subpart 13.3 -- Simplified Acquisition Methods

13.301 -- Governmentwide Commercial Purchase Card.

(a) Except as provided in 32.1108(b)(2), the Governmentwide commercial purchase card is authorized for use in making and/or paying for purchases of supplies, services, or construction. The Governmentwide commercial purchase card may be used by contracting officers and other individuals designated in accordance with 1.603-3. The card may be used only for purchases that are otherwise authorized by law or regulation.

(b) Agencies using the Governmentwide commercial purchase card shall establish procedures for use and control of the card that comply with the Treasury Financial Manual for Guidance of Departments and Agencies (TFM 4-4500) and that are consistent with the terms and conditions of the current GSA credit card contract. Agency procedures should not limit the use of the Governmentwide commercial purchase card to micro-purchases. Agency procedures should encourage use of the card in greater dollar amounts by contracting officers to place orders and to pay for purchases against contracts established under Part 8 procedures, when authorized; and to place orders and/or make payment under other contractual instruments, when agreed to by the contractor. See 32.1110(d) for instructions for use of the appropriate clause when payment under a written contract will be made through use of the card.

(c) The Governmentwide commercial purchase card may be used to --

(1) Make micro-purchases;

(2) Place a task or delivery order (if authorized in the basic contract, basic ordering agreement, or blanket purchase agreement); or

(3) Make payments, when the contractor agrees to accept payment by the card (but see 32.1108(b)(2)

(4) Make purchases and payments for the pilot program for contracting directly with independent information technology (IT) consultants though GSA's online talent marketplace (see FAR Subpart 12.7)

32.1108 – Payment by Governmentwide Commercial Purchase Card.

A Governmentwide commercial purchase card charge authorizes the third party (*e.g.*, financial institution) that issued the purchase card to make immediate payment to the contractor. The Government reimburses the third party at a later date for the third party's payment to the contractor.

(a) The clause at 52.232-36, Payment by Third Party, governs when a contractor submits a charge against the purchase card for contract payment. The clause provides that the contractor shall make such payment requests by a charge to a Government account with the third party at the time the payment clause(s) of the contract authorizes the contractor to submit a request for payment, and for the amount due in accordance with the terms of the contract. To the extent that such a payment would otherwise be approved, the charge against the purchase card should not be disputed when the charge is reported to the Government by the third party. To the extent that such payment would otherwise not have been approved, an authorized individual (see 1.603-3) shall take action to remove the charge, such as by disputing the charge with the third party or by requesting that the contractor credit the charge back to the Government under the contract.

(b)

(1) Written contracts to be paid by purchase card should include the clause at 52.232-36, Payment by Third Party, as prescribed by 32.1110(d). However, payment by a purchase card also may be made under a contract that does not contain the clause to the extent the contractor agrees to accept that method of payment.

(2)

(i) When it is contemplated that the Governmentwide commercial purchase card will be used as the method of payment, and the contract or order is above the micro-purchase threshold, contracting officers or individual designated in accordance with FAR 1.603-3(b) are required to verify (by looking in the System for Award Management (SAM)) whether the contractor has any delinquent debt subject to collection under the Treasury Offset Program (TOP) at contract award and order placement. Information on TOP is available at http://fms.treas.gov/debt/index.html .

(ii) The contracting officer or individual designated in accordance with FAR 1.603-3(b) shall not authorize the Governmentwide commercial purchase card as a method of payment during any period the SAM indicates that the contractor has delinquent debt subject to collection under the TOP. In such cases, payments under the contract shall be made in accordance with the clause at 52.232-33,

Payment by Electronic Funds Transfer— System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer—Other Than System for Award Management, as appropriate (see FAR 32.1110(d)).

(iii) Contracting officers or individual designated in accordance with FAR 1.603-3(b) shall not use the presence of the SAM debt flag indicator to exclude a contractor from receipt of the contract award or issuance or placement of an order.

(iv) The contracting officer or individual designated in accordance with FAR 1.603-3(b) may take steps to authorize payment by Governmentwide commercial purchase card when a contractor alerts the contracting officer that the SAM debt flag indicator has been changed to no longer show a delinquent debt.

(c) The clause at 52.232-36, Payment by Third Party, requires that the contract--

(1) Identify the third party and the particular purchase card to be used; and

(2) Not include the purchase card account number. The purchase card account number should be provided separately to the contractor.

32.1110 Solicitation provision and contract clauses.

(a) The contracting officer shall insert the clause at—

(1) 52.232-33, Payment by Electronic Funds Transfer—System for Award Management, in solicitations and contracts that include the provision at 52.204-7 or an agency clause that requires a contractor to be registered in the System for Award Management (SAM) database and maintain registration until final payment, unless—

(i) Payment will be made through a third party arrangement (see 13.301 and paragraph (d) of this section); or

(ii) An exception listed in 32.1103(a) through (i) applies.

(2)(i) 52.232-34, Payment by Electronic Funds Transfer-Other than System for Award Management, in solicitations and contracts that require EFT as the method for payment but do not include the provision at 52.204-7, System for Award Management, or a similar agency clause that requires the contractor to be registered in the SAM database.

(ii)(A) If permitted by agency procedures, the contracting officer may insert in paragraph (b)(1) of the clause, a particular time after award, such as a fixed number of days, or event such as the submission of the first request for payment.

(B) If no agency procedures are prescribed, the time period inserted in paragraph (b)(1) of the clause shall be "no later than 15 days prior to submission of the first request for payment."

(b) If the head of the agency has authorized, in accordance with 32.1106, to use a nondomestic EFT mechanism, the contracting officer shall insert in solicitations and contracts a clause substantially the same as 52.232-33 or 52.232-34 that clearly addresses the nondomestic EFT mechanism.

(c) If EFT information is to be submitted to other than the payment office in accordance with agency procedures, the contracting officer shall insert in solicitations and contracts the clause at 52.232-35, Designation of Office for Government Receipt of Electronic Funds Transfer Information, or a clause substantially the same as 52.232-35 that clearly informs the contractor where to send the EFT information.

(d) If payment under a written contract will be made by a charge to a Government account with a third party such as a Governmentwide commercial purchase card, then the contracting officer shall insert the clause at 52.232-36, Payment by Third Party, in solicitations and contracts. Payment by a purchase card may also be made under a contract that does not contain the clause at 52.232-36, to the extent the contractor agrees to accept that method of payment. When the clause at 52.232-36 is included in a solicitation or contract, the contracting officer shall also insert the clause at 52.232-33, Payment by Electronic Funds Transfer—System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer—Other Than System for Award Management, as appropriate.

(e) If the contract or agreement provides for the use of delivery orders, and provides that the ordering office designate the method of payment for individual orders, the contracting officer shall insert, in the solicitation and contract or agreement, the clause at 52.232-37, Multiple Payment Arrangements, and, to the extent they are applicable, the clauses at—

(1) 52.232-33, Payment by Electronic Funds Transfer—System for Award Management;

(2) 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management; and

(3) 52.232-36, Payment by Third Party.

(f) If more than one disbursing office will make payment under a contract or agreement, the contracting officer, or ordering office (if the contract provides for choices between EFT clauses on individual orders or classes of orders), shall include or identify the EFT clause appropriate for each office and shall identify the applicability by disbursing office and line item.

(g) If the solicitation contains the clause at 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management, and an offeror is required to submit EFT information prior to award—

(1) The contracting officer shall insert in the solicitation the provision at 52.232-38, Submission of Electronic Funds Transfer Information with Offer, or a provision substantially the same; and

(2) For sealed bid solicitations, the contracting officer shall amend 52.232-38 to ensure that a bidder's EFT information—

(i) Is not a part of the bid to be opened at the public opening; and

(ii) May not be released to members of the general public who request a copy of the bid.



DoD requires additional flexibilities with appropriated funds to allow application of agile management principles to the acquisition cycle and to meet warfighter missions more effectively.

RECOMMENDATIONS

Rec. 46: Empower the acquisition community by delegating below threshold reprogramming decision authority to portfolio acquisition executives.

Rec. 47: Restore reprogramming dollar thresholds to match their previous levels relative to inflation and the DoD budget.

Rec. 48: Increase to 50 percent the *lesser of 20 percent* restriction that creates artificially low reprogramming thresholds for smaller programs.

Recommendations continued on following page.

RECOMMENDATIONS

Rec. 49: Provide increased flexibility to the time periods within which contract obligations are permitted to occur.

Rec. 50: Enact regular appropriations bills on time.

Rec. 51: Mitigate the negative effect of continuing resolutions by allowing congressional regular appropriations to remain available for a standardized duration from date of enactment.

Rec. 52: Permit the initiation of all new starts, provided Congress has appropriated sufficient funding.

Rec. 53: Permit the initiation of all production rate increases, provided Congress has appropriated sufficient funding.

Rec. 54: Permit the initiation of multiyear procurements under a CR.

Rec. 55: Raise the Prompt Payment Act threshold.

Rec. 56: Use authority in Section 1077 of the FY 2018 NDAA to establish a revolving fund for information technology modernization projects and explore the feasibility of using revolving funds for other money-saving investments.

Rec. 57: Modify fiscal law to extend the duration of when funds cancel from 5 years to 8 years in expired status to align program acquisitions with funding periods and prevent putting current funds at risk and to support meeting appropriation intent.

Rec. 58: Address the issue of over-age contracts through (a) establishing an end-to-end, integrated, streamlined process, (b) codifying DCMA's Quick Close Out class deviation in the DFARS, and (c) extending DCMA's Low Risk Quick Close Out initiative by 2 years.

INTRODUCTION

The annual passing of the NDAA inevitably elicits numerous headlines. When the FY 2019 NDAA was signed on September 28, 2018, it was praised for "funding our military in full and on time."[1] For FY 2019, *full funding* resulted in a defense budget of $674 billion. *On time* allowed DoD to begin FY 2019 with an enacted NDAA rather than operating under a continuing resolution. The FY 2019 defense budget includes increases to service member pay, an increase in military end strength forces, and the requested funds for materiel procurement.[2]

These top-level defense budget topics are accessible to lawmakers and the public. They also often belie the incredibly complex task of managing the defense budget. Within the defense acquisition sphere, the budget falls within the Planning, Programming, Budgeting, and Execution (PPBE) leg of the acquisition system. Like the other legs of the defense acquisition system, PPBE's processes and procedures must be scrutinized and reformed from time to time. In fact, the 2018 National Defense Strategy delineates reform as top-three most-important line of effort in maintaining "decisive and sustained U.S. military advantages."[3] In its FY 2019 budget request to Congress, DoD echoed the imperative to better manage its resources to better execute the National Defense Strategy:

> *The Department's management structure and processes are not written in stone; they are a means to an end– empowering the warfighter with the knowledge, equipment and support systems to fight and win.*[4]

This section contains recommendations intended to reduce inefficiency and dysfunction in the defense acquisition system's funding process. These recommendations support the core objective of allocating acquisition resources more effectively. Overarching goals of these recommendations include empowering portfolio managers to reallocate resources between programs as needed; flowing down decision authority to the lowest possible levels; eliminating or mitigating some of the perverse incentives that exist in fiscal law; and mitigating the harmful effects of late funding on DoD acquisition programs.

Nothing in these recommendation is intended to reduce the ability of congressional committees to perform their constitutional oversight functions. The extension of the time between expiration of funds and their cancellation is specifically limited both in terms of length of time and quantum. The acquisition of goods and services is inextricably tied to both budgeting of funds by the Executive Branch and Congress's appropriation of those funds. Delivering warfighter capability is dependent on integration of the budgeting process and the authorization and appropriation of funds. The Section 809 Panel is aware that some may look at these proposals as a masked attempt at recreating the M accounts of yesteryear, but nothing could be further from the truth. Rather, these proposals recognize that the availability of new-start funding from fiscal year to fiscal year is not reliable. Current rules limit the

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[1] Rep. Mac Thornberry, as quoted in "Trump Signs Defense Spending Plan, With One More Swipe at Democrats," Leo Shane III, *Military Times,* September 28, 2018, accessed November 7, 2018, https://www.militarytimes.com/news/your-military/2018/09/28/trump-signs-spending-plan-avoiding-shutdown/.
[2] Ibid.
[3] DoD, *Summary of the 2018 National Defense Strategy,* 4, accessed November 7, 2018, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.
[4] OUSD (Comptroller), *Defense Budget Overview: U.S. DoD FY 2019 Budget Request,* February 2018, 2-7, accessed November 7, 2018, https://dod.defense.gov/Portals/1/Documents/pubs/FY2019-Budget-Request-Overview-Book.pdf.

flexibility of DoD's acquisition workforce in dealing with the realities of the marketplace such that near-peer competitors and nonstate actors have a decided innovation advantage. In a very real sense the U.S. Military Services must move to a war footing to maintain technological dominance—competitors already have.

This section does not include specific reforms to the planning, programming, or budget formulation processes. Other recommendations in this volume, however, address these issues indirectly. For example, Recommendations 36 and 37 on portfolio management represent a move toward empowering officials to exercise authority over not only program management and contracting, but also requirements development and budgeting. When the same people exercise authority over both budgeting and program management, it will allow for a more realistic assessment of future program costs. In turn, this change will lead to a more accurate budget formulation process.

During its research, the Section 809 Panel has consulted with cost estimating experts from the Institute for Defense Analyses (IDA) and other organizations. Although these consultations have not resulted in a formal recommendation, cost estimating process improvement represents an avenue for future research and further improvement of the defense acquisition budgeting process. These research efforts should continue.

The remainder of this section addresses a number of recommendations associated with managing the defense budget. Recommendations 46 through 48 address flowing down reprogramming decision authority to the lowest possible levels. This section also addresses increasing reprogramming thresholds to allow for a broader trade space within portfolios. The current process by which DoD moves funding from one program to another is too time-consuming and complicated. It involves too many levels of approval, and it does not allow for delegation of decision authority to the mid- and lower-levels of the acquisition system. These lower levels of authority may, in many cases, be where people best understand the tradeoffs being made.

Several types of annual and intrayear deadlines are applied to different tiers of defense acquisition spending. These include congressional appropriations account deadlines, DoD Comptroller obligation rate targets, military department obligation rate targets, and working-level targets. These constraints can lead to several negative outcomes, which are described in detail in the discussion of Recommendation 49, which moderately increases flexibility of the time within which short-term-funded contract obligations are permitted to occur.

The stopgap defense funding provided by continuing resolutions is a poor substitute for regular Congressional appropriations. Short-term funding reduces stability and undermines DoD's ability to budget and execute its strategic missions. If enacted, Recommendation 50 would require Congress to enact regular defense appropriations on time each year. Congress's enactment of on-time defense appropriations in FY 2019 was a welcome reversal of a chronic problem. If this recent improvement does not prove to be a lasting trend, however, Recommendations 51 through 54 offer other measures which may provide enough flexibility for DoD to effectively fund its required missions, to include allowing for acquisition program changes even while DoD is temporarily funded and allowing a full period of obligation authority regardless of appropriations law enactment date. As laid out in this report, some of the technical details for these recommendations may raise concerns about data

management and auditability. These recommendations may be improved through further consultation with DoD and military department comptrollers.

The Prompt Payment Act requires payment of interest penalties to contract vendors for any amount more than $1. This threshold has been unchanged since the 1980s, and the costs of administrative processes often exceed the payment amounts. Recommendation 55 increases the threshold to $15.

Federal agencies and contractors have expressed frustration at government failures to fund projects that promise to make agencies more efficient or more effective in the long term. These projects may include facility improvements, IT system upgrades, and energy efficiency improvements. In some cases, private contractors offer to finance such projects on behalf of federal agencies, only to be told that this is impossible due to budgetary scoring rules laid out in Office of Management and Budget (OMB) Circular A-11. Recommendation 56 establishes a revolving fund under the IT modernization provisions enacted as part of the FY 2018 NDAA. The new fund should be used as a pilot program to gauge the feasibility of loosening financing rules for projects such as aircraft re-engining. DoD should conduct studies on public–private funding in other countries and at state and local levels, and the exceptions that have been granted to OMB scoring rules to determine what would need to be done to increase opportunities for equipment recapitalization.

In the 1990s, Congress enacted a 5-year time limit on disbursement of funding once obligated on a contract. At that time, neither Congress nor DoD recognized how difficult it would be to close out contracts within the required 5-year period. Because of close-out delays, vendors must in some cases be paid out of appropriations from different fiscal years, undermining the original congressionally-intended purpose of the funding. Recommendation 57 lengthens that 5-year deadline to 8 years, to ensure that funds can be used for the original congressional intent. Recommendation 58 addresses the issue of over-age contracts.

RECOMMENDATIONS 46 THROUGH 48 SHARE THE COMMON THEME: REPROGRAMMING

Recommendation 46: Empower the acquisition community by delegating below threshold reprogramming decision authority to portfolio acquisition executives.

Problem

The current reprogramming process in DoD is too time-consuming and complicated. It involves too many levels of approval, and it does not allow for delegation of decision authority to the mid- and lower-levels of the acquisition system. These lower levels of authority may, in some cases, be where people best understand the tradeoffs being made.

Background

Reprogramming is the act of reallocating congressionally appropriated funds for a purpose other than that originally intended. It is considered a vital part of DoD's ability to maintain enough flexibility to counter rapidly changing threats.

DoD uses reprogramming to increase or decrease a program's funding after an appropriation from Congress is enacted into law. Reprogramming offers the advantage of not requiring new appropriations from Congress. Reprogramming is budget neutral: The requests for increases for higher-priority programs are matched with equivalent decreases in lower-priority programs.

Role of Congress

Congress explicitly acknowledges the importance of reprogramming in giving the military the ability to respond to unpredictability in the battlefield. Each year when it enacts defense appropriations laws, Congress approves a multibillion-dollar general transfer authority (GTA) permitting DoD to move funds across appropriations accounts and their subdivisions. GTA provisions typically include requirements that transfers must be considered "necessary in the national interest" and "based on unforeseen military requirements."[5]

The congressional defense committees agree to thresholds for each appropriations account, below which DoD may, in some cases, reprogram funding without seeking prior congressional approval. On the basis of these thresholds, reprogramming actions may be divided into *below-threshold reprogramming* (BTR) and *above-threshold reprogramming* (ATR).

At the beginning of each fiscal year, the DoD Comptroller is responsible for compiling a comprehensive statement of the base amounts on which the coming fiscal year's reprogramming actions are based. This annual statement goes into detail at the level of individual budget line items.[6]

If a reprogramming action exceeds BTR thresholds, initiates a new start or termination, or affects a program Congress has designated as an item of special interest, it may not use BTRs. In these cases, DoD must submit a prior approval (PA) request or a Congressional Notification Letter request to the four congressional defense committees.[7] Internal reprogramming (IR) may be used in cases where reprogramming actions are "required to execute funds properly in accordance with congressional intent," are deemed "necessary in the national interest," represent the same "purpose for which the funds were originally appropriated," and have not been previously rejected by one of the congressional defense committees.[8]

Because IRs do not require PA from as many stakeholders, they are considered by many to be more efficient than PAs.[9] DoD engages in relatively few IR actions each year because IRs must be used for the same purpose as originally appropriated, which is highly dependent on regulatory definitions of what constitutes a given budget line item's purpose. For example, DoD's FY 2018 reprogramming documentation showed 24 internal reprogrammings. Some of these consisted of multiple actions, but most addressed individual subcategories of DoD spending. By contrast, DoD engages in hundreds of

[5] See, for example, Section 8005 of Division C, Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018).
[6] "Budget Execution: DD 1414 Base for Reprogramming Actions," Under Secretary of Defense (Comptroller), accessed November 2, 2018, https://comptroller.defense.gov/Budget-Execution/.
[7] See language in DD 1415-1 request forms for "Implemented Reprogramming Actions" in FY 2018, Under Secretary of Defense (Comptroller) website, accessed August 6, 2018, https://comptroller.defense.gov/Budget-Execution/ReprogrammingFY2018.
[8] This list of conditions represents the standard language in FY 2018 DD 1415-3 internal reprogramming notification forms. See, for example, DoD Comptroller, *May 2018 Internal Reprogramming Request,* accessed August 6, 2018, https://comptroller.defense.gov/Portals/45/Documents/execution/reprogramming/fy2018/ir1415s/18-13_IR_May_2018_Request.pdf.
[9] Former DoD Comptroller and former congressional staffers, discussions with Section 809 Panel, September 2018.

BTR reprogrammings each year.[10] Anecdotally, part of the reason for this pattern is the long wait time to gain approval for PAs and IRs at the congressional and Office of the Secretary of Defense (OSD) levels, respectively.

Types of Reprogramming Used in Defense Acquisition[11]

- *Prior Approvals* (PAs) are reprogramming actions that meet one of several conditions. PAs are required for reprogramming actions in cases for which procurement quantities are increased, new starts are initiated, programs are terminated, congressional special interest items are affected, GTA may be used, or BTR thresholds are exceeded. PAs for specific requirements are submitted monthly. A large-scale omnibus PA reprogramming action is submitted prior to June 30 of each year.[12] PAs must be preapproved by the DoD Comptroller, OMB, and all four congressional defense committees.
- *Internal Reprogrammings* (IRs) are reprogramming actions that do not change the congressional intent of a budget line item. They may in some cases, however, move funding across appropriations accounts and therefore require the use of GTA. IRs must be preapproved by DoD, but only require notification (not PA) of the congressional committees.
- *Below Threshold Reprogramming* (BTR) are reprogramming actions that fall below an account-specific amount and do not move funds across appropriations accounts. They may not be used in cases where congressional intent would be altered, congressional special interest items would be affected, or line items would be terminated or initiated as new starts. BTRs may be approved at the Military Service level. Congress is notified of all BTRs on a quarterly basis.[13]
- *Congressional Notification Letters* are reprogramming actions that would not rise above BTR thresholds or move funds across appropriations accounts, but would result in the new start or termination of a line item. They are submitted by Defense Agencies in coordination with the DoD Comptroller, and they must be preapproved by all four congressional defense committees.
- *Letter Transfer* (LTRs) are used to process funding transfers that are specifically authorized in legislation. Commonly used types of letter transfer authorities include Environmental Restoration, Drug Interdiction, and Defense Working Capital Funds.
- *Above Threshold Reprogramming* (ATR) is not an official category of reprogramming as defined by the DoD Comptroller. It is, however, a widely used term within the defense acquisition community. The term ATR is commonly used as a catch-all description for reprogramming actions other than BTRs that may not be approved by any authority below the DoD Comptroller. PAs and IRs, for instance, are generally considered subcategories of ATRs.

BTRs may occur when funding does not move from one appropriations account to another. BTRs may be approved at the Military Service level, but the congressional committees must be notified. At the end of each annual quarter, the Military Services and OSD provide detailed reports to Congress of all BTR actions. These reports are made available through a website hosted by the DoD Comptroller. Because of the relatively streamlined process allowing for approval at the Military Service level, acquisition and financial management personnel are able to complete BTR actions on a much shorter

[10] "Budget Execution: Implemented Reprogramming Actions, FY 2018," Under Secretary of Defense (Comptroller), accessed September 14, 2018, https://comptroller.defense.gov/Budget-Execution/ReprogrammingFY2018.
[11] Information summarized from DoD Comptroller, "Budget Execution Flexibility Tutorial," https://comptroller.defense.gov/Portals/45/Documents/execution/Budget_Execution_Tutorial.pptx, accessed August 21, 2018.
[12] See Reprogramming Actions Requiring Congressional Approval, FMR Volume 3, Chapter 6, Section 060401.
[13] See "Budget Execution: 1416 Quarterly Reports," Under Secretary of Defense (Comptroller), accessed August 21, 2018, https://comptroller.defense.gov/Budget-Execution/1416QrtlyRptsfy2018.

timeframe.[14] For example, in the third quarter of FY 2018, the Air Force reported 128 BTR actions in its unclassified Research, Development, Test and Evaluation (RDT&E) accounts alone.

The congressional defense committees set the dollar thresholds that define whether a given reprogramming action is a BTR or ATR. These thresholds vary according to the type of appropriation. The four major types of appropriation for reprogramming are Procurement, RDT&E, Operations and Maintenance (O&M), and Military Personnel. Although all reprogrammings are reported to Congress, PA reprogramming actions require explicit, unanimous approval from the four congressional defense committees before the funds can be reprogrammed. In practice, the reprogramming requests are approved by the chair and ranking members of each defense committee raising the number of affirmative responses required for approval to eight. Individual members of their committees are generally notified of a reprogramming and can raise objections to the chair or ranking member.

Discussion

The pace of reprogramming has become so slow that it routinely is not completed until late in the fiscal year. The slowness is due, in part, to the lack of a single, unified chain of control through which ATR requests may be approved. Individual ATRs can require approval from many different functional communities including comptrollers, fiscal lawyers, the formal acquisition system chain of command, and other offices. PA reprogrammings must also receive approval from all four of the congressional defense committees. Within the defense acquisition community, the need to seek approval from multiple entities at the top of the hierarchy is commonly referred to as the *mother may I* approval process.[15]

Complex Networks of Stakeholders

Many different stakeholders may need to provide approvals to successfully navigate an ATR request. These stakeholders may include the following:

- Program manager (PM)
- Military Service comptroller appropriation manager
- Military Service budget manager
- Military Service budget director
- Military Service comptroller
- Military Service vice chief of staff
- Military Service secretary
- DoD Directorate for Freedom of Information and Security Review
- DoD Comptroller budget directorates
- DoD Comptroller
- Deputy Secretary of Defense
- Office of Management and Budget[16]

[14] Based on Section 809 Panel staff analysis of "Budget Execution: 1416 Quarterly Reports," Under Secretary of Defense (Comptroller), accessed September 14, 2018, https://comptroller.defense.gov/Budget-Execution/1416QrtlyRptsfy2018.
[15] DoD personnel, interviews with Section 809 Panel, throughout 2017.
[16] Pentagon staff, interviews with Section 809 Panel, and panel research, 2017.

Once required signatures have been obtained, a PA reprogramming request must navigate all four congressional defense committees. Even if three committees provide a same-day response to proceed with the reprogramming, timing of the approval will depend solely on response time for the fourth committee.

Budget Process Impediments to Solving Engineering Problems

Under the current budget process, the Military Services generally begin compiling weapon system budgets more than 2 years in advance of funding availability. For example, the FY 2017 budget was formulated at the Military Service level throughout early 2015. In July 2015, detailed proposals were submitted to the OSD level and between July and November a cycle of review processes occurred. In September 2015 the Budget Estimate Submissions were presented to OSD. In November 2015, program decision memoranda were presented to OSD. The budget was finalized in December 2015 and presented from OMB to Congress as part of the President's budget request in February 2016. The appropriations committees in both the House and Senate voted to approve funding by the end of May 2016. Congress enacted the regular defense appropriations bill in May 2017 as part of the omnibus funding bill.[17]

Between the budget compilation and appropriations enactment, a weapon system may encounter technical difficulty that requires additional engineering development or possibly additional test and evaluation periods. A common-sense solution to such a scenario would be delaying procurement and increasing development and testing to ensure technical maturity of the weapon system. Such a solution could also potentially avoid costly rework later in the program's lifecycle. Current rules on reprogramming, however, make this prospect unnecessarily difficult.

For the Military Service to move funding from production of a weapon system (Procurement funds) to development of a weapon system (RDT&E funds), it must obtain approval from the Undersecretary of Defense (Comptroller) and unanimous approval from the four congressional defense committees.[18] The reprogramming process can take several months before approval or disapproval is known. Lengthy delays sharply reduce the efficacy of reprogramming.

Reprogramming is intended as a source of much-needed funding flexibility due to the size and complexity of the defense budget. Since at least the 1980s, the process has been viewed as cumbersome by most of those involved.[19]

Prior Approval Process

The PA reprogramming approval process reportedly takes about 75 days from the perspective of the DoD Comptroller. An average of about 75 days elapses from the point at which the DoD Comptroller begins compiling an ATR request to the point at which the request is approved by all four

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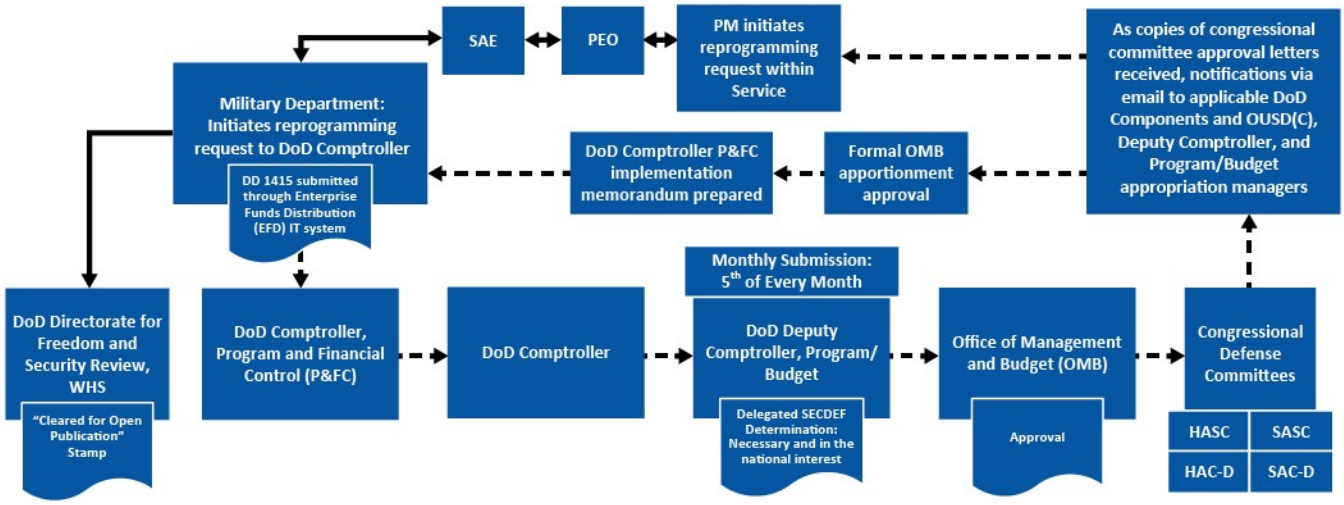
[17] Internal DoD timeline from Brian Melton, *POM Development,* presentation at DAU, March 29, 2017, 17, accessed November 2, 2018, https://www.dau.mil/Lists/Events/Attachments/8/03-29-2017%20LnL-POM%20Development_B.%20Melton.pdf. Congressional timeline from "Appropriations for Fiscal Year 2017" committee approval records available at www.congress.gov.

[18] The four congressional defense committees are House Committee on Armed Services, Senate Committee on Armed Services, House Appropriations Committee (Defense Subcommittee), and Senate Appropriations Committee (Defense Subcommittee).

[19] GAO, *Budget Reprogramming: Department of Defense Process for Reprogramming Funds, GAO/NSIAD-86-164BR,* July 1986, 3, accessed June 30, 2017, http://www.gao.gov/assets/80/75702.pdf.

congressional committees. From the perspective of a PM, the process may be much longer due to the additional tiers of control that exist between DoD and the Military Services, as well as within the Military Services.[20] The current reprogramming process is illustrated as a process map shown in Figure 4-1.

Figure 4-1. Current PA Reprogramming Process[21]



These 75 days do not include any of the decision-making processes that must occur before the request reaches the DoD Comptroller's office. These processes occur at the levels of the Military Service, the program executive officer (PEO), and the PM— the offices that have the most real-time awareness of the proposed acquisitions in question.

The initial process of developing a PA request within a Military Service can take a month or more. After all four committees have approved the request, funds are usually released at the PM level within a week or two. From a PM's perspective, the total time required to complete an ATR reprogramming action "ranges from 4 to 6 months."[22]

Case Study:
Reprogramming Timeline from a PM's Perspective[23]

In late 2017, the Army required a PA reprogramming of funds for the procurement of electronic support equipment. Army program personnel began working on the request in December 2017, and it was sent to the congressional committees at the end of January 2018. The fourth congressional committee approved the request at the end of March 2018, and funds were released at the PM level about a week later in early April. In total, the process took roughly 4 months. One senior official involved in the approval described it as a fairly fast ATR.

[20] Based on information from OSD Comptroller, provided to Section 809 Panel staff, March 2017.
[21] Based on Section 809 Panel interviews with DoD Comptroller officials and Panel staff analysis of DoD 7000.14-R Financial Management Regulation, Volume 3, Chapter 6: Reprogramming of DoD Appropriated Funds, updated September 2015.
[22] Military Service acquisition expert, emails to Section 809 Panel, September 2018.
[23] Army acquisition official, emails to Section 809 Panel, September 2018.

Nondefense Reprogramming

Other federal agencies also reprogram funding; however, the procedures they use and the approval processes from their appropriations subcommittees differ substantially from those in DoD.[24] The Government Accountability Office (GAO) describes DoD's procedures for reprogramming as "detailed and sophisticated" compared to other federal agencies.[25]

Conclusions

Reprogramming is intended as a way for DoD to adjust funding within fiscal years outside of the normal budget process. Decreased utility of reprogramming as a management and budgetary tool negatively affects the defense acquisition system.

The simplest way to mitigate these problems is to flow more reprogramming authority down to the lower levels of the acquisition system. DoD should allow for more flexibility in its definitions of appropriations lifecycle categories. In other words, definitions should be clarified to encourage program offices to focus more on whether capabilities are being delivered, and less on coordinating the timing of the funding for a system's lifecycle phases.

Allowing portfolio managers to move funds across appropriations would add complexity to the reprogramming process and potentially require amendments to fiscal law. If portfolio managers were able to move funds from RDT&E accounts to Procurement accounts without PA, it would substantially reduce the congressional committees' oversight and control capabilities.

For these reasons, portfolio managers, or their relevant milestone decision authorities, should be given decision authority over BTR actions that occur within the same portfolio and appropriations account. Decision authority over BTRs crossing portfolio lines should be held by the relevant comptrollers.

Modifying the approval processes for BTRs would allow for more timely decision making. Rules on BTR approval could be modified to allow Military Service PEOs to make trades within their portfolios, rather than waiting on the Military Service leadership for approval. This improvement could be accompanied by changes in the existing BTR thresholds, which would further flow down authority and allow PEOs to make decisions concerning a broader set of transactions.

A graphical comparison of the current and proposed decision-making structure for the PA and BTR processes is presented in Figure 4-2 and Figure 4-3.

[24] GAO, *Budget Reprogramming: Department of Defense Process for Reprogramming Funds, GAO/NSIAD-86-164BR,* July 1986, 4 and 24, accessed June 30, 2017, http://www.gao.gov/assets/80/75702.pdf.
[25] GAO, *Principles of Federal Appropriations Law: Chapter 2, The Legal Framework, Fourth Edition, 2016 Revision, GAO 16-464SP,* 2-47, accessed August 8, 2017, http://www.gao.gov/assets/680/675709.pdf.

Figure 4-2. Current Decision Authority Flowchart for PA Reprogramming Actions

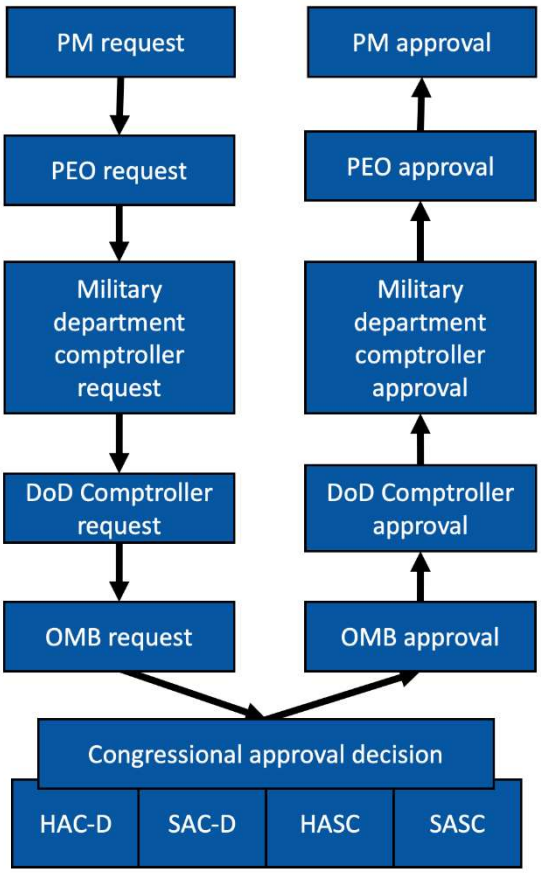
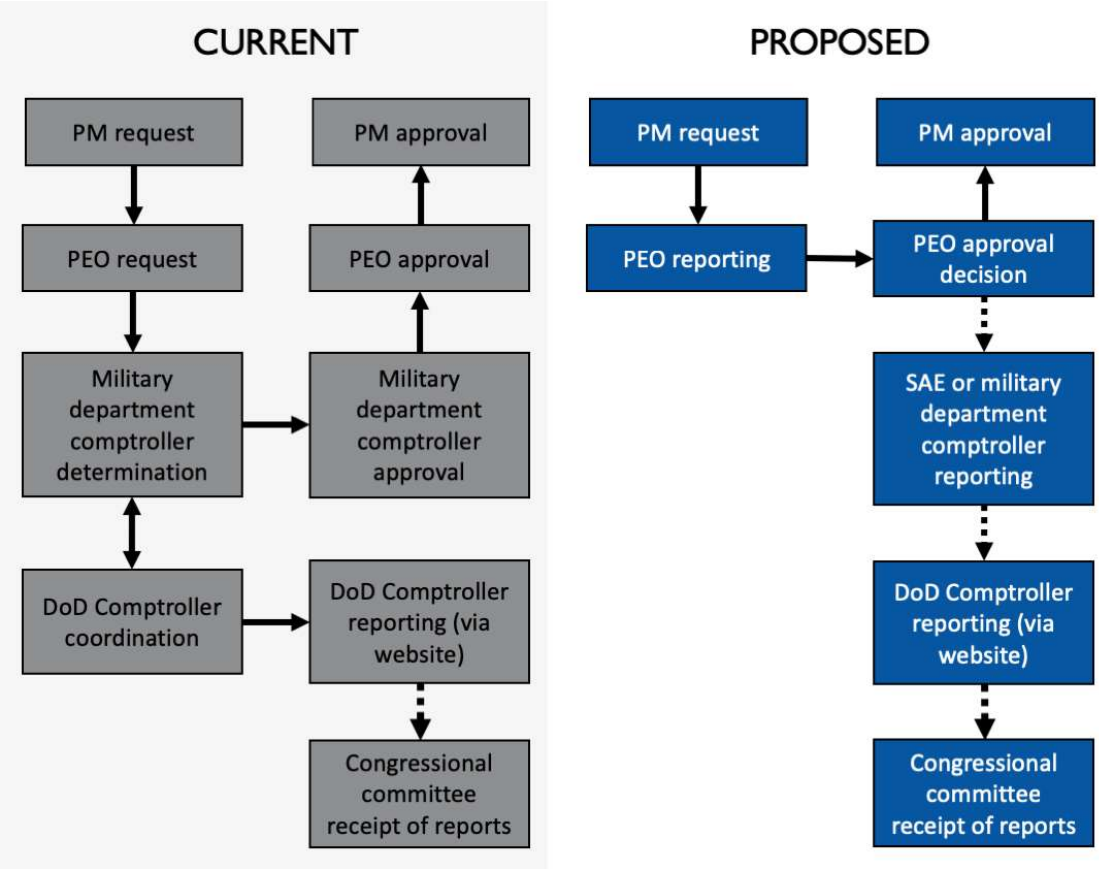


Figure 4-3. Current and Proposed Decision Authority Flowchart for BTR



Placing BTR decision authority in the hands of portfolio managers would require a certain degree of trust on the part of OSD, the Military Services and Defense Agencies, and the congressional committees. Stakeholders would also need to show trust to modify Financial Management Regulation (FMR) definitions to allow for greater flexibility when determining which appropriation must be used to address a given requirement. To build this trust, portfolio managers would be required to comply with Service and Defense Agency comptroller instructions.

Implementation

Recommendations on reprogramming decision authority in this section refer to portfolio acquisition executives (PAEs). If the recommendations described in Section 2 are adopted, PAEs would be a new role in DoD with increased decision authority over requirements development, budgeting, and program execution. Should PAEs not be established within DoD, an alternative role in which to locate reprogramming decision authority would be the currently existing PEOs.

Legislative Branch

- Obtain concurrence from the congressional defense committees to modify the BTR process to allow for more timely decision making by placing decision authority in the hands of portfolio managers. This change would primarily fall within the jurisdiction of the appropriations committees. It would likely be implemented via the conference report joint explanatory statement of a regular defense appropriations law.

Executive Branch

- Flow down BTR authority to portfolio executives.
  - Modify the FMR to allow for portfolio managers (the portfolio acquisition executive, should recommendations in Section 2 be adopted) to make decisions on approval of BTR actions, with the concurrence of the relevant Service comptroller and DoD Comptroller, for cases in which a viable funding offset has been identified within the same portfolio.
  - As is currently the case, continue to report all BTR actions to Congress quarterly via DoD Comptroller budget execution documentation.
- Facilitate the ability of program and portfolio managers to obligate funding by clarifying appropriations account definitions in the FMR.
  - Issue clear guidance on FMR interpretation to maximize the extent to which program and portfolio managers can use available funding for approved requirements. Provide guidance on what types of funding they should request in advance of budget requests and what flexibilities are available to them.
- Reduce the timetables involved in BTR requests.
  - In cases where a viable funding offset has been identified within the same portfolio, the process should take no longer than a few weeks from time of request to time of approval or rejection.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 47: Restore reprogramming dollar thresholds to match their previous levels relative to inflation and the DoD budget.

Problem

The reprogramming flexibility available to DoD has eroded over the course of multiple decades. The current PA reprogramming dollar thresholds have kept pace with neither inflation nor the defense budget.

Background

The dollar thresholds below which DoD may engage in BTRs are set by the congressional defense committees. BTR thresholds have existed since at least the 1960s, and throughout recent decades they have been formally published in DoD's Financial Management Regulation.

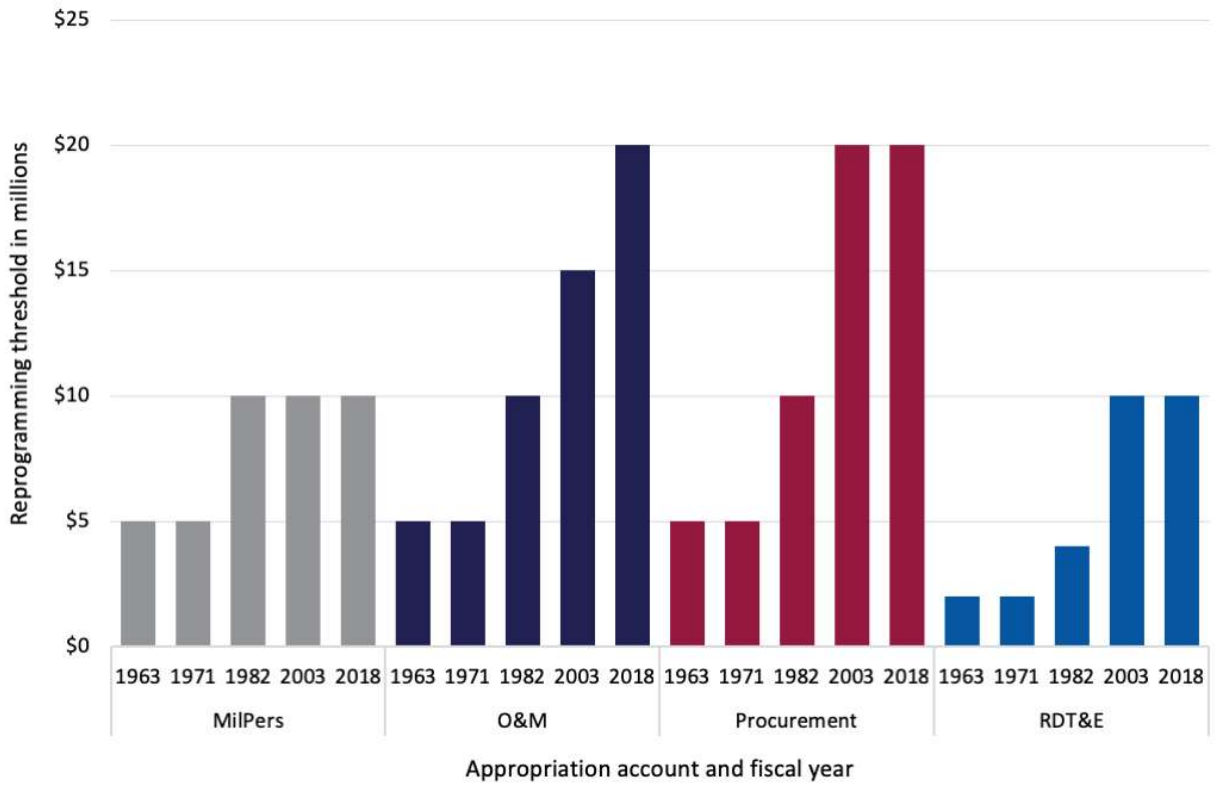
Current Reprogramming Thresholds

As of FY 2019, reprogramming dollar thresholds for DoD appropriation accounts included the following:[26]

- Military personnel $10 million
- O&M $15 million
- Procurement $20 million
- RDT&E $10 million

DoD's flexibility for reprogramming has eroded over time as the current reprogramming dollar threshold limits have not kept pace with inflation or with defense budget growth.

Figure 4-4. Reprogramming Dollar Thresholds, Not Adjusted For Inflation



Thresholds for FY 1963 and FY 1971 from versions of DoDI 7250.10 dated March 5, 1963 and April 1, 1971, provided by DoD Historical Office. Thresholds for FY 1982 from mid-1980s Air Force research.[27] Thresholds for FY 2003 and FY 2018 from DoD Comptroller documentation.[28]

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[26] H.Rpt. 115-952, *Conference Report to Accompany H.R. 6157* (see Reprogramming Guidance section of Joint Explanatory Statement), September 13, 2018, accessed September 21, 2018, https://www.congress.gov/115/crpt/hrpt952/CRPT-115hrpt952.pdf.
[27] William Alton Hill, Jr., *Fiscal Law, Incremental Funding, and Conditional Contracts,* January 22, 1985, 201, accessed October 2, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/a161081.pdf.
[28] For threshold changes in FY 2003, see DoD Comptroller Memorandum, *Below Threshold Reprogramming Authority Policy,* May 15, 2003, accessed June 7, 2018,

In purely inflation-adjusted terms, reprogramming dollar thresholds have historically been about double their current levels (see Figure 4-5).

Figure 4-5. Reprogramming Dollar Thresholds in Inflation-Adjusted U.S. Dollars

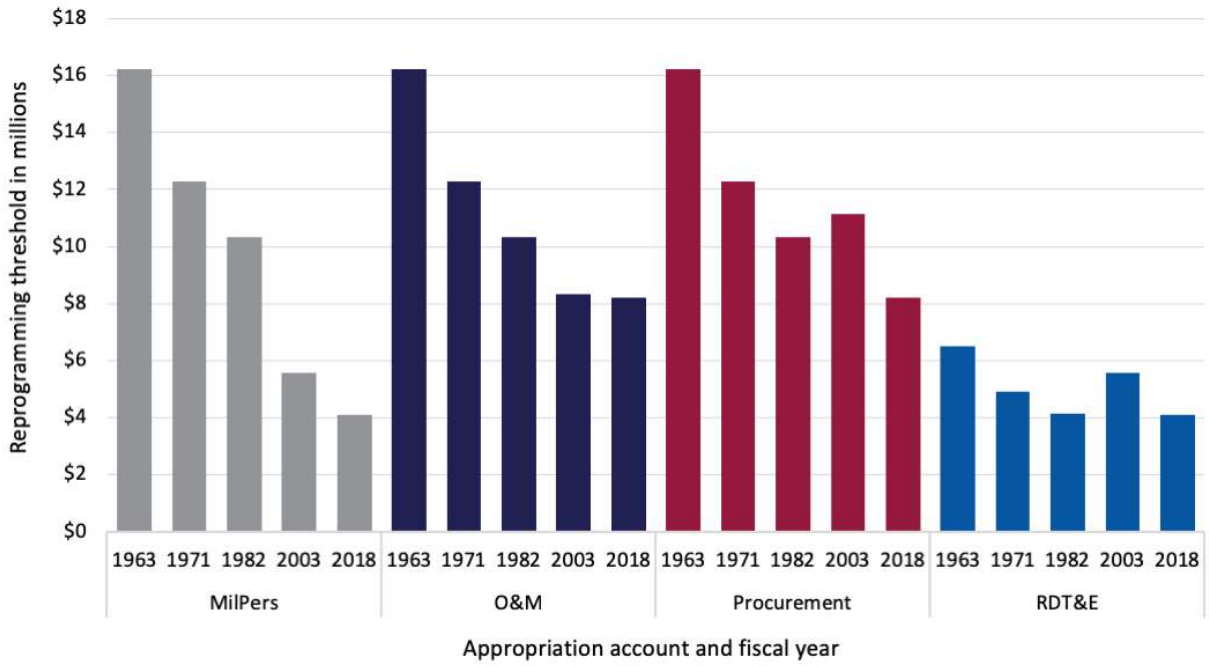


Figure is in adjusted 1983 U.S. Dollars. Thresholds for FY 1963 and FY 1971 from versions of DoDI 7250.10 dated March 5, 1963 and April 1, 1971, provided by DoD Historical Office. Thresholds for FY 1982 from mid-1980s Air Force research.[29] Thresholds for FY 2003 and FY 2018 from DoD Comptroller documentation. Adjustments based on Bureau of Labor Statistics CPI-W inflation data.[30]

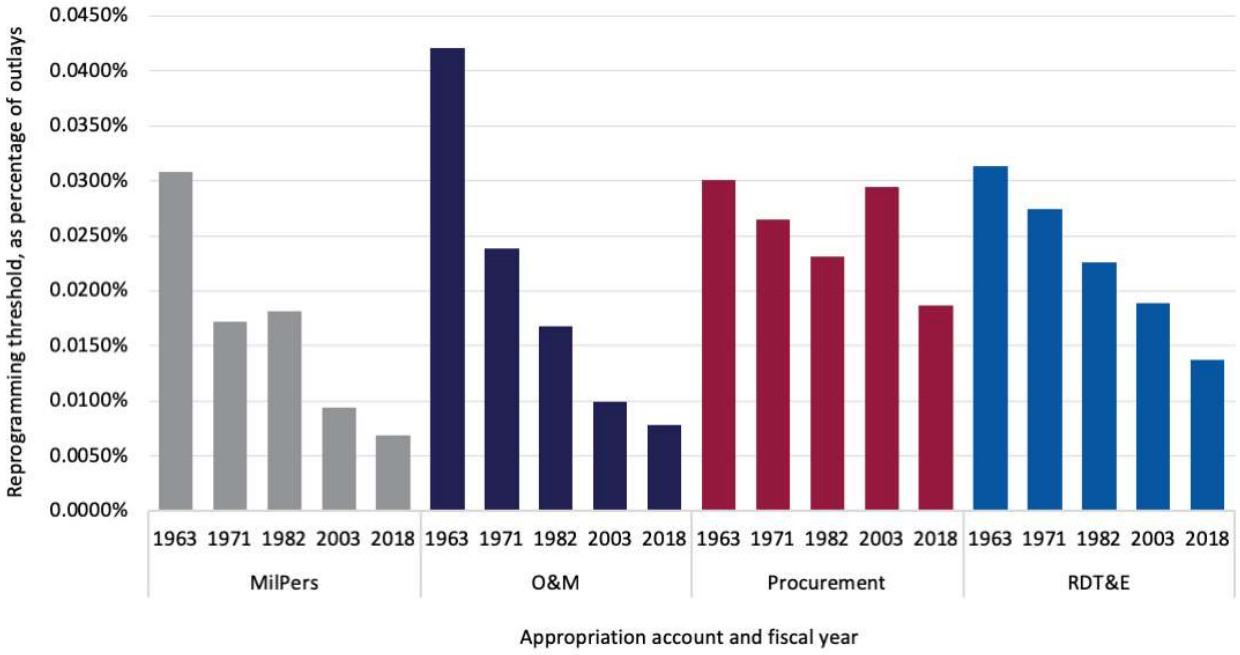
As a percentage of total DoD outlays by account, reprogramming dollar thresholds are also much lower than they have been historically (see Figure 4-6).

http://comptroller.defense.gov/Portals/45/Documents/execution/reprogramming/fy2003/policy_letter/BTR_Authority_Policy_Memo.pdf. For threshold changes in FY 2018, see DoD Comptroller, *Summary of Reprogramming Requirements Effective for FY 2018 Appropriation,* accessed June 7, 2018, http://comptroller.defense.gov/Portals/45/Documents/execution/reprogramming/Reprogramming_Overview.pdf.

[29] William Alton Hill, Jr., *Fiscal Law, Incremental Funding, and Conditional Contracts,* January 22, 1985, 201, accessed October 2, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/a161081.pdf.

[30] Inflation adjustments based on average of monthly rates for CPI-Urban Wage Earners and Clerical Workers (Series ID "CWUR0000SA0"). Data includes only the first four months of calendar year 2018. See "Databases, Tables & Calculators by Subject," Bureau of Labor Statistics, accessed June 8, 2018, https://data.bls.gov.

Figure 4-6. Reprogramming Dollar Thresholds as Percentage of Individual Title Outlays



Thresholds for FY 1963 and FY 1971 from versions of DoDI 7250.10 dated March 5, 1963 and April 1, 1971, provided by DoD Historical Office. Thresholds for FY 1982 from mid-1980s Air Force research.[31] Thresholds for FY 2003 and FY 2018 from DoD Comptroller documentation. Percentages represent the ratio of reprogramming dollar threshold to total outlays associated with the indicated appropriation category.[32]

Discussion

Reprogramming limits have been adjusted several times, most recently in 2015; however, reprogramming dollar threshold limits have not kept up with inflation for the programmatic limits associated with the individual appropriation types.

Reprogramming Thresholds

Figure 4-6 illustrates that the Procurement and RDT&E reprogramming thresholds, adjusted by either inflation or outlay share, are roughly half their levels in the 1960s. O&M reprogramming thresholds are particularly low relative to the 1960s-era outlay ratios. By either of these measurements, the Congress of 1961 allowed DoD far greater reprogramming flexibility than the Congress of 2018.

General Transfer Authority Threshold

The GTA maximum is cumulative and set to a dollar amount specified in each annual appropriations bill. Individual reprogramming decisions count against this annual limit if they cross appropriations accounts and are not otherwise approved by Congress.

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[31] William Alton Hill, Jr., *Fiscal Law, Incremental Funding, and Conditional Contracts,* January 22, 1985, 201, accessed October 2, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/a161081.pdf.

[32] Due to unavailability of FY 1961 data from OMB, FY 1962 outlay data is used in its place. FY 2018 outlays are OMB estimates. See Office of Management and Budget Historical Tables, "Table 3.2—Outlays by Function and Subfunction: 1962–2023," accessed June 7, 2018, https://www.whitehouse.gov/omb/historical-tables.

- GTA for FY 2019: $4 Billion
- GTA for FY 1986: $950 Million

The intended GTA for FY 2019 was $4 billion, or around two-thirds of one percent of the total budget.[33] In FY 1986, DoD's annual budget was about $273 billion, and its corresponding limit was $950 million or around one-third of one percent of the budget.[34]

Although the defense budget has approximately doubled during the last 30 years, the GTA limit has increased more than fourfold. Viewed strictly from the overall transfer authority limit, it appears that Congress and the appropriations committees have granted DoD more flexibility over time, not less. Data from DoD Comptroller show in many years DoD does not use all of its transfer authority and has a residual amount that can be more than $2 billion dollars in some years.[35]

Due to special transfer authority and other tools for reprogramming given to DoD, the GTA limit does not appear to unduly constrict DoD. From 1981 to 1986, DoD requested and received the ability to reprogram an average of 2.7 percent of its annual funding each year.[36] From 1999 to 2006, DoD's annual reprogrammed funds as a percentage of the total budget reached a low of 4.2 percent and a high of 5.4 percent.[37] From 2007 to 2014, DoD requested and reprogrammed about 3.5 percent on average each year.[38]

Conclusions

The best approach for improving flexibility in the Procurement and RDT&E appropriations accounts would be to adopt a standard based on previously granted congressional authority. In the 1960s and 1980s, thresholds were substantially higher relative to purchasing power share of budget outlays. By raising these thresholds, the defense committees can better align with the original intent of the reprogramming process. Raising thresholds will decrease delays during critical phases of the program management and contracting process. Increased thresholds will also allow congressional staff to focus their attention on the largest or most critical programs, flowing down oversight over small programs to DoD.

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[33] See Section 8005 of Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019, Pub. L. No. 115-245 (2018).
[34] Outlay data from Office of Management and Budget, "Table 3.2—Outlays by Function and Subfunction: 1962–2023," accessed June 11, 2018, https://www.whitehouse.gov/omb/historical-tables. For general transfer authority see Section 8020 of Department of Defense Appropriations Act, Pub. L. No. 99-190 (1985).
[35] OSD Comptroller, "Budget Execution Flexibility Tutorial," accessed November 16, 2018, https://comptroller.defense.gov/Portals/45/Documents/execution/Budget_Execution_Tutorial.pptx. See GTA residuals on page 13, chart labeled "GTA Authority vs. Use By Year" (residuals in FY 2008, FY 2009, and FY 2014 all reached or exceeded $2 billion).
[36] GAO, *Budget Reprogramming: Department of Defense Process for Reprogramming Funds, GAO/NSIAD-86-164BR,* July 1986, 2, accessed June 30, 2017, http://www.gao.gov/assets/80/75702.pdf.
[37] Chad Roum, "The Nature of DoD Reprogramming," Naval Postgraduate School, June 2007, 40, accessed November 16, 2018, http://www.dtic.mil/dtic/tr/fulltext/u2/a473540.pdf.
[38] OSD Comptroller, "Budget Execution Flexibility Tutorial," accessed November 16, 2018, https://comptroller.defense.gov/Portals/45/Documents/execution/Budget_Execution_Tutorial.pptx. Also see Office of Management and Budget, "Table 5.2 – Budget Authority by Agency: 1976 – 2023," accessed November 16, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/02/hist05z2-fy2019.xlsx. Figure of 3.5 percent based on average PA and Internal reprogramming dollar values in chart "Dollar Value of Implemented Reprogramming Actions Per Year" on page 6 of OSD Comptroller document and average annual budget authority in line item "Department of Defense—Military Programs" of OSD document.

In most discussions with DoD acquisition personnel, reprogramming complaints were related to the perceived low thresholds for BTR thresholds for Procurement and RDT&E. DoD personnel did not express the same level of frustration at either the individual BTR threshold for O&M or the broader thresholds applied to GTA in appropriations laws.

In the FY 2018 appropriations bill, Congress reduced the GTA from $4.5 billion to $4.25 billion.[39] In FY 2019, Congress further reduced the GTA to $4 billion.[40] Congress may wish to increase the GTA in future appropriations bills to provide the same level of overall flexibility as previously granted.

Implementation

There are several ways in which reprogramming dollar thresholds could be recalculated to align with the amounts established in the 1960s or 1980s. The new thresholds that would result from various methods are shown in Table 4-1 below.

Table 4-1. Reprogramming Dollar Thresholds, if Reset to 1963 or 1982 Equivalents[41]

Appropriation Category	O&M	Procurement	RDT&E
Current Threshold (million U.S. Dollars)	$15	$20	$10
Threshold in FY 1963 (million U.S. Dollars)	$5	$5	$2
Threshold in FY 1982 (million U.S. Dollars)	$10	$10	$4
FY 1963 adjustment	12.4%	12.4%	12.4%
FY 1982 adjustment	37.6%	37.6%	37.6%
FY 1963 threshold-to-outlay ratio	0.00042	0.00030	0.00031
FY 1982 threshold-to-outlay ratio	0.00017	0.00023	0.00023
FY 2018 estimated outlays (billion U.S. Dollars)	$255.9	$107.4	$72.8
New thresholds shown in million U.S. Dollars, if:			
Inflation-adjusted to FY 1963	$40.4	$40.4	$16.2
Inflation-adjusted to FY 1982	$26.6	$26.6	$10.6
Outlay-adjusted to FY 1963	$107.7	$32.3	$22.8
Outlay-adjusted to FY 1982	$42.9	$24.8	$16.4

Congressional committees should revise their reprogramming guidance to permit DoD to modify the Financial Management Regulation to raise BTR thresholds to previous levels, as measured by inflation adjustment and the ratio of dollar thresholds to account outlays. These adjustments support increases of $20 million to the Procurement threshold and $10 million to the RDT&E threshold.

[39] See Section 8005 of Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018).
[40] Division A, Section 8005 of Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019, Pub. L. No. 115-245 (2018).
[41] Calculations based on Section 809 Panel staff analysis of Comptroller documents, OMB outlay information, BLS inflation data, and original research.

Legislative Branch

- Adjust portfolio-level Procurement and RDT&E reprogramming thresholds to match earlier shares of appropriations account category outlays:
  - Current Procurement Reprogramming: $20 million
  - Proposed Procurement Reprogramming: $40 million (+$20 million)
  - Current RDT&E Reprogramming: $10 million
  - Proposed RDT&E Reprogramming: $20 million (+$10 million)
- This change would primarily fall within the jurisdiction of the appropriations committees. It would likely be implemented via the reprogramming guidance explanatory language accompanying the conference report of a regular defense appropriations law.

Executive Branch

- Amend the reprogramming dollar limits to the proposed levels in Volume 3, Chapter 6 of the FMR.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 48: Increase to 50 percent the *lesser of 20 percent* restriction that creates artificially low reprogramming thresholds for smaller programs.

Problem

The large number of budget line items in budget documentation means that many have only a few million dollars in annually allotted funding. These low dollar amounts, combined with language currently in the FMR, mean that reprogramming thresholds for smaller programs are artificially low. These low thresholds reduce flexibility and limit the ability of smaller programs to respond to needs as they arise.

Background

When determining the threshold applicable to a potential reprogramming action, DoD must abide by percentage limitations in addition to dollar thresholds. Regardless of the dollar amount, reprogramming requests moving more than 20 percent of a line item within the RDT&E or Procurement accounts must receive the same approval from Congress.[42] This approach is sometimes colloquially referred to as the *lesser of 20 percent* rule.

[42] Department of Defense, *Financial Management Regulation, Volume 3: "Budget Execution – Availability and Use of Budgetary Resources,* Chapter 6: Reprogramming of DOD Appropriated Funds," 6-9, accessed June 30, 2017, http://comptroller.defense.gov/Portals/45/documents/fmr/Volume_03.pdf.

If a line-item dollar total falls below five times the relevant BTR threshold ($100 million for Procurement or $50 million for RDT&E), it is effectively limited by the *lesser of 20 percent* rule rather than the normal dollar thresholds. DoD has hundreds of research and development (R&D) programs and procurement programs that are limited by the *lesser of 20 percent* rule and not by the dollar amount threshold.

Financial Management Regulation

The FMR states the following requirement for congressional approval of a reprogramming for procurement or RDT&E:

> *A cumulative increase of [$20 million for Procurement / /$10 million for RDT&E] or more or 20 percent of the program base amount ….whichever is less.*[43]

The percentage limits and *whichever is less* clause were added following the enactment of the FY 2005 defense appropriations act and its accompanying conference report explanatory statement.[44]

Discussion

The standard reprogramming thresholds do not, in fact, apply to the majority of line items in DoD's acquisition budget. Line items with smaller dollar values are bounded not by the threshold dollar limits, but rather by an FMR restriction on moving more than 20 percent of funds into or out of a budget line item without PA.

There are about 2,000 funded line items split about evenly between DoD's RDT&E and Procurement accounts. About 60 percent of the RDT&E line items are for less than $50 million, and about 70 percent of Procurement line items are for less than $100 million (see Table 4-2).[45] Providing relief in this area by increasing or removing the percentage cap would greatly assist DoD in flexibly managing its budget during the fiscal year.

Table 4-2. Number of FY 2019 Budget Request Line Items that Would Face Artificially Low BTR Thresholds Due to the *Lesser of 20 Percent* Rule[46]

	RDT&E ($10M threshold)	Procurement ($20M threshold)
Positively funded line items	920	920
Line items below five times the relevant BTR threshold	576	655
Percentage of line items for which *lesser of 20 percent* rule determines BTR thresholds	63%	71%

[43] Ibid.
[44] Department of Defense Appropriations Act, 2005, Pub. L. No. 108-287 (2004). Also see conference report joint explanatory statement for H.R. 4613 in the 108th Congress (Report 108-622), 68.
[45] 20 percent of $50 million is the $10 million BTR threshold for RDT&E; therefore the majority of RDT&E line items are governed by the 20 percent threshold and not the $10 million dollar threshold. The same is true of Procurement line items with respect to the $20 million BTR threshold. Based on Section 809 Panel analysis of FY 2019 budget request R-1 data.
[46] Based on Section 809 Panel analysis of R-1 and P-1 displays in FY 2019 DoD Budget Request from DoD Comptroller website, accessed August 3, 2018, https://comptroller.defense.gov/Budget-Materials.

Congressional Reaction Against Certain Funding Reductions

According to the GAO, in 2003 DoD used the BTR process to reduce funding in hundreds of RDT&E programs to pay for higher priority funding needs.[47] DoD submitted reprogramming reports to Congress months after they would have been useful to the congressional defense committees.

This spotty reporting of funding increases occurred in the early years of the conflicts in Iraq and Afghanistan. The top two programs for which the Air Force used BTRs to increase funding in FY 2003 were airlift squadrons and aerial refueling. The top program for which the Army used BTRs to increase funding was combat vehicle and automotive advanced technology.[48]

GAO also found that reports to Congress could not be supported by the military services' financial systems. In 2003 more than 30 percent of the BTR actions sent to Congress either differed or were otherwise not supported by Army financial systems.[49]

As of 2018, the need to reallocate large amounts of funding to specific operational needs such as airlift squadrons, aerial refueling, and armored vehicles has become less urgent. DoD has also adopted new financial systems and is improving internal controls as it works toward financial statement auditability. The BTR reports to Congress are now submitted each fiscal quarter in a timely manner and in uniform spreadsheet formats. The problems that led to the *lesser of 20 percent* rule have been addressed through improved business systems and internal controls.

Conclusions

The *lesser of 20 percent* rule materialized as a reaction against DoD's funding of large-dollar line items by reducing funds in many small-dollar line items. These reprogramming practices occurred in the early stages of the Iraq and Afghanistan conflicts, and the circumstances that led to them no longer exist. The *lesser of 20 percent* rule may have been a necessary control when initially added to DoD regulations. The low percentage threshold, however, is no longer necessary to allow for congressional committees to exercise proper oversight over small-dollar defense acquisition programs.

The defense committees and DoD should reach an agreement to allow BTRs of up to 50 percent of budget line item totals. Doing this would have the effect of loosening the current 20 percent constraint on smaller programs, which leads to artificially low dollar thresholds.

BTRs within appropriations accounts and within portfolios would be within the jurisdiction of portfolio managers. BTRs within appropriations accounts but crossing portfolios would be in the jurisdiction of the Military Services. These BTRs would in all cases require notification of resource sponsors, military departments, the DoD Comptroller, and Congress.[50]

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[47] GAO, *Defense Acquisitions: Better Information Could Improve Visibility over Adjustments to DOD's Research and Development Funds, GAO-04-944*, September 2004, accessed August 29, 2017, http://www.gao.gov/assets/250/244205.pdf.
[48] Ibid, 37-38.
[49] Ibid, 11.
[50] This requirement is already being met via the quarterly publication of departmentwide BTR data on the DoD Comptroller website.

Implementation

Legislative Branch

- Increase the percentage thresholds associated with the acquisition appropriations account categories in the reprogramming section of the FMR. This action would allow for more flexible movement of funds into or out of small dollar RDT&E and Procurement programs. This change would primarily fall within the jurisdiction of the appropriations committees. It would likely be implemented via the conference report joint explanatory statement of a regular defense appropriations law.

Executive Branch

- After negotiation with the congressional defense committees, the DoD Comptroller should raise the thresholds associated with the "whichever is less" clauses within the Procurement and RDT&E limitations on reprogramming in the FMR.
  - Increase 20 percent to 50 percent in the RDT&E and Procurement clauses of Volume 3, Chapter 6 of the FMR. This action would increase the amount of reprogramming flexibility for small-dollar programs, but not permit DoD to zero out budget line items.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

RECOMMENDATION 49 IS A STAND-ALONE RECOMMENDATION ABOUT BUDGET PERIODICITY

Recommendation 49: Provide increased flexibility to the time periods within which contract obligations are permitted to occur.

Problem

End-year contract obligation surges, spurred by a *use-it-or-lose-it* mentality, can lead to lower-quality requirements and contracts, inefficient allocation of resources, degraded negotiating leverage and pricing power, and a negative effect on workforce morale.

Background

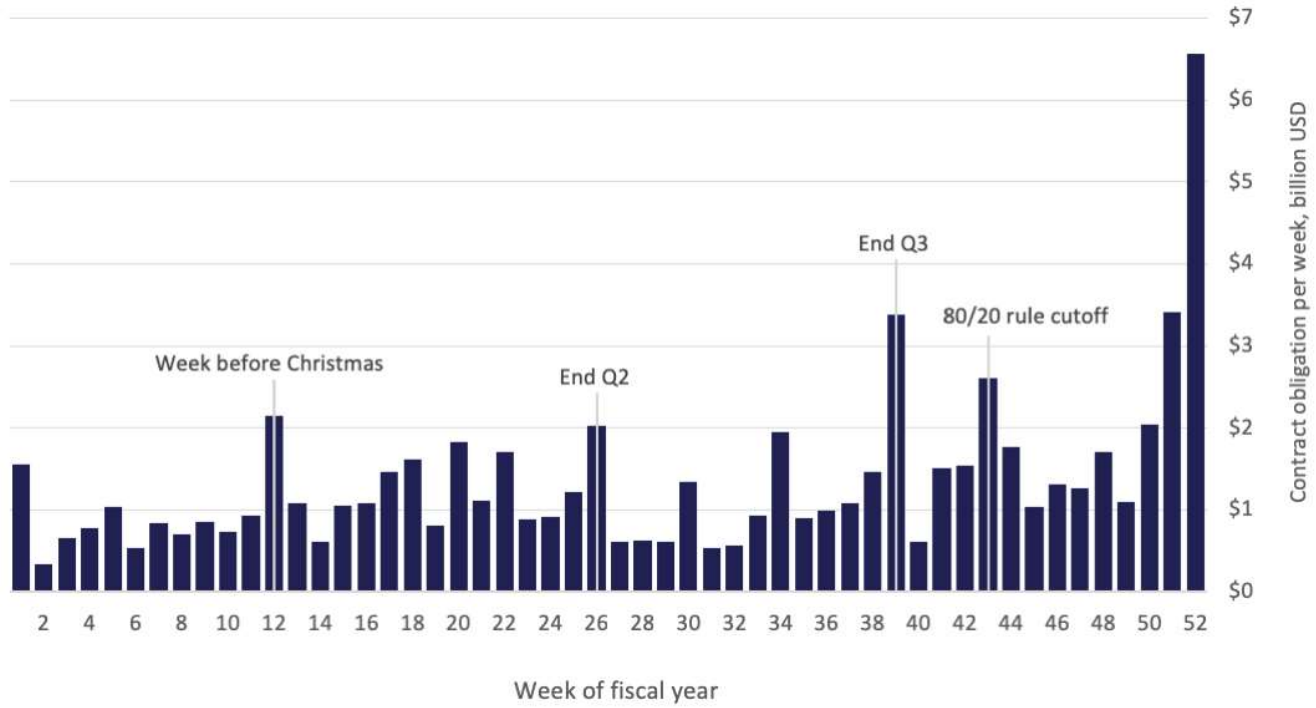
DoD acquisition, like other forms of government spending, is funded through the congressional appropriations process. Each appropriation account has a specific periodicity, or block of time within which DoD has the budget authority to obligate funds to buy products and services.

A key performance metric for DoD's budget execution is its obligation of appropriations within given time periods (obligation rate). The obligation rate measure drives tactical and strategic spending decisions throughout the fiscal year. Throughout the acquisition community there is a strong cultural

belief that if funds are not obligated, they will be reallocated to other projects or reduced in future appropriations.

Because of these beliefs, which may in many cases be justified, an obligation surge occurs at the end of each fiscal year. This rush to spend, spurred by a use it or lose-it mentality, can lead to lower-quality requirements and contracts, inefficient resource allocation, degraded negotiating leverage and pricing power, and a negative effect on workforce morale.

Figure 4-7. Weekly Obligations on Contracts under O&M Appropriations Account, FY 2017[51]



End-period defense contract spending is concentrated largely in the O&M appropriations accounts. Although other acquisition-focused appropriations accounts have multiyear obligation authority, O&M funding must be obligated within the span of a single year.

If Congress and other decision makers chose to address end-year obligation surges by mandating their reduction (for instance, by imposing a monthly percentage cap on DoD contract obligations, essentially a much more rigorous version of the 80/20 rule) it would likely eliminate the distorted annual spending patterns seen in acquisition data. It would, however, represent an additional incentive for acquisition personnel to prioritize timing over procurement quality. In this way, such an approach might simply address symptoms rather than problems.

[51] Analysis of FPDS data based on Treasury Account Symbol (TAS) codes, June 8, 2018. See Department of the Treasury, *Federal Account Symbols and Titles (FAST) Book,* March 2018, accessed June 8, 2018, https://www.fiscal.treasury.gov/fsreports/ref/fastBook/fastbook-march-2018.pdf. To ensure comparability of data, each weekly period contains the same days of the week (counted backwards from September 30). The extra day at the beginning of FY 2017 is included in the first week.

Greater flexibility of DoD's acquisition budget authority across time periods would likely increase the efficiency and effectiveness of contract spending within those time periods. Such changes would also preserve Congress's ability to determine the total, long-term dollar amount spent on individual DoD components, appropriation titles, or programs.

A full expansion of O&M obligation authority to multiple years would limit Congress's ability to control how much is spent from one period of time to the next. Many in Congress clearly view this ability as a core aspect of the oversight process.

A more feasible and low-risk approach would be to permit the obligation of up to 5 percent of O&M funding for 1 year beyond what would normally be the end of its fiscal year availability. This change would allow for a smoothing effect across fiscal years, mitigating the perceived urgency to spend all available funds by end-year.

By law, DoD has set periods of time within which it is required to obligate and disburse appropriated funds. These periods of time are referred to as budget *periodicity*. *Overexecution* and *underexecution* are terms used to describe whether a program obligates and disburses money within set timeframes. These metrics are commonly used as short-term proxies for program success.

Multiple levels of periodicity constraints are applied to DoD spending. The highest-level constraints are those imposed by Congress on a fiscal-year basis. OMB may impose its own periodicity constraints on an annual or quarterly basis. Below this level, DoD and military departments conduct internal reviews of whether funds are on track to be fully executed by the end of the year. PEOs and PMs often self-impose monthly and weekly deadlines to obligate or expend funds.

At any point in the budget and acquisition process, failure to ensure obligation or expenditure at target rates may lead to reductions of future funding. The reduction of future funding as a consequence of failure to obligate current funding serves as a powerful perverse incentive for acquisition personnel to spend money regardless of the return on their investment.[52] This incentive may lead to several negative outcomes:

- **Lower-quality contracts** may result directly from end-period surges. Because of the high workload associated with surges in obligations or disbursements, contract reviews may be less detailed and reviewers may be less likely to detect problems.
- **Inefficient allocation of human capital** may occur when acquisition professionals are focused more on timing of spending and less on value and return on investment.

[52] A 2012 memo by the Under Secretary of Defense (Comptroller) and the Under Secretary of Defense for Acquisition, Technology, and Logistics noted that "the threat that funding will be taken away or that future budgets can be reduced unless funds are obligated on schedule is a strong and perverse motivator." The memo added that DoD risked "creating incentives to enter into quick but poor business deals or to expend funds primarily to avoid reductions in future budget years." See Robert Hale and Frank Kendall, "Department of Defense Management of Unobligated Funds; Obligation Rate Tenets," September 10, 2012, accessed November 16, 2018, https://www.acq.osd.mil/fo/docs/OSD%20Memo_DoD%20Mgt%20of%20Unobligated%20Funds_Obligation%20Rate%20Tenets_10Sep12.pdf.

- **Unnecessary purchases may occur** if acquisition authorities are motivated to obligate excess money purely to avoid future funding reductions.
- **Loss of negotiating power** and **loss of pricing power** may occur when potential vendors know exactly how much money is available to a program office and the precise deadlines by which each portion of that money must be spent. The resulting decrease to return on investment may constitute an inefficient use of taxpayer resources.
- **Lower employee morale** can result from a chaotic end-year workload.[53]
- **Auditing may be more complex and difficult** due to the need to track time periods as well as appropriation accounts and budget line items.

Defense Acquisition Budget Terms
Allocation is funding made available by DoD component-level authorities to lower-level authorities.
Allotment is funding made available by lower-level DoD authorities to the operating level.
Apportionment is the distribution of funding from the Office of Management and Budget to DoD.
Appropriations are enacted each year by Congress and provide the legal authority for DoD to spend money.
Budget execution is the process of incurring the funding liabilities needed to move a program forward.
Budget periodicity is the phenomenon of funding accounts being locked to specific spans of time as mandated in annual appropriations laws.
Color of money is a colloquial phrase that can refer to the periodicity requirements, appropriation account, and/or program and purpose of a specific budget line item.
Continuing resolutions (CRs) are stopgap appropriation laws enacted to provide temporary government funding for part of the fiscal year.
The **80/20 rule** is included in annual appropriations bills and generally requires that at least 80 percent of single-year funds be obligated by the end of July.
Obligations are legal commitments to spend money by a U.S. government representative (in DoD acquisition, a contracting officer). Under 31 U.S.C. § 1502, U.S. government appropriation periodicity is defined according to the date on which money is obligated.
Regular appropriations fund DoD for the entire fiscal year and are enacted each year through a standardized committee process.

[53] Army contracting officers, discussions with Section 809 Panel, September 2017.

Fiscal Law Basics
Anti-Deficiency Act: 31 U.S.C. § 1341 and § 1517: This law prohibits government employees from making or authorizing expenditures and obligations in excess of congressional appropriations or OMB apportionments.
Bona Fide Needs Rule: 31 U.S.C. § 1502(a): Under this section of U.S. Code, obligation authority limited to a specific time period is only available to "complete contracts properly made within that period of availability."
Impoundment Control Act: 2 U.S.C. § 682, §683, and § 684: This law requires government employees to obligate funding that has been appropriated by Congress. To defer budget authority, the president must notify Congress and deferrals "may not be proposed for any period of time extending beyond the end of the fiscal year" in which notification occurs.
Misappropriation Act: 31 U.S.C. § 1301: This law requires that money only be used for the purposes specified in congressional appropriations.
Multiyear Appropriations: 10 U.S.C. § 2306b and § 2306c: This section of U.S. Code provides the legal basis to obligate appropriated money in future years. Depending on the appropriation account, DoD may obligate funding over the course of 1, 2, 3, or 5 years (*color of money*).

Appropriations Law Background

In the annual U.S. federal budget system, Congress appropriates money for agency use within the date-range of a specific fiscal year. This money is not to be used beyond that timespan, or it may lead to an antideficiency violation.[54] Statutory constraints on budget periodicity apply to the dates at which funds are obligated (as opposed to disbursed).[55]

Defense acquisition appropriations can be either single-year or multiyear. Single-year appropriations are typically used for low-risk projects such as service contracting under O&M budget authority. Multiyear appropriations constitute a longer-term form of budget periodicity, in which appropriated dollars may in some cases be used by DoD within a span of multiple years. A shorter-term form of budget periodicity in defense appropriation law is the 80/20 rule for O&M appropriations. Agency processes in both OMB and DoD constitute short-term, nonstatutory forms of budget periodicity.

The main form of periodicity in DoD budgeting is Congress's appropriation of funds for use within a specific fiscal year or specific span of several fiscal years. Annual appropriations and other forms of budget periodicity are relevant to defense acquisition because some observers suggest that periodicity leads to inefficient, low-quality contract outcomes.

Congress imposes time limits on obligation and expenditure of funds for several reasons. These time limits allow for a regular, standardized oversight process to occur by default each year. They also address the concern that if funds do not automatically expire, they will accumulate into large unobligated balances that could be used for purposes unapproved by Congress. This concern appeared

[54] 31 U.S.C. § 1341 lays out timing restrictions on the obligation of funds. 31 U.S.C. § 1350 imposes a criminal penalty of up to two years' imprisonment on government employees who obligate unappropriated funds.
[55] Balances Available, 31 U.S.C. § 1502.

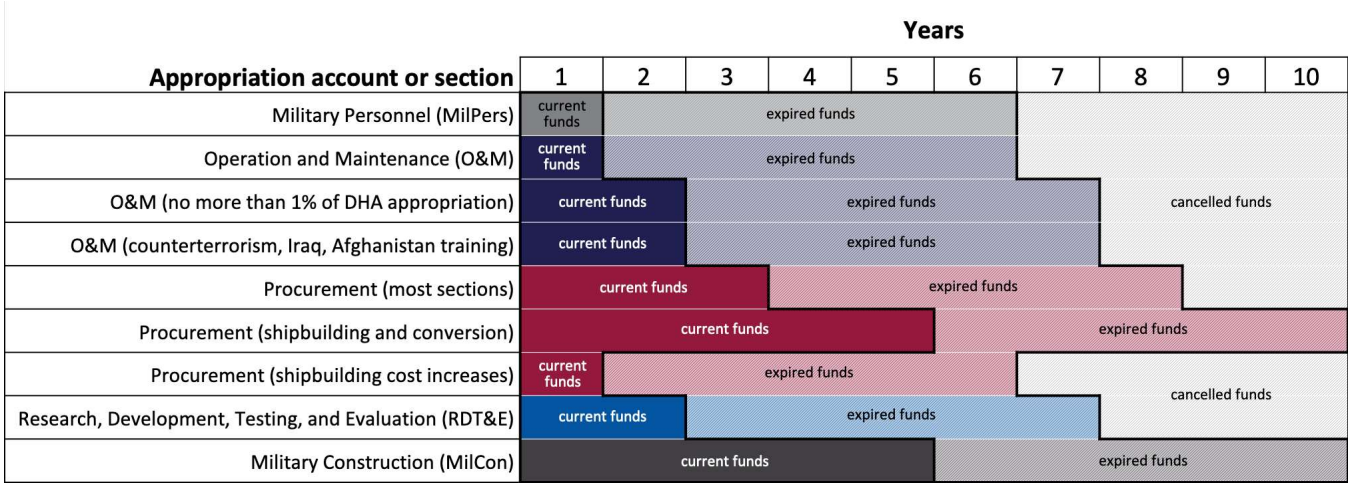
to be implicit in some congressional discourse during the 1980s and 1990s, referring to the flexible budgeting authorities DoD held at the time as slush funds.[56]

Periodicity in Congressional Appropriations

DoD is permitted to enter into contract obligations "for the purchase of property or services for more than one, but not more than five, program years."[57] These varying lengths of funding availability, combined with the specific budget account to which they refer, are informally known as colors of money. Colors of money are written into the individual title authorities in annual defense appropriation laws. In some cases, special color of money provisions are written into individual appropriation law titles and subtitles.

After these periods of obligation authority have elapsed, there are 5 years in which money may be expended on existing obligations before it is canceled (see Figure 4-8).

Figure 4-8. Multiyear Appropriation Examples from FY 2018[58]



Partly in an attempt to mitigate the end-period obligation surges that may be incentivized by a period-based budgeting cycle, Congress regularly incorporates the *80/20 rule* into defense appropriation bills.[59] The 80/20 rule specifies that for single-year appropriation accounts (i.e., Military Personnel and

[56] See, for example, Representative John Dingell's comment quoted by Ralph Vartabedian, "Fight Brews Over $43 Billion in Unspent Defense Funds," Los Angeles Times, March 9, 1990, accessed April 28, 2017, http://articles.latimes.com/1990-03-09/news/mn-2171_1_pentagon-funds. The carry-over accounts in question were eliminated by the 1991 defense authorization (Pub. L. No. 101-510).
[57] Federal Acquisition Streamlining Act, Pub. L. No. 103-355, Sec. 1022 (1994). Also see 10 U.S.C. §§ 2306b and 2306c.
[58] Division C of Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018). DHA refers to Defense Health Agency. Counterterrorism, Iraq, and Afghanistan training O&M appropriation is from FY 2018 defense appropriation Title IX: Overseas Contingency Operations/Global War on Terrorism, Operation and Maintenance accounts. For duration of obligation authority for prior year shipbuilding cost increases, see Section 8072 of Title VIII: General Provisions. The Military Construction title is not present in the Department of Defense Appropriation Act, but rather in the Military Construction and Veterans Affairs, and Related Agencies Appropriations Act (see Division J in FY 2018 omnibus appropriation).
[59] For the 80/20 Rule as it appeared in the FY 2017 omnibus appropriation, see the Consolidated Appropriations Act, 2017, Pub. L. No. 115-31, Division C, Title VIII, Section 8004 (2017). "No more than 20 percent of the appropriations in this Act which are limited for obligation during the current fiscal year shall be obligated during the last 2 months of the fiscal year: Provided, That this section shall not apply to obligations for support of active duty training of reserve components or summer camp training of the Reserve Officers' Training Corps."

Operation and Maintenance), no more than 20 percent of appropriated funds may be obligated in the last 2 months of the fiscal year.

In the FY 2018 defense appropriations bill, the 80/20 ratio was changed to 75/25 (in other words, DoD was permitted to obligate up to 25 percent of single-year funds in August and September).[60] The House Appropriations Committee noted that the adoption of this 75/25 rule was intended to "apply to fiscal year 2018 only" and was "necessary due to the delay of the final passage of this year's appropriation bill, combined with the large funding increase made possible by the Bipartisan Budget Act of 2018."[61]

Periodicity in OMB

Apportionment is the process by which OMB grants agencies the approval to use appropriated funds. Apportionments are governed by OMB Circular A-11 and are legally binding.[62] They can limit the dollar obligations that DoD is permitted to incur for specified time periods, programs, and activities.[63] The reason apportionment was originally established, according to one scholar of federal and defense budget issues, was that "agencies demonstrated an inability to live within their means if given their entire budget up front, causing Congress to bail them out with deficiency appropriations."[64]

In defense acquisition, apportionments are approved on a quarterly basis. Contracting authorities are constrained in their ability to allocate funding between one quarter and another.[65] In this way, apportionment resembles a smaller-scale version of appropriation-level periodicity, constraining DoD's ability to move resources between quarters in addition to years.

DoD Comptroller Periodicity

The DoD acquisition community broadly believes that if a program's funding is not obligated within the first year of appropriation, program funding will be cut in subsequent budget or reprogramming requests to Congress, a phenomenon known informally as a *budget sweep*, or more formally as *rephasing*. Although the phenomenon is widely and commonly discussed in defense acquisition circles, there does not appear to be an official policy to this effect in any DoD instructions or directives. Midyear and end-year reviews identify inadequately funded current-year needs, which drive this phenomenon.

The DoD Comptroller's office states that DoD rephases future budgets based on prior-year budget execution to "reduce or eliminate the excessive accumulation of unspent funds and… reduce the carryover of funds from one fiscal year to another."[66] A statement from the Comptroller's office suggests that much of this rephasing is done to comply with implicit congressional demands:

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[60] See Section 8004 of Division C of the Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018).
[61] Congressional Record Vol. 164, No. 50, Book II, Explanatory Statement for Pub. L. No. 115-141, Operation and Maintenance Flexibility, March 22, 2018, 113, accessed June 8, 2018, https://www.congress.gov/crec/2018/03/22/CREC-2018-03-22-bk2.pdf.
[62] Prohibited Obligations and Expenditures, 31 U.S.C. § 1517.
[63] OMB Circular A-11, Part 4, Section 120.1, updated 2016, accessed April 27, 2017, https://obamawhitehouse.archives.gov/omb/circulars_a11_current_year_a11_toc.
[64] Naval Postgraduate School budget professor, emails with Section 809 Panel, September 2017.
[65] DoD Financial Management Regulation, Volume 3, Chapter 2, Section 020102, updated February 2009, accessed April 26, 2017, http://comptroller.defense.gov/Portals/45/documents/fmr/archive/03arch/03_02_Feb09.pdf.
[66] DoD Comptroller staff, emails with Section 809 Panel staff, March 2017.

> *The proper phasing of resources ensures the prudent request and execution of funds. Without this fiscal discipline, programs could accumulate large unobligated cash balances, leading to unfavorable congressional scrutiny… Note that the congressional appropriation committees use identical execution performance metrics annually when they review the Department's funding request. If the Department does not adjust the budget request for actual execution, the congressional appropriation committees will do so, realigning those low executing programs funds toward other programs that are the priorities of the Chairman (which may not be the same as those of the Secretary of Defense).*[67]

Military Service Periodicity

The DoD Comptroller provides rule-of-thumb goals for obligation of certain types of funding by certain points in time.[68] Military Services have also historically provided obligation and expenditure goals according to which their constituent elements are expected to spend money.[69]

These goals are not legally binding and acquisition budget experts state that they are guidelines, not required policy.[70] Comptroller personnel state that obligation and expenditure goals are intended "to identify programs that need to be discussed by acquisition and financial personnel" (in other words, to serve as an advance warning to leadership if something is wrong with a program).[71] These goals may, however, be perceived by acquisition managers as expectations which, if unmet, may result in future funding cuts.

To mitigate this perceived likelihood of future cuts (via congressional appropriations, DoD budget requests, or Comptroller rephasing) PMs may feel great pressure to obligate currently-available funding within fixed periods of time. Despite the fact that spending targets are not legally binding, Military Services may feel compelled to apply targets at least as high as the DoD Comptroller to ensure the DoD Comptroller targets are met at the service level.

DoD and military department memoranda bear out this hypothesis. As of the late 2000s, DoD suggested that 90 percent of RDT&E money should be obligated in the first year of appropriation. As of 2003, an Army memo used 95 percent as its first-year obligation goal, clarifying that

> *Target obligation and disbursement rates are not directive in nature; however, they will be used as a performance indicator to potentially reallocate funding during the year of execution.*[72]

At the lower levels of the acquisition system, some DoD program offices reportedly conduct reviews to ensure full obligation of funds on a weekly or even daily basis.[73]

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[67] DoD Comptroller staff, emails with Section 809 Panel staff, March 2017.
[68] "OUSDC Rule-of-Thumb Acquisition Obligation and Expenditure Rates," as of May 2017, Defense Acquisition University, accessed November 16, 2018, https://www.dau.mil/tools/Lists/DAUTools/Attachments/292/OSD%20(C)%20Color%20Rule-of-Thumb%20Acq%20Obligation%20and%20Expenditure%20Rates.pdf.
[69] DoD Comptroller memorandum, "Budget Execution Measures," obtained from Defense Acquisition University, October 7, 1996.
[70] DAU professor of financial management, conversation with Section 809 Panel, September 2017.
[71] Former DoD Comptroller official, discussion with Section 809 Panel, September 2017.
[72] Department of the Army, Office of the Assistant Secretary (Financial Management and Comptroller), "Obligation/Disbursement Rates for Execution of FY02/03 RDTE Funds," January 17, 2003.
[73] DoD PMs and contracting officers, conversations with Section 809 Panel, May to July 2017.

Table 4-3. Comparison of Spending Targets, DoD and Department of the Army[74]

Spending Target and Timeframe	Obligation Rate		Expenditure Rate	
	DoD	Army	DoD	Army
RDT&E, by end of Y1 Q2	45%	56%	28%	22%
RDT&E, by end of Y1 Q4	90%	95%	55%	56%
RDT&E, by end of Y2 Q2	95%	97%	73%	84%
RDT&E, by end of Y2 Q2	100%	100%	90%	91%

Discussion

End-year federal government contract spending surges have been of concern to Congress for many decades. In 1980, GAO stated that such surges "contribute to increased overtime costs, reduced staff morale, and poorer quality contracts and grants."[75] In 2015 and 2017, Congress investigated the phenomenon of wasteful spending at the end of the fiscal year.[76]

There is almost certainly a causal link between budget periodicity and distortions in contract spending across the fiscal year cycle. Publicly available federal contracting data show a strong and clear correlation between surges in contract spending and the dates that mark the expiration of funding or internal budget reviews.

Senior government officials and independent observers have also suggested that the resulting end-year concentration of contract obligations can in some cases lead to lower-quality contracts, inefficient allocation of human resources, purchase of unnecessary items, poorer bargaining position for federal agencies, lower morale among acquisition employees, and greater difficulty in performing audits.

These problems are exacerbated by the many layers of command that exist between appropriations and the obligations. Each layer may feel compelled to hold a certain amount of funding to address any unanticipated problems late in the fiscal year. A budgeting expert wrote the following:

> *If one assumes four layers in the chain of command and each layer holds back 3%, that means the lowest layer only received 88.5% of the funding and the remaining 11.5% will come cascading down late in the year. In some cases, that last unit—an installation, squadron, or program office may see 10%-15% of its annual budget authority appear in the last few weeks of the year.*[77]

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[74] "OUSDC Rule-of-Thumb Acquisition Obligation and Expenditure Rates," obtained from Defense Acquisition University, December 2009. Department of the Army, Office of the Assistant Secretary (Financial Management and Comptroller), "Obligation/Disbursement Rates for Execution of FY02/03 RDTE Funds," January 17, 2003.

[75] GAO, *Federal End-Year Spending: Symptom of a Larger Problem,* October 23, 1980, 8, accessed May 26, 2017, https://www.gao.gov/assets/140/130983.pdf.

[76] "Prudent Planning or Wasteful Binge? A Look at End of the Year Spending," Senate Homeland Security and Government Affairs Committee, September 30, 2015, accessed September 27, 2017, https://www.hsgac.senate.gov/hearings/prudent-planning-or-wasteful-binge-a-look-at-end-of-the-year-spending.

[77] Philip J. Candreva, *National Defense Budgeting and Financial Management: Policy and Practice* (Charlotte, NC: Information Age Publishing, 2017), 315.

One weapons system acquisition professional said that budget periodicity could cause unnecessary increases to cost and schedule of major acquisition programs, noting that "the time restrictions imposed by not only the appropriation, but also artificially by the Comptroller's obligation and expenditure benchmarks, often force PMs into suboptimal spending decisions."[78] The individual added that the "truly perverse incentive" created by the threat of budget cuts is "exacerbated in larger programs, in which the details of program evolution are more likely to change and the cost impact is magnified."[79]

The effect of periodicity at the working level is allegedly that "current policies… effectively punish programs that reduce cost below the budgeted expenditures."[80]

Figure 4-9. Weekly DoD Contract Obligations over the Course of FY 2017[81]

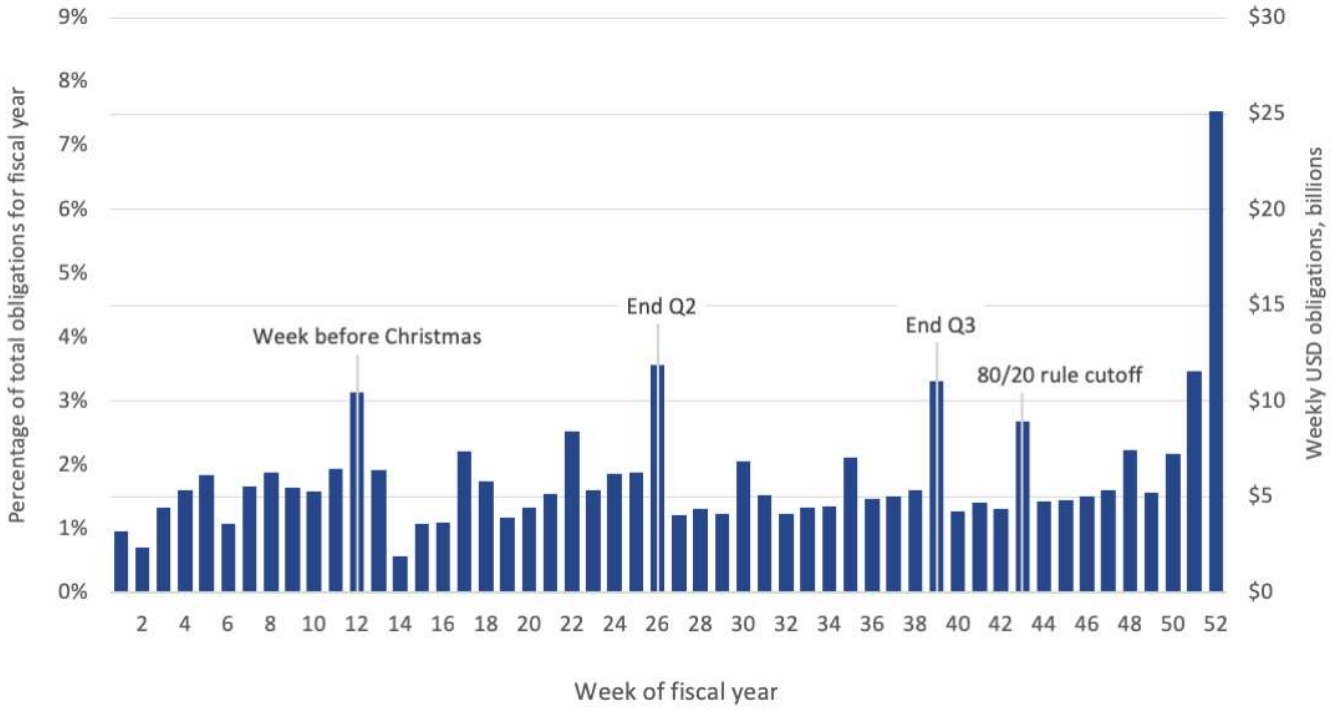


Figure 4-9 shows DoD's weekly contract obligations throughout the fiscal year. In addition to the large peak in contract obligations in the final weeks of September (see rightmost bars of chart), there are smaller peaks visible throughout the fiscal year. Obligation surges occur at the end of December, March, and June. These periods are the end-points of the quarterly blocks within which OMB apportions DoD contract dollars under Circular A–11.

[78] Naval Air Systems Command personnel, communications with Section 809 Panel, September 2017.
[79] Ibid.
[80] Ibid.
[81] Contract obligation data from FPDS, https://www.fpds.gov, accessed June 8, 2018. To ensure comparability of data, each weekly period contains the same days of the week (counted backwards from September 30). The extra day at the beginning of FY 2017 is included in the first week.

A small surge in obligations is also visible in the 43rd week of the fiscal year (at the end of July). This observation overlaps with the deadline imposed under the 80/20 rule, which mandates that at least 80 percent of certain types of obligation occur between the months of October and July. Correlation is not causation, but there is clearly an overlap between surges in DoD contract spending and the end-points of important budgeting periods.

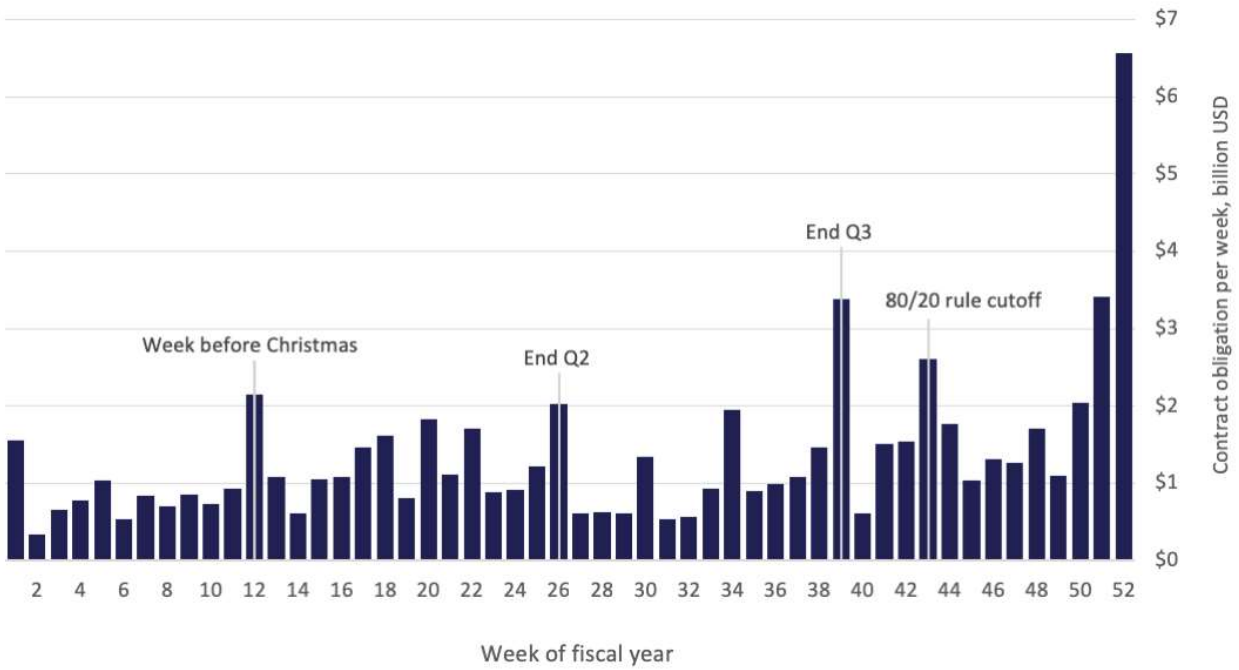
Although this overlap is not conclusive proof, it provides strong evidence that the end-year *use it or lose it* rush to obligate funding is quite real and is driven by the annual periodicity of the U.S. federal budget.

Periodicity-based budgeting practices within Congress, OMB, and DoD appear to be the core cause of end-period obligation surges. Looking in more detail at DoD's contract obligations over the course of the fiscal year can elucidate areas of contracting on which periodicity-based budgets have the greatest effect.

Appropriation Accounts

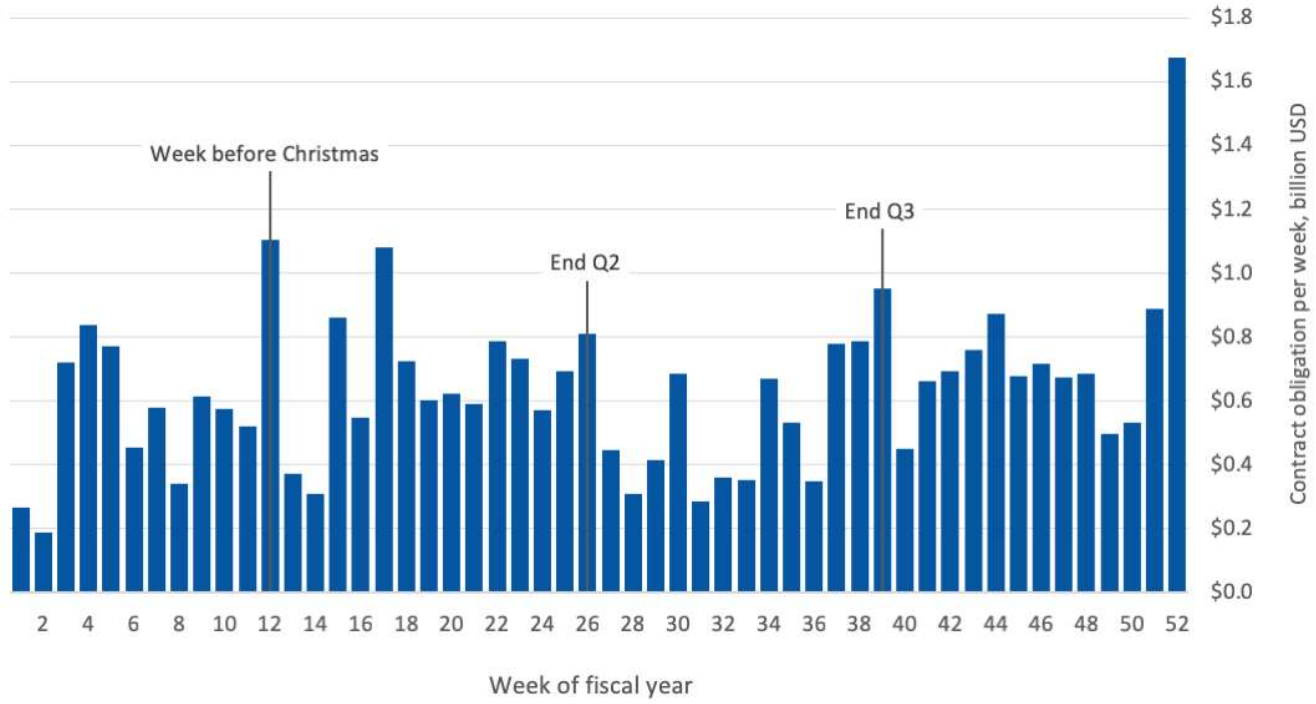
DoD's end-year obligation surges are concentrated in the O&M appropriations account. Other accounts, such as RDT&E, show larger obligation concentrations at midyear. This pattern suggests that during midyear reviews of multi-year appropriation accounts, investment funding is seen as a potential source of money for inadequately funded needs. This phenomenon may drive annual patterns more directly than the periods of appropriation themselves. These periods of appropriation, however, may in turn drive DoD's adherence to midyear obligation targets.

Figure 4-10. Weekly Obligations on Contracts under O&M Appropriations Account, FY 2017[82]



[82] Analysis of FPDS data based on Treasury Account Symbol (TAS) codes, June 8, 2018. See Department of the Treasury, *Federal Account Symbols and Titles (FAST) Book,* March 2018, accessed June 8, 2018, https://www.fiscal.treasury.gov/fsreports/ref/fastBook/fastbook-

Figure 4-11. Weekly Obligations on Contracts under RDT&E Appropriations Account, FY 2017[83]



Military Departments

All DoD service components experience substantial surges in obligation rates during the midyear and end-year months. Not all components, however, experience peaks of the same amplitude.

The Department of the Army, for instance, obligated more than 20 percent of its reported FY 2017 contract obligations in September of that year. The Army's end-year peak exceeded the peaks for the Air Force, Navy, or other DoD components by about 10 percentage points.[84]

In FY 2017, Army contract obligations in September were more than 2.5 times the Army's average monthly obligations during that year. For the other two Military Services, the analogous metric was only about 1.6 times average monthly obligations.[85] This observation could suggest the Army is particularly prone to the expectation of budget cuts as a consequence of unobligated end-year balances.

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march-2018.pdf. To ensure comparability of data, each weekly period contains the same days of the week (counted backwards from September 30). The extra day at the beginning of FY 2017 is included in the first week.

[83] Analysis of FPDS data based on Treasury Account Symbol (TAS) codes, June 8, 2018. See Department of the Treasury, *Federal Account Symbols and Titles (FAST) Book,* March 2018, accessed June 8, 2018, https://www.fiscal.treasury.gov/fsreports/ref/fastBook/fastbook-march-2018.pdf.To ensure comparability of data, each weekly period contains the same days of the week (counted backwards from September 30). The extra day at the beginning of FY 2017 is included in the first week.

[84] According to FPDS data extracted June 8, 2018, the Army obligated $17.2 billion in September 2017 out of $78.3 billion for the entire fiscal year. The Air Force obligated $8.0 billion in September out of $60.8 billion for the entire year. The Navy obligated $15.1 billion out of $109.5 billion for the full year. Other defense agencies combined obligated $8.4 billion in September out of $71.9 billion for the year.

[85] According to FPDS data extracted June 8, 2018, the Army's September obligations were 2.6 times higher than average monthly obligations of $6.5 billion. The Air Force's September obligations were 1.6 times higher than the monthly average of $5.1 billion. The Navy's September obligations were 1.7 times higher than the monthly average of $9.1 billion.

This interpretation is supported by analyses from Army leadership. In April 2016, the Acting Secretary of the Army issued a memo stating, "we often focus on budget execution independent of outcomes," an approach that "leads to bad business practices… 'use or lose' fund execution, and harvesting savings from commands who find new and innovative ways to operate."[86] Lt. Gen. Tom Spoehr, director of the Army's Business Transformation Office, has emphasized the importance of ensuring that "a unit's budget will not be decremented for the sole reason that they failed to expend their money."[87] A 2017 GAO report cited a recent Deputy Assistant Secretary of the Army for Procurement claiming "if the Army does not obligate all of its appropriations before they expire because it could appear that the Army was appropriated more funding than it needed," a perspective that "increases the risk that contractors will not provide the government goods and services in an efficient or effective manner."[88]

For the Air Force and Navy, September obligation surges in FY 2017 were lower than for the Army. Substantially higher obligation surges were observed for the Navy, however, in the final month of the second quarter (at the end of March 2017).[89] Policies implemented at levels below DoD may push back the dates at which end-period surges occur. These surges may not be problems in themselves, but rather indicators of the incentives produced by tiered periodicity requirements embedded in the acquisition funding system.

Products and Services

If contract obligations were distributed with perfect evenness throughout the fiscal year, about 2 percent of all product and service contract obligations would occur each week.[90] DoD-reported contract obligation data, however, show that some products have much higher obligations in the final week of September.[91]

For DoD IT equipment contracts, about 14 percent of obligations occur in the final week of the fiscal year.[92] For the category training aids and devices, which include certain types of computers, about 23 percent of obligations occurred in the final week.[93] Communications equipment contract obligations

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[86] Secretary of the Army memorandum, *U.S. Army Directive 2016-16 (Changing Management Behavior: Every Dollar Counts),* April 15, 2016, accessed May 30, 2017, https://www.army.mil/e2/c/downloads/431118.pdf.
[87] "End-of-year 'use it or lose it' budget mindset to get tossed," David Vergun, U.S. Army, April 18, 2016, accessed May 30, 2017, https://www.army.mil/article/166098.
[88] GAO, *Army Contracting: Leadership Lacks Information Needed to Evaluate and Improve Operations, GAO-17-457,* June 2017, 10, accessed November 15, 2017, http://www.gao.gov/assets/690/685425.pdf.
[89] According to FPDS data extracted June 8, 2018, the Navy obligated $13.2 billion in March 2017, about $4 billion higher than the average monthly obligation rate.
[90] Perfectly even weekly percentage distribution of obligations across a non-leap fiscal year = 1 / (365 / 7) = 0.0192.
[91] Product and Service Codes (PSCs), the main U.S. government-administered system for categorizing goods and services purchased under federal contracts, are reported in FPDS at the four-digit level. They are produced by GSA and DLA. For the purposes of this paper, "major categories" are defined as those two-digit product PSCs (or 1-digit service PSCs) with more than $1 billion in total DoD obligations for FY2016. See a machine-readable list of PSCs at "PSC Manual," Acquisition.gov, accessed May 31, 2017, https://www.acquisition.gov/PSC_Manual.
[92] Analysis of FY 2017 FPDS data using PSC group 70 ("automated data processing equipment, software, supplies, and equipment"), accessed June 11, 2018. For contract awards in this category, roughly $900 million was obligated in the last week of September 2017, compared to $7.0 billion for the full fiscal year.
[93] Analysis of FY 2017 FPDS data using PSC group 69 (training aids and devices), accessed June 11, 2018. For contract awards in this category, roughly $350 million was obligated in the last week of September 2017, compared to $1.5 billion for the full fiscal year.

are also highly concentrated at end-year.[94] All of these categories contain at least some IT products, suggesting that IT acquisition may be particularly prone to end-year spending surges.

Service-coded PSCs also show a pattern of IT services being concentrated at end-year. More than 7 percent of IT service contract dollars were obligated in the final week of September.[95]

The most extreme examples of end-year spending concentration, however, are in service contracts related to construction and building maintenance.[96] For maintenance, repair, and alteration of buildings, roughly one-quarter of contract dollars were obligated in the final week of the fiscal year (more than a dozen times what would be expected with even distribution).[97]

Information Technology

The end-year surges in DoD IT contracting may have a variety of immediate causes, some unrelated to budgeting. For example, acquisition personnel may in some cases be unable to award large IT service contracts until the end of the fiscal year, due to the need to clear a variety of slow-functioning approval hurdles.[98]

In other cases, contracting personnel may find themselves with extra money at year end and obligate money to IT support services to avoid expiration of funds. Regular inventory turnover, relatively high per-unit prices, and nonperishability in storage may make IT hardware an attractive commodity for an acquisition professional seeking to expend funds in the short term on products that will be useful in the medium or long term.

One DoD IT acquisition professional suggested that allocation of funding to IT may be "artificially suppressed in favor of core mission requirements."[99] In other words, non-IT needs receive priority over IT needs, and funding is only provided to IT offices at the end of the year once other stakeholders "let the chance to spend money go by."[100]

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[94] Analysis of FY 2017 FPDS data using PSC group 58 (communication, detection, coherent radiation equipment), accessed June 11, 2018. For contract awards in this category, roughly $1.4 billion was obligated in the last week of September 2017, compared to $12.3 billion for the full fiscal year.
[95] Analysis of FY 2017 FPDS data using PSC group D (IT services), accessed June 11, 2018. For contract awards in this category, roughly $900 million was obligated in the last week of September 2017, compared to $13.4 billion for the full fiscal year.
[96] Analysis of FY 2017 FPDS data using PSC groups Y and Z (building construction and building maintenance), accessed June 11, 2018. For contract awards in these categories, roughly $4.5 billion was obligated in the last week of September 2017, compared to $19.6 billion for the full fiscal year.
[97] Analysis of FY 2017 FPDS data using PSC group Z (building maintenance), accessed June 11, 2018. For contract awards in this category, roughly $2.4 billion was obligated in the last week of September 2017, compared to $9.6 billion for the full fiscal year.
[98] Army software IT program staff, communications with Section 809 Panel, May-July 2017.
[99] Acquisition expert in Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (AT&L), emails with Section 809 Panel, September 2017. The individual specified that Army defense business systems operating in sustainment may be particularly susceptible to this scenario.
[100] AT&L expert, emails with Section 809 Panel, September 2017.

A 2013 study measured the correlation between U.S. federal government IT project quality and timing of obligations. The analysis found that there was a statistically significant negative correlation between quality of IT projects and spending at the end of the fiscal year.[101]

Building Construction and Maintenance

For building construction and maintenance, end-year surges are among the highest of any major product or service procured by DoD. More than one-third of contract spending has been obligated in September of recent fiscal years, and about one-fifth in the final week.[102]

At the installation level, there is generally a long wait list for contracted building construction and maintenance work. Many facilities are in need of repair and some contracting professionals keep an informal list of projects listed by priority. Funding is often held until the end of the fiscal year and then released in large quantities once resource managers are certain it will no longer be needed to meet unforeseen emergencies. With this large end-year release of funds, contracting officers set about contracting for as much work as they can afford on their list.[103]

One side effect of this end-year construction surge is that contracting personnel must prepare a large number of solicitations and other documents to deploy as soon as funding is released. Because there is uncertainty about how much funding will be released, there is some guesswork involved in determining which projects to prepare for. This situation can lead to problems with contract quality. One contracting officer, speaking at the end of the fiscal year, acknowledged that "this time of year, instead of doing the A-plus contracting, we're doing the C contracting."[104]

Other Factors in End-Period Surges

All major types of DoD contracts show higher rates of obligation at end-year than in the rest of the year. Not all contract types, however, show the same degree of disparity. In FY 2017, 7.4 percent of all DoD contract dollars were obligated in the final week of September. By contrast, 9.8 percent of DoD's firm fixed-price contract obligations occurred in the final week.[105]

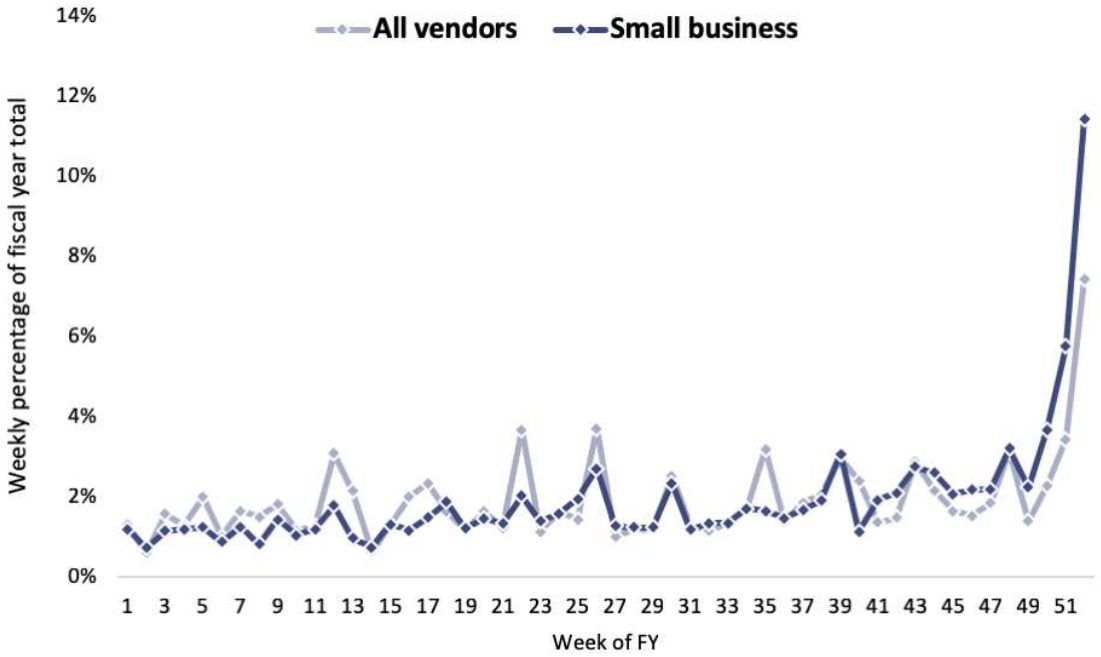
Fixed-price contracts allow for the obligation of a specific and fixed quantity of funds with a high degree of certainty. They may be highly useful to contracting officers who seek to obligate a set amount of money on a short timeframe to ensure full obligation by the end of a specific period.

Obligations on contracts awarded under small business or other socioeconomic policies also appear to be particularly concentrated at the end of the fiscal year.

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[101] Jeffrey B. Liebman and Neale Mahoney, *Do Expiring Budgets Lead to Wasteful Spending? Evidence from Federal Procurement,* National Bureau of Economic Research, September 2013, accessed April 26, 2017, http://www.nber.org/papers/w19481.pdf.
[102] Analysis of FPDS data extracted June 11, 2018.
[103] Installation contracting officials, conversation with Section 809 Panel, September 2017.
[104] Ibid.
[105] Analysis of FPDS data extracted June 11, 2018.

Figure 4-12. FY 2017 Weekly DoD Contract Obligations, as Percentage of Fiscal Year Total[106]



Summary Findings

A broad array of factors appears to affect, either directly or indirectly, DoD's pattern of contract obligations over the course of the fiscal year.

- These factors include the contracting component. The Department of the Army, for instance, shows much steeper end-year obligation surges than the other military departments. Senior Army leaders have indicated that they perceive these surges as a problem and are taking measures to mitigate them.

- Information technology contracts also show high end-year surges. There may be different root causes in different industries. With IT contracts, for example, hardware purchases may be delayed due to either short-term funding unavailability or due to the durability, interoperability, commercial availability, and continued utility of IT hardware years into the future.[107]

- With building construction and maintenance contracts, the large observed end-year surges may be more a product of inability to reprogram and long project wait lists.

Possible Effects on Acquisition Efficiency

DoD policymakers and independent observers have suggested that the incentives created by budget periodicity may diminish the efficiency of the defense acquisition process. By constraining DoD's

[106] Analysis of FPDS data extracted June 11, 2018. To ensure each period contains the same days of the week, Week 1 omits the first day of the fiscal year.
[107] One IT acquisition expert, discussing reasons why resource managers might wait until the last minute to make funding available, stated "because business IT is a bottom feeder." AT&L expert, emails with Section 809 Panel, September 2017.

ability to move money back and forth from one time-period category to another, the appropriation system may inhibit the flexibility of DoD contracting and program management.

Inability to move money from one time period to another may also reduce the negotiating leverage of PMs and contracting officers. Companies may, in some cases, put forth an artificially high bid simply because they know that a particular office has a short-term deadline by which they must obligate funds. One contracting officer claimed "I think there's a bit of inflation going on" with pricing of end-year awards.[108]

Another concern is that periodicity-based budgets may incentivize resource managers and acquisition professionals to hoard O&M money until the end of the fiscal year out of fear that they may be faced with a sudden and expensive emergency. Then as the end of the fiscal year nears, a *rush to spend* may include some projects that have been approved without sufficiently thorough review.[109] Former DoD Comptroller Robert Hale has written that end-year spending "pays for lower-quality and lower-priority projects."[110]

According to a 2013 study, for recent U.S. government information technology (IT) contracting projects there was a statistically significant correlation between funding obligated at the very end of the fiscal year and comparatively low contract quality.[111] A 2014 analysis suggested that rephasing could lead to "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."[112] A 2016 paper reiterated the "perceived pressure to spend resources at the end of the fiscal year to protect their budgets from cuts and… wasteful expenditures associated with that pressure."[113]

End-year spending also may affect the quality of the acquisition workforce. One contracting professional spoke of "kids running through the hallways" on Saturdays during the end of the fiscal year because employees were working overtime through the weekends and there were no on-base daycare services available.[114] High levels of employee stress are common and overtime compensation takes the form of additional vacation time, because no additional money is budgeted. In such an environment, recruitment and retention of high-quality workers proves challenging.

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[108] Installation contracting officer, conversation with Section 809 Panel, September 2017.
[109] One (possibly exaggerated) story told by a Navy Reserve acquisition officer claims that a former special operator working in a contracting office was signing contracts late at night on September 30, when the office's wall clock was about to reach midnight. The contracting officer allegedly took a Bowie knife from his office, stabbed it into the clock to prevent the minute hand from reaching the twelve, and returned to his desk to continue signing contracts. Regardless of the story's veracity, it illustrates that the budget periodicity-driven "use it or lose it" narrative is so broadly accepted that it has become the subject of jokes among military personnel.
[110] See Robert Hale, "Why DoD's Year-End Spending Needs to Change," *Breaking Defense*, September 23, 2016, http://breakingdefense.com/2016/09/why-dods-year-end-spending-needs-to-change, accessed April 26, 2017.
[111] Jeffrey B. Liebman and Neale Mahoney, *Do Expiring Budgets Lead to Wasteful Spending? Evidence from Federal Procurement,* National Bureau of Economic Research, September 2013, accessed April 26, 2017, http://www.nber.org/papers/w19481.pdf.
[112] Kathleen M. Conley et al., *Implications of DOD Funds Execution Policy for Acquisition Program Management,* Institute for Defense Analyses, August 2014, accessed April 27, 2017, www.dtic.mil/get-tr-doc/pdf?AD=ADA613958.
[113] Jason Fichtner and Adam Michel, *Curbing the Surge in Year-End Federal Government Spending: Reforming "Use It or Lose It" Rules – 2016 Update,* Mercatus Research, September 2016, 23, accessed September 11, 2017, https://www.mercatus.org/system/files/mercatus-fichtner-year-end-spending-v1.pdf.
[114] Installation contracting officer, conversation with Section 809 Panel, September 2017.

Conclusions

The preponderance of evidence suggests that (a) the incentives associated with budget periodicity lead directly to large surges in end-period contract obligations and (b) these surges lead to lower-quality or lower-efficiency contract outcomes. This situation raises concerns about the utility of budget periodicity as applied to DoD budgeting by Congress, OMB, and the DoD Comptroller, as well as in lower levels of DoD resource management.

When Congress limits DoD's contract obligations to specific date ranges via appropriation periodicity, it constrains DoD's ability to transfer funding across years, potentially limiting adaptability. It also may create incentives to obligate large amounts of money at the end of the fiscal year, which may result in lower contract quality.

The 80/20 rule, OMB apportionment processes, and DoD Comptroller rephasing create similar, smaller-scale incentives across quarters and months. These incentives, however, are all driven by the year-based periodicity structure of annual appropriations.

Proposed Solutions

Several measures have been proposed for addressing the end-year spending surges observed in DoD contracting. Some of these, however, may not fully address the underlying, root causes behind end-year spending surges. In some cases, they may in fact exacerbate those core problems.

Solutions that have been proposed (and, in some cases, implemented) include carryover budget authority, the 80/20 rule, *no-year money* (often described as *colorless*), working capital funds, biennial appropriations, and bonuses for cost-cutters.

80/20 Rule

The 80/20 rule specifies that for single-year appropriation accounts, no more than 20 percent of appropriated funds may be obligated in the final 2 months of the fiscal year (August and September). This rule has been incorporated into defense appropriation bills dating back to at least the 1950s.[115] Congress continues to regularly incorporate the 80/20 rule into defense appropriation bills.[116] In the FY 2018 appropriations law, citing the late date of enactment, Congress approved an increased flexibility for that year in the form of a 75/25 rule.[117]

Unintended Consequences of the 80/20 Rule

In 1980, when several variations of the 80/20 rule were under discussion in Congress, the Comptroller-General of the United States testified that adopting any of the proposed versions would result in

[115] See, for example, Section 625 of An Act Making appropriations for the Department of Defense for the fiscal year ending June 30, 1956, and for other purposes, Pub. L. No. 84-157 (1955).
[116] For the 80/20 Rule as it appeared in the FY 2017 omnibus appropriation, see Section 8004 of the Consolidated Appropriations Act, 2017, Pub. L. No. 115-31 (2017). "No more than 20 percent of the appropriations in this Act which are limited for obligation during the current fiscal year shall be obligated during the last 2 months of the fiscal year: Provided, That this section shall not apply to obligations for support of active duty training of reserve components or summer camp training of the Reserve Officers' Training Corps."
[117] Congressional Record Vol. 164, No. 50, Book II, Explanatory Statement for Pub. L. No. 115-141, March 22, 2018, Operation and Maintenance Flexibility, H2157, accessed June 8, 2018, https://www.congress.gov/crec/2018/03/22/CREC-2018-03-22-bk2.pdf.

constraints that were "difficult to administer" at the agency-level and failed to "address the real problem."[118]

The key concern is that the 80/20 rule specifically targets end-year spending surges, instead of the periodicity-based constraints that incentivize such surges. By requiring an agency to limit its August and September obligations to 20 percent or less, Congress by definition compels agencies to obligate at least 80 percent of appropriations in the preceding 10 months. In this way, the 80/20 rule may simply create a new, less noticeable obligation surge in July.

The 80/20 rule may, in fact, exacerbate the negative effects of periodicity-based budgeting. It not only adds a new constraining period in which funds must be obligated (the period from October to July), but also fails to address the initial constraining period of the regular fiscal year (from October to September).

The Comptroller General added in his 1980 testimony, however, that to "establish a sense of priority and clearly demonstrate that a change is needed," a temporary adoption of some version of the 80/20 rule would be "desirable."[119]

No-Year Money

With many of the annual defense appropriation accounts, Congress makes funding available to DoD for multiple years. The term *N-year* is colloquially used to refer to these periods of time. Procurement appropriations, for example, are made available for obligation during the three fiscal years following an appropriation law's enactment. They are informally described in the acquisition community as *3-year money*.

No-year appropriations are those without any time restrictions. A no-year appropriation may be accessed by an agency in any time period. This flexibility is generally indicated in law using the phrase "to remain available until expended" or "to remain available until transferred."[120] Unlike the 80/20 rule or other proposed constraints on periodicity, there is no concern that additional no-year appropriations would exacerbate end-year obligation surges. There is, however, concern that Congress would limit oversight capabilities if it made more no-year money available to DoD.

Oversight and Scope of No-year Money

Partly due to the challenges in applying oversight to no-year money, it is relatively uncommon in current appropriation law. The four main sections of the annual defense appropriations do not

[118] Comptroller-General of the United States Elmer B. Staats, *Federal Year-end Spending: Symptom of a Larger Problem,* October 23, 1980, accessed July 5, 2017, http://www.gao.gov/assets/140/130983.pdf.
[119] Ibid.
[120] For examples in the FY 2018 defense appropriation, see purchases under the Defense Production Act of 1950, for which $67 million was appropriated "to remain available until expended," or Army environmental restoration, for which $236 million was appropriated "to remain available until transferred." Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018).

typically contain no-year money. A notable exception is the O&M accounts, of which a small percentage has been granted no-year money status in recent appropriation laws.[121]

Other recurring no-year appropriations (such as Environmental Restoration, Defense Production Act Purchases, or several funding categories associated with the U.S. Merchant Marine Academy) tend to be limited in scope, targeted at a specific policy area, and sometimes represent constituencies of particular congressional interest.

For these reasons, it is uncertain whether no-year money is a scalable way of addressing the problems of budget periodicity.

Working Capital Funds

Working capital funds (WCFs) are budget tools intended to "control and account more effectively for the cost of programs and work performed in the Department of Defense."[122] Rather than annual appropriations, WCFs rely on a model akin to a commercial company, effectively selling goods and services to customers (other parts of DoD). Unlike a commercial company, a WCF is not intended to make a profit, but rather achieve zero net income in the long term.

WCFs are designed to receive funding primarily from other parts of DoD, not directly from appropriation bills.[123] Because a majority of the money they receive is indirectly appropriated, they are not subject to the same periodicity-based legal provisions as regular appropriations.[124] The core concept behind WCFs is to ensure full funding for support activities of appropriated fund programs by letting those programs buy what they need, "resulting in the support functions being only as big as the primary customers need them to be."[125] Support activities contracted through WCFs must "only be for a bona fide need of the period for which the ordering activity's financing appropriation is available."[126]

In recent years, Congress has shown an increasing interest in using WCFs and experimenting with different funding models to achieve acquisition objectives. In 2008, Congress created the Defense Acquisition Workforce Development Fund (DAWDF). Throughout the early 2010s, DAWDF primarily used indirectly appropriated funding, obtained through an effective tax on service contracts applied to DoD components.[127] In subsequent years, DAWDF was funded mainly through transfers of O&M

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[121] Under Section 8069 of the FY 2017 defense appropriation (Pub. L. No. 115-31), for example, the Army was permitted to retain $76 million of its Operation and Maintenance funding as no-year money, roughly 0.2 percent of the Army's total Operation and Maintenance appropriation for that year ($32.7 billion).
[122] Working-Capital Funds, 10 U.S.C. §2208(a).
[123] WCFs that have been authorized by law are explicitly permitted to use appropriated funds "for the purpose of providing capital." See Working-Capital Funds, 10 U.S.C. § 2208(d).
[124] For example, the Defense-Wide Working Capital Fund (DWWCF, comprising six activities managed under the Defense Logistics Agency, Defense Information Systems Agency, and Defense Finance and Accounting Service) disbursed a reported $42.1 billion in FY 2016 but received only $45.1 million in direct appropriations. DWWCF took in $42.4 billion in revenue that year. See DoD Comptroller, *Defense Working Capital Fund: Defense-Wide FY 2017 Budget Estimates, Operating and Capital Budgets,* February 2016, accessed July 12, 2017, http://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2017/budget_justification/pdfs/06_Defense_Working_Capital_Fund/PB17_DWWCF_Operating_Budget.pdf.
[125] Naval Postgraduate School budget professor, emails with Section 809 Panel, September 2017.
[126] DoD Financial Management Regulation, Volume 3, Chapter 8, Section 080901.
[127] See Section 852 of FY 2008 NDAA, Pub. L. No. 110-181 (2008).

funding for which normal obligational authority had expired.[128] The FY 2018 NDAA funded DAWDF via a direct, single-year appropriation of $500 million.[129]

In December 2017, the Modernizing Government Technology Act of 2017 (MGT Act) was enacted into law as part of the FY 2018 NDAA. The MGT Act created a WCF dedicated to funding the modernization of government IT upgrades.[130]

Biennial Appropriations

Biennial budgeting is a separate and distinct concept from the 2-year budget cycle on which some DoD appropriations accounts operate (such as RDT&E). In existing RDT&E accounts, appropriations are made every year, but are legally accessible for 2 years (although observers have noted that RDT&E funding is not, in effect, available for more than a single year at the program level).

In a biennial budget cycle, appropriations would be made every 2 years and made available for obligation under the same system of periodicity that currently exists. It would essentially be the same appropriation process Congress uses today, but drawn out over 2 years instead of just one.

Proponents of biennial appropriations advocate for this change arguing it would eliminate the need for repeated congressional review of routine spending issues every year.[131] By encouraging the development of spending strategies on a 2-year timeframe rather than a one-year timeframe, biennial appropriations could also allow for longer-term thinking by ground-level acquisition professionals. A downside to biennial appropriations is that Congress and DoD would lose flexibility to adjust amounts in the second year.

Because it would have little or no effect on the annual cycle of appropriation availability, biennial appropriations may not be an ideal way of addressing the skewed incentives related to periodicity in the DoD acquisition budget.

Cash Bonuses for Reporting Waste

Another proposal for addressing periodicity-based budget constraints involves awarding incentive payments to government employees who identify wasteful spending. Several legislators have supported such an idea in recent years in various versions of a Bonuses for Cost-Cutters Act.[132]

An incentive payment system would have the advantage of directly targeting wasteful spending, rather than end-period spikes themselves. This approach would presumably address the concern that other solutions may focus on symptoms instead of root problems.

To make such a system effective, however, several concerns would need to be addressed. One potential problem is that employees could find themselves incentivized to adopt overly-generous definitions of

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[128] GAO, *Defense Acquisition Workforce: DOD Has Opportunities to Further Enhance Use and Management of Development Fund, GAO-17-332,* March 2017, 9, accessed July 30, 2018, https://www.gao.gov/asset/690/683748.pdf.
[129] Division C, Title II (Operation and Maintenance) of the Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018).
[130] See Title X, Subtitle G of FY 2018 NDAA, Pub. L. No. 115-91 (2018), 304.
[131] Jessica Tollestrup, *Biennial Budgeting: Options, Issues, and Previous Congressional Action,* Congressional Research Service, February 2, 2015, accessed November 4, 2018, https://fas.org/sgp/crs/misc/R41764.pdf.
[132] See, for example, the Bonuses for Cost-Cutters Act of 2017, H.R. 378, introduced January 9, 2017.

what constitutes waste in the hope of a cash bonus. Another potential problem could be misaligned incentives and counterproductive friction between program leadership and lower-level employees.[133]

Carryover Authority

Carryover refers to the practice of permitting annual appropriations to be used in the subsequent year or years. Carryover is also sometimes referred to as *rollover* or *carry forward* authority.

Upward Adjustment Carryover Authorities

DoD is permitted to engage in a limited form of carryover in accordance with OMB Circular A–11, which states that "you may adjust apportioned amounts upwards without submitting a reapportionment request by up to $400,000 or 2 percent of the amount of total budgetary resources, whichever is lower, to reflect upward adjustments in the amount of unobligated balances brought forward."[134]

DoD's Financial Management Regulation provides greater detail on this *upward adjustment* capability: "All accounts which must be apportioned must also be reapportioned for any upward adjustment of budgetary resources greater than $400,000 or 2 percent (whichever is less) before the increased resources may be obligated. The unobligated balances brought forward in unexpired accounts must also be reapportioned annually… Expired accounts are not apportioned. Transfer-only accounts are exempt from apportionment."[135]

GAO characterizes expired balances as remaining available "to make legitimate obligation adjustments, that is, to record previously unrecorded obligations and to make upward adjustments in previously under recorded obligations."[136]

Full Unlimited Carryover

Unlimited, full carryover for an entire appropriation account could result in an unacceptable degradation of the legislature's oversight capabilities. It would also almost certainly prove politically unfeasible. Congress could choose, however, to apply a variety of conditions through which carryover authority could provide programs with needed flexibility while still allowing for robust oversight by appropriators.

Conditional Carryover

There are several ways in which legislators could mitigate concerns about weaker oversight capacity by applying added conditions and constraints to carryover authority. A 2009 paper published by the

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[133] Jason Fichtner and Adam Michel, *Curbing the Surge in Year-End Federal Government Spending: Reforming "Use It or Lose It" Rules – 2016 Update,* Mercatus Research, September 2016, 23, accessed September 11, 2017, https://www.mercatus.org/system/files/mercatus-fichtner-year-end-spending-v1.pdf.
[134] OMB Circular No. A–11, Part 4: Instructions on Budget Execution, Section 120.49, accessed June 27, 2017, https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a11_current_year/s120.pdf.
[135] DoD Financial Management Regulation, Volume 3, Chapter 2: Apportionment/Reapportionment and Funds Distribution, Section 020202: Accounts Requiring Reapportionment."
[136] GAO, *Principles of Federal Appropriations Law, Third Edition, Volume I, GAO-04-261SP,* January 2004, 5-72, accessed June 27, 2017, https://www.gao.gov/assets/210/202437.pdf.

International Monetary Fund provides a detailed overview of several ways in which limitations could be applied to DoD carryover authority.[137]

One option would be capping the amount that could be carried over in each year at a relatively small percentage of annual appropriations. This option would ensure that acquisition officials were incentivized to obligate nearly all of the annual funding appropriated by Congress, but with a small amount of flexibility in case some funds could not be obligated usefully by September 30.

Another option would be to impose a cap on the total unobligated funds permitted to accumulate in the carryover account, rather than the annual carryover amount. Stakeholders in Congress and DoD might find this constraint desirable to address the prospect (either real or perceived) of a carryover account growing into a *slush fund* over time.[138]

These conditions applied to carryover authority would not be mutually exclusive. If Congress were to grant carryover flexibilities to DoD or other agencies, it could choose to concurrently adopt all or none of these constraints.

Carryover in Practice

In recent years' defense appropriations, Congress has approved a small, 1-year, carryover authority for O&M spending by the Defense Health Program (DHP). The purpose of this carryover was to facilitate the execution of DHP's large drug and medical services indefinite-quantity contracts, for which precise obligations cannot be predicted to the date due to varying patient and facility needs.[139]

Some DoD acquisition personnel strongly advocate for a form of departmentwide carryover, claiming that it could reduce program budgets substantial amounts. One illustrative example recounted by an acquisition professional involved a program's purchase of computer hardware earlier than needed due to appropriation constraints: "If such funding could be carried several months deeper into the program, better equipment could be purchased at lower cost."[140]

Carryover in State Governments

According to analysis by the National Association of State Budget Officers, more than half of U.S. state governments practiced some form of carryover as of 2015.[141] These state-level carryover practices vary in size and scope. South Carolina, for example, permits relatively broad carryover authority. Agencies are authorized to carry forward up to 10 percent of their annual appropriation to the following fiscal

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[137] Ian Lienert and Gösta Ljungman, *Carry-Over of Budget Authority,* International Monetary Fund, Fiscal Affairs Department, January 2009, accessed July 12, 2017, http://blog-pfm.imf.org/files/carry-over-of-budget-authority.pdf.

[138] In the past, carryover measures and similar budgeting flexibility measures have been permitted to exist for periods of time, but eventually characterized as "slush funds" after accumulating sufficiently large unobligated balances. The history of congressional concern over "slush funds" at DoD goes back several decades, spurred in many cases by flexibility authorities similar to carryover. See, for example, Senator Alfonse D'Amato's 1985 letter to the U.S. Comptroller General on this issue and the accompanying report: Comptroller General of the United States, *Potential for Excess Funds in DOD, GAO/NSIAD-85-145,* September 3, 1985, accessed June 27, 2017, http://archive.gao.gov/d11t3/127859.pdf.

[139] Defense Health Agency personnel, conversation with Section 809 Panel, October 2017.

[140] Naval Air Systems Command personnel, communication with Section 809 Panel, September 2017.

[141] National Association of State Budget Officers, *Budget Processes in the States, Spring 2015,* Table 17: Unspent Appropriations, 92, accessed November 4, 2018, https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/Budget%20Processess/2015_Budget_Processes_-_S.pdf.

year.[142] In Hawaii, however, only the department of education is granted carryover authority, and it is limited to no more than 5 percent of each annual appropriation.[143]

States that have adopted carryover laws report positive experiences, with one Washington state budget official reporting that the state's carryover law definitely resulted in more efficient agency purchases.[144] Washington, however, encountered a problem that could eventually affect DoD if Congress opted to grant DoD some form of carryover authority. In the wake of economic downturn and the resulting exogenous fiscal constraints, there was a strong incentive for Washington state lawmakers to locate and use unspent funds within agencies. Perhaps for this reason, shortly after the start of the late-2000s global financial crisis, the legislature repealed Washington's carryover authority.

Some states, such as California, also practice both multiyear and no-year appropriations on a limited scale.[145]

Carryover in Foreign Governments

Many foreign governments practice some form of carryover in their budgeting systems. The International Monetary Fund (IMF) suggests that carryover provisions are best-suited for countries with high-quality rule of law and institutional development, where "the prime objective is ensuring the most efficient and effective use of government resources."[146]

Table 4-4. Carry-Over Authority in Selected Countries[147]

Country	Carryover Authority
United States	Carryover requires specific legislative approval, multiyear appropriations in some cases
Canada	Maximum threshold and approval required
Mexico	None
United Kingdom	Maximum threshold and approval required
France	Maximum threshold and approval required, exceeding thresholds subject to approval

[142] South Carolina Comptroller General, *State of South Carolina Policy for Use of Purchasing/Payment Document Type,* June 30, 2016, accessed July 5, 2017, http://www.cg.sc.gov/guidanceandformsforstateagencies/Documents/CGsAPP/06-30-16/POLICYONUSEOFPURCHASEORDERSANDDIRECTEXPENDITURES_%206-30-16.pdf.
[143] "About State Budgeting," State of Hawai'i Department of Budget and Finance, accessed July 5, 2017, http://budget.hawaii.gov/budget/about-budget.
[144] Washington State budget official, discussion with Section 809 Panel, June 2017.
[145] See California Department of Finance, *Finance Glossary of Accounting and Budgeting Terms,* accessed July 5, 2017, http://www.dof.ca.gov/budget/CA_budget_information/budget_faq/GlossaryofBudgetTerms.pdf. "Appropriations made by the Budget Act are available for encumbrance for one year, unless otherwise specified. Appropriations made by other legislation are available for encumbrance for three years, unless otherwise specified, and appropriations stating 'without regard to fiscal year' shall be available from year to year until fully expended."
[146] "Guidelines for Public Expenditure Management, Section 4: Budget Execution," International Monetary Fund, accessed July 5, 2017, https://www.imf.org/external/pubs/ft/expend/guide4.htm.
[147] Data based on responses to 2012 OECD survey question "for discretionary spending, can line ministers carry over unused funds or appropriations from one year to another?" See "About the International Budget Practices and Procedures Database," Organisation for Economic Cooperation and Development, accessed July 5, 2017, http://qdd.oecd.org/subject.aspx?Subject=7F309CE7-61D3-4423-A9E3-3F39424B8BCA.

Country	Carryover Authority
Germany	2-year carryover allowed, subject to restrictions
Spain	Maximum threshold and approval required
Italy	None
Norway	Maximum threshold and approval required
Sweden	Maximum threshold and no approval required, exceeding thresholds subject to approval
Greece	None
Israel	No threshold and no approval required
Japan	No threshold but approval required
Korea	Carryover requires specific legislative approval
Australia	Appropriations do not lapse at end of year

Difficult Trade-offs

Congress faces difficult trade-offs in determining how to address this issue. If legislators chose to decentralize budget authority among lower-level decision makers (for instance, by allowing PMs and contracting officers greater access to no-year money) the result could limit oversight capabilities.

If Congress opted to pursue alternative forms of the current periodicity-based budget system (for example, switching to biennial appropriation cycles) the effect might be limited. The incentives that cause obligation surges will not be erased by simply switching federal appropriations to a 2-year cycle instead of a 1-year cycle, as some members of Congress have proposed in recent decades.[148]

If Congress opted to provide cash bonuses as a reward for government employees who identified waste, it could lead to mismatched goals between program management and staff, as well as other unintended issues.

If Congress and other decision makers chose to directly target end-year obligation surges (for instance, by imposing a monthly percentage cap on DoD contract obligations, essentially a much more rigorous version of the 80/20 rule) it would likely eliminate the distorted annual spending patterns seen in acquisition data. It would, however, represent an additional incentive for acquisition personnel to prioritize timing over contract quality. In this way, such an approach might simply address symptoms rather than problems.

[148] For examples of members of Congress who have supported biennial appropriations, see Jessica Tollestrup, *Biennial Budgeting: Options, Issues, and Previous Congressional Action,* Congressional Research Service, February 2, 2015, accessed November 4, 2018, https://fas.org/sgp/crs/misc/R41764.pdf.

Problem Complexity

Effectively addressing the perverse incentives created by periodicity-based budgeting requires acknowledgment of the problem's complexity. There are many stakeholders involved in DoD acquisition budgeting. They include U.S. taxpayers, congressional authorizers, congressional appropriators, OMB, DoD functional sponsors, the DoD acquisition community, the DoD resource management community, and the defense contractor community. It may not be possible to develop a budgeting mechanism that could appease all these groups' interests while also allowing DoD to flexibly allocate funding where and when it is needed.

Even if all stakeholders were to reach a mutually acceptable solution, there would be trade-offs involved in switching to a more flexible budgeting system. Periodicity-based budgeting may allow for flexibility to changing economic conditions. In other words, if an unexpected recession occurs, appropriators have the option to respond with immediate cuts to defense spending. This type of fiscal flexibility might be less feasible if, for example, DoD retained more of its spending authority from prior years through carryover provisions.

Greater flexibility of DoD's acquisition budget authority across time periods would likely increase the efficiency and effectiveness of contract spending within those time periods. Such changes would also preserve Congress's ability to determine the total, long-term dollar amount spent on individual DoD components, appropriation titles, or programs. They would, however, limit Congress's ability to modify how much is spent within specific periods of time. Many in Congress clearly view this ability as a core aspect of the oversight process.

Best Solution

As demonstrated above, there may be no perfect solution to the problematic incentives created by periodicity-based budgeting constraints. The most appropriate way of mitigating end-period spending surges, however, would be to create a mechanism allowing for a small percentage of single-year funding to cross fiscal years. Such a mechanism could be accomplished by allowing the obligation of up to 5 percent of O&M funding for 1 year beyond what would normally be the end of its availability. This approach would allow for a smoothing effect across fiscal years, mitigating the perceived urgency to spend all available funds by end-year by creating a funding bridge across fiscal years, allowing for DoD's single-year funding accounts to more easily meet the legislature's antideficiency and impoundment control requirements.

Implementation

Note: The Section 809 Panel considered many congressional options for addressing periodicity problems, including multiyear appropriations, cash bonuses for waste reporting, and increasing the rigor of the 80/20 rule. There are problems associated with each of these options. For this reason, the panel recommends congressional approval of a simple, small-percentage carryover authority for DoD's O&M accounts. This proposal offers the best opportunity to deal with periodicity-related problems as a first step.

Legislative Branch

- Permit 5 percent of appropriated O&M funding to be obligated up to 1 year beyond what would normally be the end of their availability for obligation. This change would fall within the

jurisdiction of the appropriations committees. It would likely be implemented via the addition of standard *to remain available for obligation until* language to the Operation and Maintenance title accounts in a regular defense appropriations law.

Executive Branch

- Modify business processes, financial management defense business systems, and acquisition policies to extend funding availability for the congressionally authorized percentage of the O&M accounts.

- Current policies for obligating Defense Health Program funding may be used as a template. Congress regularly grants Defense Health Agency a one-year capped carryover on 1 percent of each year's O&M funds.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- The proposed carryover pilot programs could serve as a model for acquisition budget reform in other agencies.

RECOMMENDATIONS 50 THROUGH 54 SHARE THE COMMON THEME: CONTINUING RESOLUTIONS

Under the *regular appropriations* process, Congress enacts about a dozen annual laws prior to the beginning of the fiscal year on October 1. Each of these laws appropriates funding for a predefined group of agencies or functional portfolios.[149]

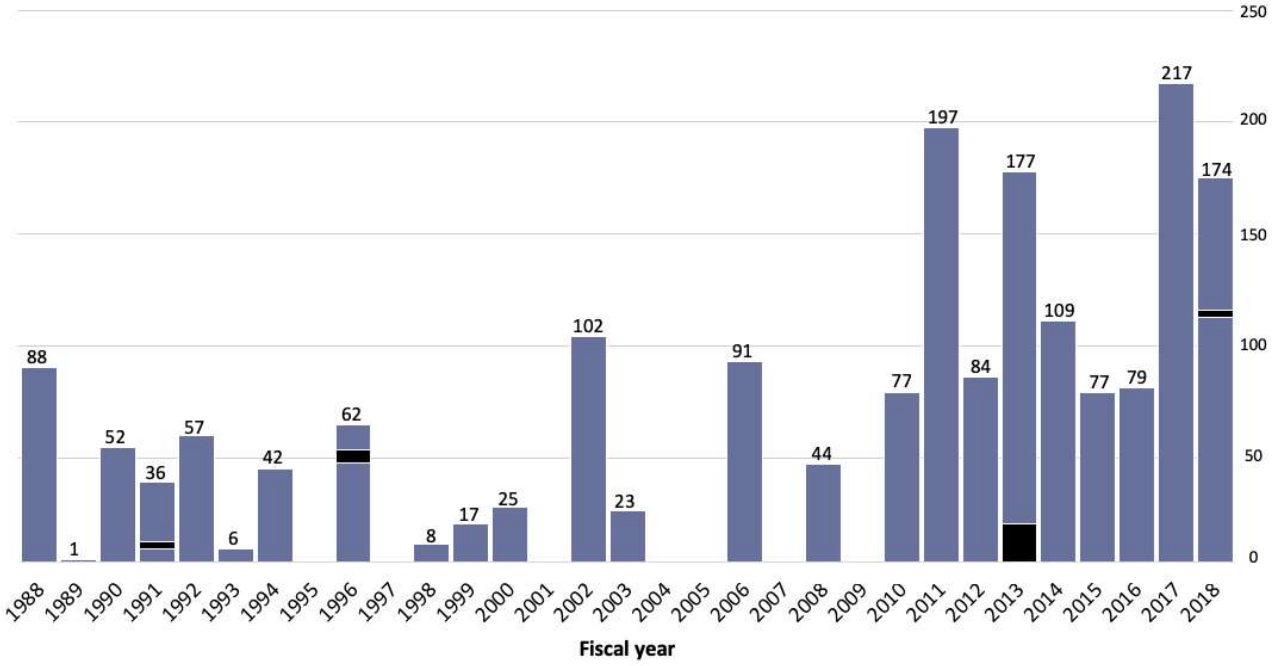
Three regular appropriations bills account for most of DoD's annual budget. The *Department of Defense* appropriations bill contains the majority of annual funding appropriated for DoD. Military construction funding is appropriated via the *Military Construction and Veterans Affairs* bill. Army Corps of Engineers civil program funding is appropriated via the *Energy and Water Development and Related Agencies* bill.

In the past 2 decades, there have been only 5 fiscal years in which regular *Department of Defense* appropriations bills were enacted prior to September 30.[150] Despite being funded by continuing resolutions (CRs) less frequently than other agencies, it could be argued that DoD's mission is affected by CRs to a greater extent. The annual duration for which Congress requires DoD to operate under a CR appears to be increasing (see Figure 4-13).

[149] For an overview of the basics of appropriations law, see "Principles of Federal Appropriations Law" (the so-called "Red Book"), GAO, accessed March 6, 2018, https://www.gao.gov/legal/red-book/overview.
[150] Section 809 Panel analysis of *Congress.gov*, "Appropriations and Budget," accessed July 7, 2017.

DoD is funded via CRs slightly less often than the rest of the government. In the 4 decades from FY 1978 to FY 2018, there were only 3 years in which CRs were not used to fund at least one federal agency: FY 1989, FY 1995, and FY 1997.[151]

Figure 4-13. Number of Days During Which DoD Operated under CRs (Government Shutdowns in Black)[152]



The Budget Control Act of 2011 (BCA) imposes caps on discretionary defense-related spending.[153] In addition to adding its own restrictions on defense acquisition spending, BCA's defense caps may increase the likelihood or duration of defense CRs by imposing artificial constraints on Congress, exacerbating the difficulty of making decisions on competing priorities.[154]

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[151] Jessica Tollestrup and James Saturno, *Continuing Resolutions: Overview of Components and Recent Practices,* Congressional Research Service, January 14, 2016, accessed November 4, 2018, https://fas.org/sgp/crs/misc/R42647.pdf. The FY 1989 regular appropriations bill was officially signed into law by the President on October 1 (a Saturday), but was passed by both House and Senate prior to midnight on September 30, 1988. See "H.R. 4781 - Department of Defense Appropriations Act, 1989, Actions Overview" Congress.gov accessed January 23, 2018, https://www.congress.gov/bill/100th-congress/house-bill/4781/actions.

[152] Dates from 1998 to present based on Section 809 Panel analysis of *Congress.gov*, "Appropriations and Budget," accessed July 7, 2017. Dates prior to FY 1998 based on Section 809 Panel analysis of *Department of Defense* appropriations law texts from Government Publishing Office.

[153] Budget Control Act of 2011, Pub. L. No. 112-25 (2011). BCA caps apply not to DoD specifically but to a "revised security category" defined in Section 302 of the law. This category includes most discretionary DoD expenditures, Department of Energy nuclear functions, and certain non-DoD antiterrorism functions. The category does not include mandatory DoD spending or overseas contingency operations. These caps were amended by Pub. L. No. 112-240 (the American Taxpayer Relief Act of 2012), Pub. L. No. 113-67 (the Bipartisan Budget Act of 2013), and Pub. L. No. 114-74 (the Bipartisan Budget Act of 2015).

[154] The BCA works by triggering across-the-board funding cuts in the event that discretionary funding accounts are appropriated above a preset amount in a given year. The BCA's caps are constraints that Congress imposes on itself, and it regularly modifies them when it wishes to appropriate funding above the mandated level for a given year. Congress has modified the BCA's caps via legislation enacted in January 2013, December 2013, November 2015, and February 2018. See Grant Driessen and Megan Lynch, *The Budget Control Act: Frequently Asked Questions,* Congressional Research Service, February 23, 2018, 11, accessed November 4, 2018, https://fas.org/sgp/crs/misc/R44874.pdf.

Several constraints generally apply to DoD while the organization is operating under a CR. For example, in the first of several CRs used to fund the government in FY 2018, Section 102(a) prohibited using funds for "new production of items not funded for production in fiscal year 2017 or prior years."[155] Congress regularly incorporates such spending limits, popularly known as *new start* prohibitions, into CRs.[156] CRs also regularly restrict DoD's ability to enter into *production rate increases* and initiate *multiyear procurement contracts*.[157] These restrictions are incorporated into both appropriations laws and DoD financial regulations.[158]

Sometimes CRs include exemptions that allow DoD to bypass the new start prohibition and other constraints of a CR. These exemptions are popularly known as *anomalies* and may be used to fund items of particular interest to Congress or items that are deemed crucial to national security.[159] For example, in the third CR through which the government was funded in FY 2018, $673.5 million was appropriated to fund repairs to two Navy ships that suffered high-profile collisions in 2017. About $3.8 billion was appropriated to fund missile defense via appropriations accounts normally found in NDAAs. A further $200 million was appropriated to fund construction of a missile field in Alaska.[160]

In anticipation of CR enactment, DoD typically sends a list of anomaly requests, compiled with input from the Military Services and Defense Agencies, to OMB. OMB may forward this list to the congressional appropriations committees, which may choose to include or omit the anomalies in the text of CRs to be considered by Congress.

Anecdotally, DoD officials maintain that convincing the DoD Comptroller to submit a given anomaly request to OMB is extremely difficult. One retired official stated that within DoD's internal process, the anomaly request process is "lengthy and contentious" and "lots of important programs are not included in favor of a few 'must haves.' "[161]

A former DoD Comptroller official said that during his time with DoD, the "DoD Comptroller did not accept anomalies mainly because of guidance from OMB or Hill staff."[162] According to the official, both

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[155] Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017, Pub. L. No. 115-56 (2017). The full provision reads: "No appropriation or funds made available or authority granted pursuant to section 101 for the Department of Defense shall be used for: (1) the new production of items not funded for production in fiscal year 2017 or prior years; (2) the increase in production rates above those sustained with fiscal year 2017 funds; or (3) the initiation, resumption, or continuation of any project, activity, operation, or organization (defined as any project, subproject, activity, budget activity, program element, and subprogram within a program element, and for any investment items defined as a P-1 line item in a budget activity within an appropriation account and an R-1 line item that includes a program element and subprogram element within an appropriation account) for which appropriations, funds, or other authority were not available during fiscal year 2017."

[156] In many documents published by DoD, Congress, OMB, and other organizations, the most commonly-used phrase is "new start." In the text of most continuing resolutions, however, the term "new production" is used. In this paper, these terms are used interchangeably.

[157] For example, Pub. L. No. 115-56 Section 102(b) reads: "No appropriation or funds made available or authority granted pursuant to section 101 for the Department of Defense shall be used to initiate multi-year procurements utilizing advance procurement funding for economic order quantity procurement unless specifically appropriated later." Under a regular appropriations act, DoD is permitted to enter into multiyear contracts for the procurement of property and services under 10 U.S.C. § 2306b and 10 U.S.C. § 2306c.

[158] Financial Management Regulation Volume 3, Chapter 6, Section 060401(E), accessed February 23, 2018, http://comptroller.defense.gov/Portals/45/documents/fmr/Volume_03.pdf.

[159] Lynn Williams and Jennifer Roscoe, *Defense Spending Under an Interim Continuing Resolution: In Brief,* Congressional Research Service, December 26, 2017, accessed November 4, 2018, https://fas.org/sgp/crs/natsec/R44636.pdf. .

[160] Third Continuing Appropriations for Fiscal Year 2018, Pub. L. No. 115-96 (2017).

[161] Retired deputy assistant secretary, discussions with Section 809 Panel, February 2018.

[162] Former DoD Comptroller official, discussion with Section 809 Panel, March 2018.

OMB and appropriations committee staff frequently "made clear that only anomaly-free CRs were of interest, making it a waste of time to work the anomalies."[163]

If the Comptroller does include a given anomaly in the OMB request, OMB is reportedly unlikely to submit the request to appropriators. According to one former OMB official, "OMB hates policy anomalies" and "routinely denies" them.[164]

Congressional use of anomalies may mitigate some of the more high-profile problems that occur when DoD is under CR funding. The use of anomalies, however, will not address needs that do not rise to the level of congressional visibility.

In addition to the new start and related prohibitions, CRs produce negative effects on the contracting process. When a long CR is in effect and congressional activity indicates a future increase in funding levels, contracting personnel may face a situation in which they are expected to put large amounts of money on contract but lack the legal authority to do so until the end of the fiscal year. This situation can create frantic rushes and enormous workloads at the end of the year—a time that, even without CRs, can be chaotic for many contracting offices.[165]

Under CRs, contracting officers often lack needed authority to enter into long-term contract extensions. Consequently, they may need to enter into short-term bridge contracts to ensure continued delivery of critical services until the enactment of a regular appropriations bill.[166] Because of the uncertainty vendors face under these short-term bridge contracts, they may be higher-cost than more long-term contracts.

There is a near-universal view that the uncertainties and disruptive timetables associated with CRs increase costs and harm DoD's ability to efficiently operate its acquisition system.

DoD Leadership

Then-Secretary of Defense James Mattis stated in February 2018 testimony that if Congress should "stumble into a yearlong continuing resolution," the military would, among other consequences:

- Fail to balance ship operations and port maintenance.
- Ground aircraft due to a lack of maintenance and spare parts.
- Deplete ammunition, training, and manpower that currently serve as war deterrents.
- Delay contracts for acquisition programs that are necessary for military modernization.[167]

Secretary Mattis said in January 2018, "No enemy in the field has done more to harm the readiness of the U.S. military than the combined effect of the Budget Control Act's defense spending cuts, worsened

[163] Former DoD Comptroller official, discussion with Section 809 Panel, March 2018.
[164] "Pentagon sends White House detailed list of budget priorities threatened by Capitol Hill stalemate," Tony Bertuca (quoting Mark Cancian), Inside Defense, September 11, 2017, accessed February 23, 2018, https://insidedefense.com/share/189868.
[165] Contracting office personnel, meetings with Section 809 Panel, September 2017.
[166] Former DoD Comptroller official, discussions with Section 809 Panel, March 2018.
[167] House Armed Services Committee, *Secretary of Defense Jim Mattis: Written Statement for the Record,* February 6, 2018, accessed February 7, 2018, http://docs.house.gov/meetings/AS/AS00/20180206/106833/HHRG-115-AS00-Wstate-MattisJ-20180206.pdf.

by operating 9 of the last 10 years under continuing resolutions, wasting copious amounts of precious taxpayer dollars."[168]

Secretary Mattis testified before Congress in 2017 that CRs "result in a steady erosion of military readiness" and inhibit "adaptation to new challenges."[169] He focused on acquisition of newer and more innovative weapons systems in his comments, stating that "rapid technological change… necessitates new investment, innovative approaches, and when necessary, new program starts that have been denied us by law when we have been forced to operate under Continuing Resolutions."[170]

With respect to military construction contracts, Secretary Mattis wrote that in FY 2018 alone, CRs would cause "an inevitable delay in project schedules and potential increased costs" for 91 construction projects across the three military departments.[171]

During the Obama administration, then-Secretary Ashton Carter characterized Congress's reliance on CRs as "a deplorable state of affairs," adding that CRs force DoD to commit "the obvious mistake of having us do this year exactly what we did last year, despite the fact that we're trying to evolve and innovate to stay ahead in a changing world."[172]

Secretary Carter elaborated that the budget instability created by CRs "emboldens our foes," is "strategically unsound," is "dispiriting to our troops," and adds unnecessary inefficiencies to the defense industrial base.[173] He described CRs as "one of the greatest threats to American security," specifically pointing to Navy shipbuilding as an area for which CRs diminish warfighting capability, because ship funding is appropriated on an individual-program basis.[174]

DoD leaders have also noted the negative effects of CRs on the defense acquisition workforce because they deter hiring, impede the funding of much needed training, and create anxiety among a vulnerable civilian workforce. Even a 3-month CR "leaves critical gaps in the workforce skill set and causes unnecessary angst among military and civil servants, making the government a far less attractive option to the highest-skilled potential candidates."[175]

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[168] "Defense Secretary Mattis Tells Congress Pentagon Needs Budget Predictability," C-SPAN, January 19, 2018, accessed same date, https://www.c-span.org/video/?c4709963/defense-secretary-mattis-tells-congress-pentagon-budget-predictability.
[169] Senate Armed Services Committee, *Secretary of Defense Jim Mattis: Written Statement for the Record,* June 13, 2017, accessed July 7, 2017, https://www.armed-services.senate.gov/imo/media/doc/Mattis_06-13-17.pdf.
[170] Ibid.
[171] James Mattis, *Impacts of a Continuing Resolution Authority in Fiscal Year 2018* (letter to Senate Armed Services Committee), September 8, 2017. The letter specifically cited schedule delays and cost increases to 37 Navy projects, 16 Air Force projects, and 38 Army projects.
[172] Senate Armed Services Committee, *Secretary of Defense Ash Carter: Statement on "U.S. National Security Challenges and Ongoing Military Operations,"* September 22, 2016, accessed July 7, 2017, https://www.armed-services.senate.gov/imo/media/doc/Carter_09-22-16.pdf.
[173] Ibid.
[174] Ibid.
[175] James Mattis, *Impacts of a Continuing Resolution Authority in Fiscal Year 2018* (letter to Senate Armed Services Committee), September 8, 2017. Some have suggested that, because DoD leadership anticipates CRs through the first quarter, 3-month CRs do not cause major problems. According to one retired DoD Comptroller official, "Generally major contracts do not come up for renewal during first couple of months of new year because of concerns about CRs. The big problems occur when CRs extend into the new calendar year" (in other words, past January 1). Former DoD Comptroller official, emails to Section 809 Panel, March 2018.

Army Leadership

Army Chief of Staff GEN Mark Milley said in 2017 that because of CRs, the Army's "procurement efforts currently on hold will remain on hold."[176] He added that CRs would create "operational delays in procurement and research across the Army" and cause "further degradation of Army readiness in both the current and future fiscal years."[177]

Air Force Leadership

In 2017 testimony, Air Force Chief of Staff Gen David Goldfein stated that CRs and other funding laws have "critically challenged" the Air Force's ability to "improve readiness, modernize our force, and invest in research and development to maintain decisive advantages over near-peer competitors."[178]

Vice Chief of Staff Gen Stephen Wilson reportedly said in early 2018 that a yearlong CR would cause about $1.5 billion in damage.[179]

Navy Leadership

In 2017, Secretary of the Navy Richard Spencer provided a concrete estimate of the dollar costs associated with CR-related inefficiencies.

> *CRs have cost the Department of the Navy roughly $4 billion. Since 2011, we have put $4 billion in a trashcan, put lighter fluid on top of it, and burned it… enough to buy a squadron of F-35, two Arleigh-class destroyers, 3,000 Harpoon missiles… Instead, that $4 billion of taxpayers' money was lost because of inefficiency of the ways of the continuing resolution.*[180]

Testifying at a 2016 congressional hearing, Chief of Naval Operations ADM John Richardson stated that CRs "have driven additional cost and time into just about everything we do."[181] He added that due to CRs, "nobody schedules anything important in the first quarter" and the resulting uncertainty "translates directly into risk to our Navy and our nation."[182]

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[176] U.S. House of Representatives, *Statement by General Mark A. Milley, Chief of Staff United States Army, before the Committee of Armed Services on Consequences to the Military of a Continuing Resolution,* April 5, 2017 accessed September 25, 2017, https://docs.house.gov/meetings/AS/AS00/20170405/105832/HHRG-115-AS00-Wstate-MilleyM-20170405.pdf.
[177] Ibid.
[178] U.S. House of Representatives, *Statement of General David L. Goldfein, Chief of Staff of the Air Force, to the Committee on Armed Services on Impacts of a Year-Long Continuing Resolution,* April 5, 2017, accessed September 25, 2017, http://docs.house.gov/meetings/AS/AS00/20170405/105832/HHRG-115-AS00-Wstate-GoldfeinD-20170405.pdf.
[179] "$1.5 Billion-Plus Hit on USAF from Yearlong CR, Contract Delays Baked In," John A. Tirpak, Air Force Magazine, January 12, 2018, accessed January 22, 2018, http://www.airforcemag.com/Features/Pages/2018/January%202018/One-Point-Five-Billion-Plus-Hit-on-USAF-from-Yearlong-CR-Contract-Delays-Baked-In-.aspx.
[180] U.S. Navy, *Secretary of the Navy Richard V. Spencer, USNI Defense Forum Washington,* December 4, 2017, accessed January 22, 2018, http://www.navy.mil/navydata/people/secnav/Spencer/Speech/Remarks%20by%20the%20Honorable%20Richard%20V.%20Spencer,%20USNI%20Defense%20Forum.pdf.
[181] "Service Chiefs: Budget Uncertainty, Funding Levels are Biggest Challenges," Cheryl Pellerin, DoD News, Defense Media Activity, September 15, 2016, accessed September 25, 2017, https://www.defense.gov/News/Article/Article/945964/service-chiefs-budget-uncertainty-funding-levels-are-biggest-challenges.
[182] "Service Chiefs: Budget Uncertainty, Funding Levels are Biggest Challenges," Cheryl Pellerin, DoD News, Defense Media Activity, September 15, 2016, accessed September 25, 2017, https://www.defense.gov/News/Article/Article/945964/service-chiefs-budget-uncertainty-funding-levels-are-biggest-challenges.

At the same hearing, Commandant of the Marine Corps Gen Robert Neller said that CRs have led to insufficient readiness in "aviation, facilities sustainment, future modernization, retention of critical skills and building the depth on our ready bench forces at home."[183]

Congressional Perspectives

Many members of Congress appear to be in bipartisan agreement with DoD's assessments. Former Senate Armed Services Committee (SASC) Chairman John McCain characterized national defense as being "held hostage to domestic political disputes totally separated from the reality of the threats we face," and called for departing from "budget-driven strategy," instead returning to "strategy-driven budget."[184] Then-Chairman McCain and SASC Ranking Member Jack Reed signed a joint letter in 2017 noting "negative impacts of starting each fiscal year on a continuing resolution."[185] Former SASC Chairman Carl Levin has characterized long-term CRs as "a huge and unconscionable problem" that not only undermined national defense but also had "a negative impact…on morale and retention."[186]

Former House Armed Services Committee (HASC) Chairman Mac Thornberry has said that CRs "do enormous, lasting damage to the American military" and contribute to "an alarming increase in accidents, growing evidence of a force under stress, and an eroding technological position when compared with our adversaries."[187] Former HASC Ranking Member Adam Smith has stated that "funding our government by continuing resolutions undermines our national security."[188]

The Senate Homeland Security and Government Affairs Committee Federal Spending Oversight and Emergency Management Subcommittee held a hearing on CRs in February 2018. Chairman Rand Paul stated that congressional dysfunction "causes uncertainty in agencies and delays plans, which may increase costs to the taxpayer."[189] Ranking Member Gary Peters added that the pattern of CRs "needlessly threatens our national and economic security" and results in "wasting countless hours across the federal government as employees prepare for shutdowns or draft detailed, comprehensive yearly budget documents that are completely disregarded."[190]

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[183] Ibid.
[184] GPO, U.S. Senate Committee on Armed Services, *The Impact of the Budget Control Act of 2011 and Sequestration on National Security,* January 28, 2015, accessed July 10, 2017, https://www.gpo.gov/fdsys/pkg/CHRG-114shrg95604/pdf/CHRG-114shrg95604.pdf.
[185] "McCain & Reed Request Information From DOD on Effects of Continuing Resolution," Jack Reed, News Releases, August 30, 2017, accessed September 25, 2017, https://www.reed.senate.gov/news/releases/mccain-and-reed-request-information-from-dod-on-effects-of-continuing-resolution.
[186] GPO, U.S. Senate Committee on Armed Services, *The Impacts of Sequestration and/or a Full-year Continuing Resolution on the Department of Defense,* February 12, 2013, accessed July 10, 2017, https://www.gpo.gov/fdsys/pkg/CHRG-113shrg86707/pdf/CHRG-113shrg86707.pdf.
[187] "Thornberry Votes no on CR," House Armed Services Committee, Press Releases, September 8, 2017, accessed September 25, 2017, https://armedservices.house.gov/news/press-releases/thornberry-votes-no-cr.
[188] "Congressman Smith Statement on the passage of the Continuing Resolution for Fiscal Year 2017," Adam Smith, Press Releases, December 8, 2016, accessed September 25, 2017, https://adamsmith.house.gov/media-center/press-releases/congressman-smith-statement-on-the-passage-of-the-continuing-resolution.
[189] Statement of Chairman Rand Paul, Senate Subcommittee on Federal Spending Oversight and Emergency Management, *Terrible, No Good, Very Bad Ways of Funding Government: Exploring the Cost to Taxpayers of Spending Uncertainty caused by Governing through Continuing Resolutions, Giant Omnibus Spending Bills, and Shutdown Crises,* February 6, 2018, accessed February 7, 2018, http://www.hsgac.senate.gov/download/02/07/2018/sen-paul-opening-statement.
[190] Statement of Ranking Member Gary C. Peters, Senate Subcommittee on Federal Spending Oversight and Emergency Management, *Terrible, No Good, Very Bad Ways of Funding Government: Exploring the Cost to Taxpayers of Spending Uncertainty caused by Governing*

Counterargument:
CRs *Should* Harm DoD

The question of how painful a CR *should* be is complicated and carries implications far beyond defense acquisition. Constitutional separation of powers has ensured throughout U.S. history that the legislature can act as a check on the Executive Branch. Of the limited number of levers Congress can push and pull to exert power over the executive, the most important is arguably the power of the purse.

Currently, Congress appears to have barely enough political will to enact regular appropriations bills with months of delay. If CR rules on DoD acquisition spending were altered sufficiently, it could bring about a scenario in which DoD suffered very limited negative effects from even a yearlong CR. In such a scenario, there is a justifiable concern that congressional political will would be reduced so much that no regular appropriations bills would be enacted at all. In such a scenario, Congress would effectively be tasking DoD with planning the appropriation of its own money via the annual President's budget request.

Such an arrangement would arguably violate constitutional requirements, institutional norms, and common sense. Were DoD to spend money throughout the year despite a consistent nonenactment of regular appropriations, it would appear to transfer much of the constitutional power of the purse from legislature to executive. It could dilute Congress's oversight capabilities by undermining lawmakers' ability to impose financial consequences on DoD for failing to comply with laws. It would also appear to create a conflict of interest by making the same entities responsible for both operating and resourcing DoD.

According to this line of thinking, in the absence of timely enactment of regular appropriations bills, CRs *should* be painful for DoD and other Executive Branch agencies. Without this pain and the indirect pressure it puts on lawmakers, the political will of Congress could continue to erode in a way that exacerbates the problems faced by the institution.

The solution implied by this point of view might not be to change the rules associated with DoD acquisition under CRs. Instead, it might be to change the rules of Congress in a way that lowers the probability of Congress failing to pass regular appropriations before the start of the fiscal year. For instance, congressional rules could be altered to allow for lower voting thresholds and limits to filibustering when considering the 12 annual regular appropriations bills.

Industry Perspectives

In addition to harming warfighter and taxpayer interests, CRs can have several negative effects on the companies with which DoD does business. CRs disrupt personnel decisions, as companies have to delay hiring to wait for contract awards. In some cases, ideal candidates may already have moved on to other jobs.[191]

Industry representatives also complain of CR effects on payment delays. Under normal circumstances, when DoD fails to pay a vendor by a certain date, it must pay an additional interest penalty to account for the time value of money.[192] When vendor cash flows are disrupted due to a CR, however, the government faces no such interest penalty. There are also impacts to industry for fiscal year annual

through Continuing Resolutions, Giant Omnibus Spending Bills, and Shutdown Crises, February 6, 2018, accessed February 7, 2018, http://www.hsgac.senate.gov/download/02/06/2018/sen-peters-opening-statement.

[191] "Continuing resolutions jack up government costs," Jessie Bur, *Federal Times,* February 2, 2018, accessed March 22, 2018, https://www.federaltimes.com/management/budget/2018/02/02/continuing-resolutions-jack-up-government-costs.

[192] Under 31 U.S.C. § 3902: "The head of an agency acquiring property or service from a business concern, who does not pay the concern for each complete delivered item of property or service by the required payment date, shall pay an interest penalty to the concern on the amount of the payment due… for the period beginning on the day after the required payment date and ending on the date on which payment is made."

goals in sales, revenue, profit, and cash flow, especially if their fiscal year overlaps with the calendar year.[193]

One industry organization stated that CRs constitute a failure to "fully support America's military deployed across the globe" and specifically undermine industries with large numbers of high-skill, high-wage jobs.[194] Another industry group characterized regular NDAAs as vital for avoiding needless uncertainty, regaining readiness, recapitalization and modernization, and mitigating long-term damage to the defense industrial base.[195]

CRs have an outsized effect on small businesses that sell to DoD, which are often more dependent on week to week cash flows and have less ability to ride out unexpected disruptions.[196]

Case Study:
CR Effects on Price Negotiation

One complaint about CRs involves the reduced length of time between contract obligation authority and the expiration of that authority. The resulting increase in urgency reportedly raises contract costs by boosting the negotiating leverage of vendors.

In one mature production program, for instance, acquisition personnel had in prior years begun discussing prices with around 9 months of planned negotiation time. The contracting office had previously succeeded in negotiating the price down from the vendor's initial proposals, doing "the typical back and forth trying to get them back in the box."[197] They believed the same could be achieved in the FY 2017 acquisition cycle.

Acquisition personnel anticipated enactment of a regular appropriations bill by sometime in the second quarter, but it was not enacted until the middle of the third quarter. As a result, there was much less time remaining for the price negotiation process. As the end of the fiscal year approached and the "pressure to obligate" increased, senior leadership ultimately stepped in and instructed the contracting office to make the award at about 3 percent higher than the price that was considered negotiable without a CR in effect.[198]

Proposed Solutions

Enacting regular appropriations bills prior to the start of each fiscal year is the ideal solution to this problem. If Congress continues to be unable to reliably enact regular defense appropriations each year, viable alternative solutions include creating pilot carryover budget authorities and obligation authorities to be employed when Congress adopts a CR, permitting initiation of new starts, permitting

[193] Discussion with Defense Acquisition University scholar in November 2018.
[194] "AIA Calls on Congressional Leaders to Finalize FY 18 Spending and Revise Budget Control Act Caps," David Melcher, President and CEO, Aerospace Industries Association, December 22, 2017, accessed March 27, 2018, https://www.aia-aerospace.org/news/aia-calls-on-congressional-leaders-to-finalize-fy-18-spending-and-revise-budget-control-act-caps.
[195] "NDIA puts support behind omnibus bill, calls for fast passage," National Defense Industrial Association, March 20, 2018, accessed March 27, 2018, http://www.ndia.org/about/media/press-releases/2018/3/20/omnibus.
[196] See, for example, House Minority Whip Steny Hoyer's comments quoted by news media in February 2018: "Continuing resolutions jack up government costs," Jessie Bur, Federal Times, February 2, 2018, accessed March 22, 2018, https://www.federaltimes.com/management/budget/2018/02/02/continuing-resolutions-jack-up-government-costs.
[197] Navy program official, discussion with Section 809 Panel, April 2018.
[198] Ibid.

initiation of production rate increase, and permitting initiation of multiyear procurements that align with the lowest congressional committee marks.

RECOMMENDATIONS

Recommendation 50: Enact regular appropriations bills on time.

Problem
CRs continue to undermine strategic execution of funds in the defense acquisition system.

Background
Congress is the sole entity with constitutional authority to fund the government:

> *The Congress shall have Power… to pay the Debts and provide for the common Defence and general Welfare of the United States… No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law.*[199]

If the DoD acquisition system is to be resourced at all, it is Congress's fundamental constitutional responsibility to manage that resourcing process. Despite efforts by congressional leadership and the appropriations committees, Congress does not appear able to reliably pass defense appropriations bills on an annual basis prior to the start of the fiscal year.

Discussion
Although there is bipartisan acknowledgement of the problems associated with CRs, Congress continues to use CRs as a regular means of funding DoD. This state of affairs points to the intractability of the CR issue. Virtually all stakeholders agree that CRs are detrimental to the defense acquisition system, but Congress appears to lack the collective action capacity needed to ensure lasting change.

Conclusions
Ideally, the only recommendation for addressing the effect of CRs on defense acquisition would be for Congress to pass regular defense appropriations bills via the established process. If the appropriations process functioned as intended, CRs would be unnecessary and the Section 809 Panel's CR-related recommendations would be irrelevant. The process appears, however, to be broken. Unless Congress can find a way of repairing it, the subsequent recommendations in this section may serve as alternatives.

There are no easy solutions. CRs are a product of political gridlock and resulting congressional inaction. This problem is particularly intractable because of Congress's fundamental constitutional responsibility for appropriations. The only real solution to the problem of CRs is for the various factions of Congress to begin working together to pass appropriations in a timely manner each year

[199] U.S. Constitution, Article I, Section 8(12) and Section 9(7).

(before October 1).[200] Until timely appropriations occur regularly, however, Congress could consider several options for mitigating the harmful effects of CRs on defense acquisition.

One way of avoiding future CRs might be to create a strong disincentive for Congress to rely on them. This approach could potentially be implemented without impinging on Congress's constitutional power of the purse.

For example, Congress could pass a law automatically exempting agencies, when operating under a CR, from certain oversight and reporting requirements (or loosening those requirements).[201] This approach would presumably shorten acquisition timetables and free up limited manpower that would otherwise be dedicated to meeting reporting requirements. This manpower could then be reallocated to addressing the administrative challenges associated with CRs. Another approach would be to loosen DoD's deadlines and budget line-item rules for execution of funds under CRs. This approach is outlined in Recommendations 51 through 54 of this report.

Implementation

Legislative Branch

- Enact defense appropriations and authorization laws prior to the start of the fiscal year on October 1.

Executive Branch

- There are no regulatory changes required for this recommendation.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- None.

[200] Congress has shown a desire to develop a long-term, bipartisan solution to the CR problem. Attached to the fifth CR bill enacted in FY 2018, Congress included a provision establishing a Joint Select Committee on Budget and Appropriations Process Reform. The purpose of the joint committee is to "provide recommendations and legislative language that will significantly reform the budget and appropriations process." See Title IV, Subtitle B of the Bipartisan Budget Act of 2018, Pub. L. No. 115-123 (2018).
[201] As an example, Congress could enact a law exempting DoD, in years without regular appropriations enacted by October 1, from completing its inventory of contracted services reporting requirements under 10 U.S.C. § 2330a. This is just one of many defense acquisition reporting requirements from which DoD could be exempted in the event of a CR.

Recommendation 51: Mitigate the negative effect of continuing resolutions by allowing congressional regular appropriations to remain available for a standardized duration from date of enactment.

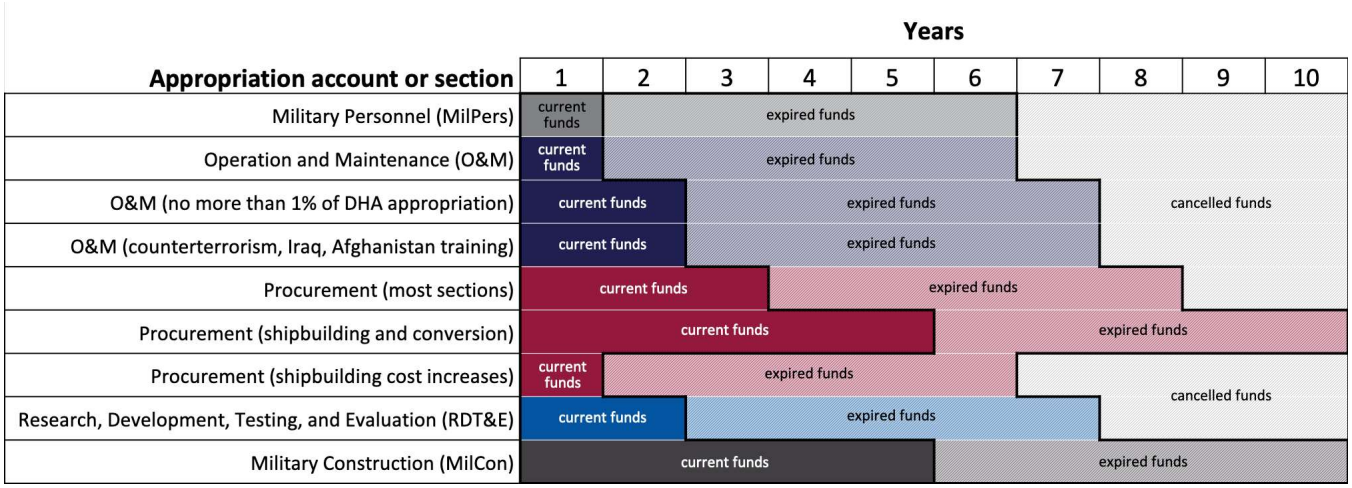
Problem

General consensus exists within DoD leadership, the Military Services, and Congress that the ongoing use of CRs is deeply harmful to the defense acquisition system. One of the main problems is the relatively short span of time available to obligate funds under a CR.

Background

Under the regular appropriations process, Congress appropriates funding for DoD prior to the beginning of a fiscal year on October 1. DoD then has a certain number of years, dependent on the appropriations account, to obligate the funds.

Figure 4-14. Multiyear Appropriation Examples from FY 2018[202]



When a regular appropriations bill is not enacted until late in the year, DoD, in effect, has a shorter period to obligate much of the funds. For example, when the FY 2009 *Department of Defense* appropriations bill was enacted on the day before the beginning of the fiscal year, it allowed DoD 12 full months to obligate single-year O&M funds.[203] When the FY 2017 *Department of Defense* appropriations bill was enacted on May 5, however, the government was already well into the third quarter of the fiscal year.[204] The appropriations law's timing restrictions, in effect, allowed DoD less than 5 months to fully obligate single-year funding, constrained by new start rules. Although funding

[202] See Division C of the Consolidated Appropriations Act, 2018, Pub. L. No. 115-141 (2018). DHA refers to Defense Health Agency. Counterterrorism, Iraq, and Afghanistan training O&M appropriation is from FY 2018 defense appropriation Title IX: Overseas Contingency Operations/Global War on Terrorism, Operation and Maintenance accounts. For duration of obligation authority for prior year shipbuilding cost increases, see Section 8072 of Title VIII: General Provisions. The Military Construction title is not present in the Department of Defense Appropriation Act, but rather in the Military Construction and Veterans Affairs, and Related Agencies Appropriations Act (see Division J in FY2018 omnibus appropriation).
[203] Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, Pub. L. No. 110-329 (2008).
[204] Consolidated Appropriations Act, 2017, Pub. L. No. 115-31 (2017).

can be obligated under a CR, the timeframe for much of that obligation is reduced. In addition, multiple CRs require multiple funding actions which create an unnecessarily increased workload.

Discussion

When contracting offices have only a few months from time of appropriation to execute a contract, multiple problems arise. The value of strategic planning is diluted when acquisition personnel are uncertain how much money will eventually be made available. Vendors have greater leverage over the government when they know that funds must be obligated on a more urgent timeframe. The workforce, which is already heavily worked at the end of a regular fiscal year, becomes even more overworked at that time. This situation causes indirect problems with morale and retention.[205]

Conclusions

DoD develops its budget requests to Congress each year, and they detail the periods of time in which the DoD intends to spend money. Those yearly budgets then are modified and approved by Congress in both appropriations laws and committee reports.[206] To meet the intent of appropriations bills that are based on yearly budgets, DoD must be able to spend money over the course of the normally defined yearly periods.

U.S. law defines the term *fiscal year* as the timespan that "begins on October 1 of each year and ends on September 30 of the following year."[207] To spend money within the normal yearly blocks of time, DoD must be able to operate within a fiscal year that, in fact, lasts approximately 1 year. This proposal requires, in effect, modifying the definition of the term *fiscal year* for years in which DoD depends on long-term CR funding.

Congress should allow for CR-triggered automatic flexibility in timing of expenditures. For instance, Congress could pass a law allowing for minimum 1-year validity of all funding appropriated under CRs or regular appropriations. This measure would, if a regular appropriations bill were enacted prior to the start of the fiscal year, have no effect. If Congress chose to fund the government under one or more CRs, however, the measure would eliminate the budget-compression effect that currently takes place when Congress fails to appropriate full-year funding until well into the fiscal year.

Some have suggested that implementation of this proposal would entail technical and legal problems. One defense budget expert said,

> *The cost to modify accounting systems – which are not yet auditable – to handle varying lengths of fiscal years would be a nightmare. A foreseeable consequence of this would be a dramatic increase in the rate of Antideficiency Act violations because program offices and commands would easily lose track of how long their funding is available.*[208]

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[205] Installation contracting office personnel, meetings with Section 809 Panel, September 2017.
[206] Topline appropriations account numbers exist in the text of appropriations laws and have binding legal force (for example, "Operation and Maintenance, Army"). Program element and budget line item numbers, which are much more detailed, appear in appropriations bill conference reports. DoD is expected to abide by both sets of funding numbers, but under reprogramming rules, acquisition personnel have greater flexibility within appropriations accounts than across them.
[207] Fiscal Year, 31 U.S.C. § 1102.
[208] Emails with Naval Postgraduate School professor, February 2018. The Antideficiency Act, among other things, makes it illegal for a federal government representative to "make or authorize an expenditure or obligation exceeding an amount available in an

The argument is that the financial management community might experience some disarray stemming from extensions to the de facto length of the fiscal year. The program management and contracting communities, however, face enormous amounts of disarray under the status quo. The main purpose of the DoD acquisition system is to deliver capabilities to the nation's warfighters. Congress has a responsibility to provide relief to the acquisition communities, even if doing so necessitates redesign of financial management software or practices.

To ensure no Antideficiency Act violations occurred, Congress and DoD would need to provide clear communication to the working-level acquisition community, detailing exactly what was acceptable and unacceptable under the proposed carryover authority.

Alternative Ideas: Automated Appropriations

Some have advocated for a process by which if Congress failed to pass regular appropriations, they would be considered to have been approved by default. One retired DoD acquisition official suggested that the best way to ensure the proper functioning of the defense acquisition system would be for Congress to enact a law guaranteeing defense funding even in the face of a complete breakdown in congressional negotiations:

> Should Congress during any budget year fail to enact a Department of Defense Appropriations Bill by the last day of the preceding fiscal year for which the budget is being formed, an appropriations bill shall be enacted de facto on the first day of the fiscal year for which Congress did not appropriate for the Department of Defense, and that the appropriated amount is equal to the prior year's appropriation, and shall include an additional 5 percent of the prior year's appropriation such that the appropriations provided are 105 percent of the prior year's appropriation. Furthermore, no subsequent action shall be taken by Congress to lessen the amount of funding for that fiscal year in which Congress failed to appropriate for the defense of the Nation. Congress may act only to increase the appropriated amount above the 5 percent increase.

Many observers would doubtless see this proposal as raising issues related to constitutionality and separation of powers. This report makes recommendations to Congress that are substantially more restrained in their approach.

Implementation

Note: The precise technical details of the recommendation outlined below would likely require tailoring by experts in the congressional appropriations committees, OMB, and DoD. The core recommendation of the Section 809 Panel is not necessarily to adopt the exact details laid out below, but simply to allow for a longer-lasting obligational authority in the event of a long-duration CR authority. The language below is provided as an example of possible implementation. With respect to auditability, oversight, and financial management software modification, challenges might appear in mid implementation. Congress should defer to OMB, the DoD Comptroller, and the Military Service comptrollers in determining the most effective way to permit longer obligation authority while effectively addressing technical concerns. This change would primarily fall within the jurisdiction of the appropriations committees.

appropriation or fund for the expenditure or obligation." See 31 U.S.C. § 1341 (Limitations on expending and obligating amounts), 31 U.S.C. § 1342 (Limitation on voluntary services), and 31 U.S.C. § 1517 (Prohibited obligations and expenditures). Also see "Antideficiency Act Resources," GAO legal explainer, accessed February 23, 2018, https://www.gao.gov/legal/anti-deficiency-act/about.

Legislative Branch

- Grant DoD budget authority that expires at the end of the first quarter (of the relevant fiscal year) before which appropriations are enacted into law in fiscal years for which Congress does not pass a regular defense appropriation bill by December 31. For example, with single-year O&M appropriation accounts:
  - If FY 2017 regular appropriations are enacted in the first quarter of FY 2017, funds must be obligated by the end of FY 2017 as is normally the case.
  - If FY 2017 regular appropriations are enacted in the second quarter of FY 2017, the selected portfolios and/or commands may obligate funds as late as the end of the first quarter of FY 2018 (December 31, 2017).
  - If FY 2017 regular appropriations are enacted in third quarter of FY 2017, funds may be obligated as late as the end of the second quarter of FY 2018 (March 31, 2018).
  - Carried over funds may not be decremented from the future budget request simply because they were obligated in a later fiscal year.

Executive Branch

- Permit recipients of pilot funding flexibilities to access funding until the date at which appropriation availability legally expires in the case of a late regular appropriation that is enacted past the end date of the first quarter of the fiscal year.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- Altering the period of availability of all DoD appropriations would carry implications for regular appropriations bills in addition to the *Department of Defense* appropriations bill. These bills include *Military Construction and Veterans Affairs* (Division L of the FY 2017 omnibus appropriation, Pub. L. No. 115–31) and *Energy and Water Development and Related Agencies* (Division D of the FY 2017 omnibus). Both of these annual bills contain several billion dollars in appropriations for DoD as well as other agencies.

- The question of whether to apply a similar solution in other nondefense appropriations bills is beyond the scope of the Section 809 Panel.
  - Congress has indicated a willingness to use yearlong CRs for appropriations bills other than the *Department of Defense* bill. In FY 2011, for instance, all appropriations except for the main DoD bill provided agency funding via a yearlong CR.[209]

- In fiscal law circles, a robust argument exists regarding how painful a CR should be for Executive Branch agencies. If insufficiently painful, CRs may eliminate the political incentive for

[209] Department of Defense and Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10 (2011).

members of Congress to enact regular appropriations bills each year. If too painful, CRs may cripple the ability of agencies to accomplish their missions.

- If greater flexibility were granted to DoD than to other Executive Branch agencies under CRs, it could dilute the incentive for members of Congress to enact regular appropriations. If these incentives decreased to the point at which regular appropriations were not enacted, it could produce an indirectly harmful effect on agencies other than DoD.

Recommendation 52: Permit the initiation of all new starts, provided Congress has appropriated sufficient funding.

Problem

Continued reliance on CRs prevents deployment of critical new capabilities to warfighters by preventing the initiation of program *new starts*.

Background

The *new start* restriction in CRs generally consists of language prohibiting the "new production of items not funded for production" in previous fiscal years.[210] This restriction prevents initiation of new programs until a regular *Department of Defense* appropriations bill is enacted. RDT&E programs are also affected by the new start restrictions.

With the uncertainty of multiple CRs, however, acquisition officials cannot plan to award contracts at specific points in the year. If they do make such plans and CRs continue beyond those points, they may have to restructure the contracts or programs in question.

Discussion

Senior officials report that the prohibition on new starts causes increased inefficiency in the defense acquisition system. When vendors believe there is a risk that a planned program may not begin on time, they will invariably price that risk into a contract. Then-Secretary of Defense James Mattis wrote in 2017,

> *New start rules and funding constraints carried forward under each CR extension combine to increase the likelihood that costs of material and labor in the contracts themselves will also grow. To the vendors and manufacturers, the Government becomes a less reliable, higher-risk customer.*[211]

In the first 3 months of FY 2018, the Army had planned 18 new starts that were affected by the CRs enacted by Congress. One of the planned new starts was the Interim Combat Service Rifle program, which was canceled in November 2017 amidst a succession of CRs.[212] Given 6 months of CRs in

[210] For example, see Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017, Pub. L. No. 115-56 (2017).
[211] James Mattis, *Impacts of a Continuing Resolution Authority in Fiscal Year 2018* (letter to Senate Armed Services Committee), September 8, 2017.
[212] "The Army's Powerful New 7.62mm Service Rifle Is Officially Dead," Jared Keller, Task and Purpose, November 30, 2017, accessed January 22, 2018, https://taskandpurpose.com/army-interim-combat-service-rifle.

FY 2018, the Navy had seven procurement contracts and three R&D contracts the award of which would be delayed due to new start rules.[213] The Air Force had six new starts that would be affected by 6 months of CRs, including multiple fighter aircraft upgrades and a joint space operations system.[214]

Case Study:
New Start: Enhanced Polar System Recapitalization

In early 2018, the Air Force's Enhanced Polar System Recapitalization (EPS-R) was intended to maintain satellite coverage of polar regions, a critical function for certain U.S. Navy operations. By partnering with an allied country to launch multiple payloads, EPS-R had the opportunity to save approximately $900 million.

The international partner, however, had a preexisting launch schedule that created an inflexible time constraint. Because of the urgency of the requirement, it had to be funded via a new start budget line item for which appropriations did not already exist.

This funding approach required submission of a congressional PA request to the four congressional defense committees. According to the acquisition authority, these requests take an average of 182 days to process.[215] This would extend past the international partner's launch deadline.

At the time the Air Force began its request for EPS-R, Congress was still in the process of negotiating regular appropriations bills, working through additional CRs, and attempting unsuccessfully to avoid a government shutdown. Under some intelligence-related funding authorities, the EPS-R new start would have been automatically approved by default after 30 days.[216] Due to the slowness of the approval process during a succession of CRs, however, the Air Force faced uncertainties in the delivery of critical capabilities to the warfighter and $900 million in taxpayer savings.

Ultimately, program officials were able to partner with the international agency and obligate money on the required contract modification at the last minute, having obtained approval from all four congressional defense committees. Had the program not been sufficiently high-cost and high-profile, DoD likely would have been unable to obtain these approvals from all congressional stakeholders on such short notice. One senior program official stated, "we narrowly escaped disaster" and the acquisition system should not continue to rely on these types of "diving saves."[217]

Shortly before the beginning of FY 2018, DoD requested approval of some 75 new start anomalies in CRs for FY 2018.[218] These requests were not included in the texts of the subsequently enacted CRs. There are signs that the urgency of DoD's new start needs may be increasing. DoD requested 36 new start anomalies in the FY 2015 CRs, a figure which had about doubled 3 years later.[219] Defense

[213] James Mattis, "Impacts of a Continuing Resolution Authority in Fiscal Year 2018" (letter to Senate Armed Services Committee), September 8, 2017.
[214] Ibid.
[215] U.S. Air Force Space and Missile Systems Center, presentation to Section 809 Panel, January 24, 2018.
[216] See 50 U.S.C. § 3038(c), under which the Defense Intelligence Agency may expend money on "objects of a confidential, extraordinary, or emergency nature" "without regard to the provisions of law or regulation relating to the expenditure of Government funds," provided the intelligence and defense committees have been notified and given 30 days to review the proposed expenditure.
[217] U.S. Air Force Space and Missile Systems Center staff, follow-up discussion with Section 809 Panel, March 2018.
[218] "What the Continuing Resolution Means for Defense Spending in FY 2018," Seamus Daniels and Todd Harrison, Center for Strategic and International Studies, September 27, 2017, accessed January 23, 2018, https://www.csis.org/analysis/what-continuing-resolution-means-defense-spending-fy-2018.
[219] U.S. Air Force Space and Missile Systems Center, presentation to Section 809 Panel, January 24, 2018. As an alternative explanation for the growth in new start anomaly requests, the increase between FY 2015 and FY 2018 may reflect longer durations of individual CR bills. The increase may also reflect what one budgeting expert called "DoD's growing intolerance of CRs and willingness to ask for anomalies." Naval Postgraduate School professor, emails with Section 809 Panel, February 2018.

acquisition officials report that the current process for requesting inclusion of anomalies in CRs is ineffective.[220]

Conclusions

The prohibition on the initiation of new starts under a CR results in increased contract costs and inefficient acquisition outcomes. It also potentially prevents deployment of needed capabilities to warfighters in a timely manner.

Well-intentioned reasons for the ban on new starts may exist. Impeding the defense acquisition system may create political incentives for Congress to enact regular appropriations, which might not exist otherwise. The current system, however, does not generate incentives for members of Congress as much as it negatively affects taxpayers and warfighters.

At the very least, Congress must allow DoD to initiate the acquisition of critically-needed capabilities, regardless of whether Congress has negotiated a funding bill. Determination of which needs are critical should be based on the expertise of DoD acquisition professionals and approved by Congress.

Implementation

Legislative Branch

- Consider the initiation of a DoD new start to be automatically approved provided that (a) a DoD regular appropriations bill has not been passed by both houses of Congress, (b) DoD has been temporarily funded by Congress, (c) the new start has not been marked negatively by any of the congressional defense committees in their committee reports, and (d) it is not funded above the lowest budget line item mark from among the four congressional defense committees.[221] This change would primarily fall within the jurisdiction of the appropriations committees.

Executive Branch

- Track all four congressional defense committee marks to ensure that new starts are not initiated in programs or projects that have been marked with prejudice. If a new start request has been marked by any of the congressional defense committees, only execute funds to the level of the lowest committee's mark.

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[220] U.S. Air Force Space and Missile Systems Center, presentation to Section 809 Panel, January 24, 2018. As an alternative explanation for the growth in new start anomaly requests, the increase between FY 2015 and FY 2018 may reflect longer durations of individual CR bills. The increase may also reflect what one budgeting expert called "DoD's growing intolerance of CRs and willingness to ask for anomalies." Naval Postgraduate School professor, emails with Section 809 Panel, February 2018.

[221] The four congressional defense committees, when they approve a bill, release committee reports with long data tables detailing their recommended changes to the defense budget at the individual line-item level. To resolve potential difference between the House and Senate, these committee report data tables are consolidated into a conference report joint explanatory statement. Unlike the dollar figures referring to broad accounts in appropriations law, DoD is not directly bound by law to comply with these detailed budget line items. There is, however, an expectation that DoD will make every effort to abide by the recommendations in the appropriations committee's conference report joint explanatory statements (which are built from the committee reports). The committee reports, therefore, serve as de facto sets of instructions from the legislature to the Executive Branch.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- If greater flexibility were granted to DoD than to other Executive Branch agencies under CRs, it could dilute the incentive for members of Congress to enact regular appropriations.

Recommendation 53: Permit the initiation of all production rate increases, provided Congress has appropriated sufficient funding.

Problem

The CR restrictions on production rate increases, like new start restrictions, are harmful to the acquisition system. They disrupt DoD's ability to plan contracts strategically, raise costs due to vendors building risk into their pricing, and potentially prevent the deployment of needed capabilities to warfighters.

Background

CRs regularly restrict DoD's ability to enter into procurement production rate increases as well as multiyear procurement contracts for property and services.[222] Like new start restrictions, production rate increase restrictions have proven to be enough of a problem for defense acquisition that DoD has requested special approvals for them under CRs at the beginning of the year.

At the end of FY 2017, DoD reportedly requested that approximately 40 production rate increases be permitted under CRs for the coming fiscal year.[223] These requests were not approved in the subsequent CRs for FY 2018.

Discussion

Procurement production unit costs have increased substantially during extended periods of long-duration CRs, a situation that Navy officials attribute to "a perception of risk associated with doing business with the government because contractors cannot efficiently plan."[224] Between FY 2012 and FY 2017, the Navy procured F/A-18 aircraft at an average cost of $81 million each, about $6 million higher than the most efficient rate. The Navy procured F-35 aircraft at an average cost of $187 million each, $21 million higher than the most efficient rate.[225]

The CRs in the first quarter of FY 2018 forced the Navy to delay induction of 11 ships. Due to hard physical constraints on shipyard capacity at any one time, these types of short-term induction delays cause disruption to deployment schedules years into the future.[226]

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[222] For example, see Pub. L. No. 115-56, Section 102(b). Under a regular appropriations act, DoD is permitted to enter into multiyear contracts for the procurement of property and services under 10 U.S.C. § 2306b and 10 U.S.C. § 2306c.
[223] Lynn Williams and Jennifer Roscoe, Congressional Research Service, "Defense Spending Under an Interim Continuing Resolution: In Brief," December 26, 2017.
[224] Office of the Secretary of the Navy personnel, emails with Section 809 Panel, December 2017.
[225] Ibid.
[226] James Mattis, "Impacts of a Continuing Resolution Authority in Fiscal Year 2018" (letter to Senate Armed Services Committee), September 8, 2017.

In the first 3 months of FY 2018, the Army had planned eight production rate increases that faced an effect from CRs. These included handguns, antitank missiles, medium machine guns, and tactical parachute systems.[227] In the first 6 months of FY 2018, the Navy had 12 production rate increases that would have to be deferred under CRs.[228]

Case Study:
Production Increase: Training Target Purchases

In FY 2017, a small Navy program managing the procurement of training targets purchased 30 units under a low-rate initial production contract, with an option to buy 45 more the following year. The option expired towards the end of the second quarter of FY 2018. Program personnel believed this option expiration date would allow enough time for Congress to enact a regular appropriations bill permitting the increased production rate.

The succession of CRs in FY 2018, however, ended up lasting through the bulk of the second quarter. Congress had appropriated short-term funding, and the appropriations committees had approved budget line items. Despite these measures, the program office had to renegotiate with the vendor to allow an extension to the option period because the program could not increase procurement quantities over the previous FY under a CR.

This work-around would have been unnecessary had Congress permitted production rate increases under the earlier CRs. Because of these restrictions and the resulting need to renegotiate the option period, the vendor gained negotiating leverage over the government and production deliveries were delayed.[229]

Conclusions

Like new start restrictions, production rate increase restrictions introduce unnecessary inefficiency into the defense acquisition system. Unpredictable deferrals raise costs, limit DoD's ability to plan acquisitions strategically, and potentially impede delivery of critical capabilities to warfighters.

Implementation

Legislative Branch

- Consider initiation of a DoD production rate increase to be automatically approved provided that (a) a Department of Defense regular appropriations bill has not been passed by both houses of Congress, (b) DoD has been temporarily funded by Congress, (c) the production rate increase has not been marked negatively by any of the congressional defense committees in their committee reports, and (d) it is not funded above the lowest budget line item mark from among the four congressional defense committees. This change would primarily fall within the jurisdiction of the appropriations committees.

[227] Ibid.
[228] Ibid.
[229] Navy acquisition personnel, discussions with Section 809 Panel, March 2018. Because of the small size of the program in question, the PM reported that a CR anomaly request "never made it out of the building." There are many acquisition programs of comparable size in DoD's budget. The rejection of this program's anomaly request at the unit level (before even reaching the Department of the Navy level) suggests that a large number of programs may seek relief from production rate increase restrictions, but these requests may never be seen or considered by the DoD Comptroller, OMB, or the congressional defense committees.

Executive Branch

- Track all four congressional defense committee marks to ensure that production rate increases are not initiated in programs or projects that have been marked with prejudice. If a production rate increase request has been marked by any of the congressional defense committees, only execute funds to the level of the lowest committee's mark.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- If greater flexibility were granted to DoD than to other Executive Branch agencies under CRs, it could dilute the incentive for members of Congress to enact regular appropriations.

Recommendation 54: Permit the initiation of multiyear procurements under a CR.

Problem

The CR restrictions on multiyear procurements have harmful effects on the acquisition system.

Background

CRs regularly restrict DoD's ability to enter into multiyear procurement contracts for property and services.[230] Like new start restrictions, multiyear procurement restrictions have threatened to prevent efficient execution of critical defense acquisitions.

Discussion

In late 2016, two Army helicopter programs required a multiyear procurement contract to realize substantial savings.[231] Due to a succession of CRs that ended up lasting until the third quarter of FY 2017, the Army was initially unable to enter into a multiyear procurement contract to realize these savings.

More than 2 months into the fiscal year, Congress permitted the inclusion in a CR of two targeted exemptions to multiyear procurement restrictions for the two helicopter programs in question.[232] By exempting the programs from CR restrictions, Congress successfully addressed two very specific problems with that year's CR. Addressing these two problems, however, depended on these problems being publicly visible enough to rise to the level of congressional concern.

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[230] For example, see Pub. L. No. 115-56 Section 102(b). Under a regular appropriations act, DoD is permitted to enter into multiyear contracts for the procurement of property and services under 10 U.S.C. § 2306b and 10 U.S.C. § 2306c.

[231] The Army's multiyear procurement contract to procure remanufactured AH-64E Apache attack helicopters was reportedly projected to result in cost savings of approximately 10 percent over five years. See "Boeing, US Army make multibillion, multiyear AH-64E deal official," Jen Judson, *Defense News,* March 22, 2017, accessed February 23, 2018, https://www.defensenews.com/land/2017/03/23/boeing-us-army-make-multibillion-multiyear-ah-64e-deal-official.

[232] Further Continuing and Security Assistance Appropriations Act, 2017, Pub. L. No. 114-254 (2016). The Section 156 modification states, "Notwithstanding sections 102 and 104 of this Act, amounts made available pursuant to section 101 may be used for multiyear procurement contracts, including advance procurement, for the AH-64E Attack Helicopter and the UH-60M Black Hawk Helicopter."

Conclusions

In best-case scenarios, multiyear procurement CR restrictions involve subjecting programs to the unpredictability and short-term timeframe of political processes in Congress. In worst-case scenarios, these restrictions introduce unnecessary inefficiency and cost increases into the defense acquisition system and prevent delivery of needed equipment to warfighters. To mitigate this problem, the initiation of multiyear procurements should be permitted by default if Congress fails to enact regular appropriations, taking into account the lowest budget line item mark from among the four congressional defense committees.

Implementation

Legislative Branch

- Consider the initiation of a DoD multiyear procurement to be automatically approved provided that (a) a *Department of Defense* regular appropriations bill has not been passed by both houses of Congress, (b) DoD has been temporarily funded by Congress, (c) the multiyear procurement has not been marked negatively by any of the congressional defense committees in their committee reports, and (d) it is not funded above the lowest budget line item mark from among the four congressional defense committees. This change would primarily fall within the jurisdiction of the appropriations committees.

Executive Branch

- Track all four congressional defense committee marks to ensure that multiyear procurements are not initiated in programs or projects that have been marked with prejudice. If a new multiyear procurement request has been marked by any of the congressional defense committees, only execute funds to the level of the lowest committee's mark.

Note: There are no Implementation Details for this recommendation.

Implications for Other Agencies

- If greater flexibility were granted to DoD than to other Executive Branch agencies under CRs, it could dilute the incentive for members of Congress to enact regular appropriations.

RECOMMENDATION 55 IS A STAND-ALONE RECOMMENDATION ABOUT THE PROMPT PAYMENT ACT

Recommendation 55: Raise the Prompt Payment Act threshold.

Problem

The costs of complying with the current Prompt Payment Act threshold frequently exceed the payment owed to the vendors. In other words, the government devotes time, money, and administrative capacity to reimburse vendors for negligible dollar amounts.

Background

The Prompt Payment Act (PPA) requires Federal agencies to pay interest on late payments to contractors and vendors for services and property. Under the PPA, the government is required to pay its bills to contractors no earlier than 7 days prior and no later than 30 days after receiving a proper invoice.[233] To make these interest payments on time, DoD must devote money and manpower to processing, administration, and other work.

The PPA's purpose is to mitigate the harm caused to government contractors by late payments for services. The minimum payment threshold is set at $1.00 and has not been adjusted for inflation or interest rate fluctuations since the 1980s.

Early History

In 1981, GAO reported late payments could likely cost contractors at least $150 million per year and possibly as much as $375 million.[234] The paper-based invoicing used at the time heavily contributed to delays in payments, which harmed all parties involved. Vendors suffered because they were forced to borrow from other operating funds to cover immediate costs. DoD and other agencies had to deal with the additional administrative burden of processing late paperwork.

One major issue at the time was the lack of uniform standards for invoice payments to vendors and contractors. Small businesses, with little budget flexibility, suffered most, sometimes even being forced to suspend operations.

Because no uniform procedures for paying invoices on time existed, agencies sometimes paid too early, which cost the government additional money. In the early 1980s, the GAO projected that paying these invoices on time would save the government $900 million per year.[235] The Prompt Payment Act of 1982 provided a remedy for these issues.[236]

Legislative Background

PPA is codified under 31 U.S.C. Chapter 39.[237] There have been several amendments to PPA, the last of which occurred in 1998.[238] The $1.00 threshold was codified in 1988.[239] Related legislation has been introduced from time to time in subsequent years.[240] The codified section on interest payments reads in part as follows:

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[233] Late Payment Interest Penalties, 5 CFR 1315.10. Also see Contacting Clauses, FAR 32.908 and Prompt Payment, FAR 52.232-25.
[234] GAO, *Actions to Improve Timeliness of Bill Paying by the Federal Government Could Save Hundreds of Millions of Dollars, AFMD-82-1,* October 8, 1981, 6, accessed October 30, 2018. https://www.gao.gov/assets/140/135325.pdf.
[235] GAO, *Financial Management: The Prompt Payment Act and DOD Problem Disbursements, GAO/AIMD-97-71,* May 1997, 3, accessed October 30, 2018, https://www.gao.gov/assets/230/224116.pdf.
[236] Prompt Payment Act, Pub. L. No. 97-177, 96 Stat. 85 (1982).
[237] Prompt Payment, 31 U.S.C. §§ 3901–3907.
[238] Pub. L. No. 100-496 (*Prompt Payment Act Amendments of 1988*) modified several portions of the PPA and added a section on construction contracts. Pub. L. No. 105-362 (*Federal Reports Elimination Act of 1998*) eliminated the requirement that agencies submit annual interest payment reports to OMB.
[239] Codified under 31 U.S.C. § 3902(c)(1). Also see Prompt Payments Act Amendments of 1988, Pub. L. No. 100-496, 102 Stat. 2455 (1988).
[240] For examples in the 115th Congress, see S. 2983 (*a bill to provide for prompt payments to small business contractors*) or H.R. 5337 (*Accelerated Payments for Small Businesses Act of 2018*), both of which would make it mandatory for agencies to pay invoices on small business contracts in 15 days instead of 30.

> *The interest shall be computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 7109(a)(1) and (b) of title 41, which is in effect at the time the agency accrues the obligation to pay a late payment interest penalty.*[241]

OMB regulations implementing PPA set out detailed requirements for calculating interest due on late payments.[242] Vendors that meet all other criteria for receiving interest penalties "shall be entitled to an additional penalty payment when the vendor is owed a late payment interest penalty by an agency of $1.00 or more."[243]

In 2012, OMB issued a memorandum directing executive agencies to "assist in expediting contractor payments to small business subcontractors" by paying their prime contractors "as soon as practicable, with a goal of paying all prime contractors within 15 days of receiving proper documentation."[244] The policy affected only payments in exchange for goods and services, and explicitly exempted PPA's provisions on late-payment interest penalties. The policy was rescinded in mid-2017.[245]

Payment Process

Interest payments begin to accrue 30 days after the government receives a contractor invoice unless a contract includes other specifications. Interest due on a late payment cannot exceed the amount accumulated in 1 year. Interest payments are applicable to procurement contracts, vendor payments, and utilities.[246]

Interest payments are paid out of program funds related to the contract to which the penalty is being applied. It is possible, however, for DoD to use funds from the larger military department associated with the program to cover interest expenses.[247]

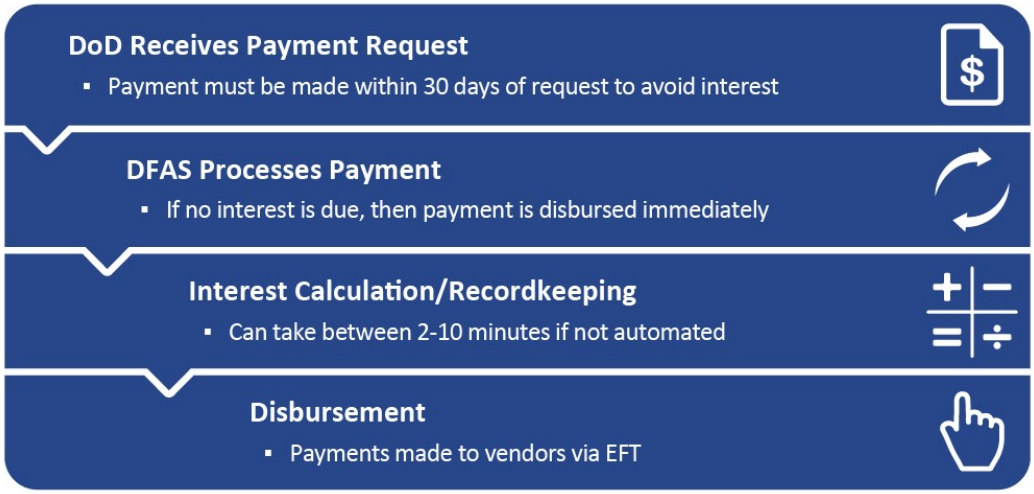
Discussion

The administrative workflow for PPA interest payments is shown in Figure 4-15 below.

[241] Interest Penalties, 31 U.S.C. § 3902(a).
[242] Late Payment Interest Penalties, 5 CFR 1315.10. Additional Penalties, 5 CFR 1315.11.
[243] Vendor Entitlements, 5 CFR 1315.11(a).
[244] OMB Memorandum 12-16, *Providing Prompt Payment to Small Business Subcontractors,* July 11, 2012, accessed June 22, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2012/m-12-16.pdf.
[245] OMB Memorandum 17-26, *Reducing Burden for Federal Agencies by Rescinding and Modifying OMB Memoranda,* June 15, 2017, accessed June 22, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2017/M-17-26.pdf.
[246] DoD Financial Management Regulation, Volume 10, Chapter 7, Section 070201.
[247] Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act, Pub. L. No. 107–117, § 8084, 115 Stat. 2266 (2002). The legislative change in this recommendation would make this provision a part of U.S. Code.

Administrative Process

Figure 4-15. DoD Invoice Processing Workflow



Contractors and DoD have standardized procedures for payment processing. When a contractor needs payment, an invoice is sent to the Defense Finance and Accounting Service (DFAS) through an online service called Invoicing, Receipt, Acceptance and Property Transfer (iRAPT).[248]

When DFAS receives an invoice from a contractor it is inputted into an entitlement system. As an example, one such entitlement system is the Mechanization of Contract Administration Service (MOCAS). MOCAS automatically determines the invoice due date in accordance with the contract in question.[249]

Should DFAS process a payment after its due date, MOCAS automatically generates a report which is sent to the Prompt Payment Interest Branch. Here DFAS personnel review each invoice case-by-case to determine if interest is due. Applicable interest rates for payments can be obtained from the Department of Treasury's Financial Management Service Prompt Payment Help Line or from the organization's website. Interest rates are updated biannually, at the end of June and December.[250]

Contracts with interest payments are entered into the Prompt Payment Database. This system then makes payments to contractors. Completed interest payment vouchers are available via Electronic Document Access (EDA).

[248] "iRAPT – Invoicing, Receipt, Acceptance and Property Transfer (formerly Wide Area Work Flow)," Defense Finance and Accounting Service, accessed June 22, 2018, https://www.dfas.mil/contractorsvendors/irapt.html.
[249] DoD Inspector General, *Financial Management: Report on DoD Compliance with the Prompt Payment Act on Payments to Contractors (D-2006-076),* April 19, 2006, 1, accessed October 30, 2018, https://media.defense.gov/2006/Apr/19/2001712515/-1/-1/1/06-076.pdf.
[250] "Prompt Pay Interest Rate History," U.S. Department of the Treasury, Bureau of the Fiscal Service, accessed on October 30, 2018, https://www.fiscal.treasury.gov/fsservices/gov/pmt/promptPayment/rates.htm.

Depending on which entitlement system is being used, DFAS has automated processes to calculate interest in some cases. If the process is not automated, then each interest calculation can take approximately 10 minutes to process.[251]

Problems with Compliance

PPA has created a regulatory headache for agencies over time. Several GAO and IG reports have confirmed issues with accurate reporting, including within DoD. A 2012 GAO report indicated $54 billion funds subject to PPA were not being considered or reported.[252]

Proliferation of accounting and resource management systems is part of the issue. At the time of the 2012 report, DoD had 19 different entitlement systems associated with commercial payments subject to PPA. Nine of these Enterprise Resource Planning systems were run by components of DoD that are not part of DFAS. GAO found that these nine systems were not considering their funds in the context of PPA legislation.[253] In FY 2011, DoD paid approximately $19 million in PPA penalties. By ignoring the commercial payments made by the nine non-DFAS systems identified by GAO, DoD underpaid vendors nearly $2 million in penalties.[254]

After these findings, GAO recommended DoD and DFAS set up a more comprehensive system to identify all commercial payments subject to the PPA. Although DoD made changes in response to the GAO report, this episode illustrates the complexity of making payments from DoD to vendors. With this issue in mind, emphasis should be placed on eliminating non-value-added actions.

Value Added Breakdown

Congress passed PPA in 1982 at a time when invoice processing was paper based. This system was often backlogged and inefficient. Automation has increased payment rates with the adoption of systems such as iRAPT.[255]

Late payments of less than $1.00 are not subject to PPA. The interest rate has fluctuated over the last 3 decades, yet this threshold has remained constant, with no regard to inflation or changes to the government's invoice paying process.

[251] DFAS employee, discussions with Section 809 Panel staff, June-July 2018.
[252] GAO, *DOD Financial Management: Improvements Needed in Prompt Payment Monitoring and Reporting, GAO-12-662R,* June 26, 2012, 3, accessed October 30, 2018, https://www.gao.gov/assets/600/591902.pdf.
[253] Ibid, 3–4.
[254] Ibid, 5.
[255] DFAS employee, discussions with Section 809 Panel staff, June-July 2018.

Figure 4-16. Volume of MOCAS Interest Payments to Businesses in FY 2017[256]



Of the 14,195 PPA transactions in FY 2017 within MOCAS, nearly 34 percent were for amounts less than $15. This lack of adjustment has led to an increase in penalties for small dollar amounts. By raising the penalty threshold to $15, these transactions would disappear. This change would only reduce payments to vendors by less than $30,000, or less than 1 percent of total interest payments made out of MOCAS in FY 2017.[257]

Macroeconomic Context

In the decades since PPA enactment, the U.S. dollar has experienced cumulative inflation of about 160 percent.[258] For the PPA threshold amount to have the same purchasing power equivalent to its original $1.00, it would have to be set to about $2.60. In addition to dollar inflation over time, the opportunity costs of delayed payment have declined since PPA enactment. In the early 1980s, U.S. interest rates were at historic highs for the post-WWII era. In mid-1982 when the PPA was enacted, returns on short-term U.S. Treasury securities exceeded 13 percent. As of mid-2018, the equivalent rate was less than 2 percent, meaning that late payments cost companies much less than when the PPA threshold was first established.[259]

[256] MOCAS data provided by DFAS.
[257] Ibid.
[258] Based on Urban Consumer Price Index (CPI-U) from May 1982 to May 2018, from Bureau of Labor Statistics, accessed July 5, 2018, https://www.bls.gov/data/inflation_calculator.htm.
[259] "Data Download Program: H.15 Selected Interest Rates," Board of Governors of the Federal Reserve System, accessed July 5, 2018, https://www.federalreserve.gov/datadownload/Download.aspx?rel=H15&series=d7e27b7b09a3a7feae95b9c61781fcd8&filetype=csv&label=include&layout=seriescolumn&from=05/01/1982&to=05/31/2018. Analysis based on monthly market yield on U.S. Treasury securities at 3-month constant maturity, quoted on investment basis. Rates of return are rounded from 13.08 percent in June 1982 and 1.90 percent in May 2018.

Transaction Costs

Table 4-5. Transaction Costs for DFAS and Industry (FY 2017 Estimated)[260]

	Low-End Estimate	Medium Estimate	High-End Estimate
DFAS employees working on PPA payments[261]	4	4	4
Annual Salary[262]	$ 47,485	$ 60,000	$ 80,000
Indirect Cost[263]	0%	50%	75%
Total Annual Cost	$ 189,940	$ 360,000	$ 560,000
FY 2017 PPA Transactions[264]	14,195	14,195	14,195
Total DFAS Cost Per Transaction (Estimated)[265]	**$ 13.83**	**$ 25.36**	**$ 39.45**
Contractor Transaction Processing Expense			
Annual Salary Accounts Receivable Analyst (Estimated)[266]	$ 60,000	$ 80,000	$ 80,000
Hourly Rate (Estimated)[267]	$ 28.85	$ 38.46	$ 38.46
Indirect Cost (Estimated)[268]	0%	50%	75%
Adjusted Hourly Rate (Estimated)[269]	$ 28.85	$ 57.69	$ 67.31
Time to Process (Hours)[270]	0.20	0.50	1.00
Total Contractor Cost Per Transaction	**$ 5.77**	**$ 28.85**	**$ 67.31**
Combined DoD/Contractor Cost Per Transaction	**$ 19.60**	**$ 54.21**	**$ 106.76**

PPA costs both contractors and DoD time and money. DFAS employs four full-time staff whose sole job is to process MOCAS PPA-related payments. An industry estimate of employee salaries and related costs indicated each PPA transaction costs the government approximately $14 and costs industry approximately $6.[271] In FY 2017, approximately 40 percent of PPA interest payments were for less than

[260] Data provided by DFAS and the Aerospace Industries Association. DFAS data only covers payments made through MOCAS.
[261] Based on emails with DFAS employees. Only includes those working on MOCAS PPA data on a full-time basis, as of mid-2018.
[262] Low cost estimates assume that DFAS salaries are GS-7 pay grades; higher cost estimates assume higher pay grades.
[263] This line item assumes overhead costs in DFAS including the costs of running IT systems and the partial salaries of additional employees who may periodically work on PPA issues. The low cost estimate assumes no money is spent on this.
[264] FY 2017 figures provided by DFAS employees.
[265] Based on total annual estimated cost to government divided by total number of reported transactions.
[266] Provided via consultation with industry analyst of PPA and other financial issues.
[267] Accountant Salary divided by work year of 2,080 hours.
[268] Estimate of industry's overhead costs involved in processes transactions. Assumed to be zero for low-cost estimate.
[269] Hourly Rate adjusted for indirect cost.
[270] Based on estimates of number of minutes needed to process a payment, provided by industry expert.
[271] Cost estimates based on work performed by Aerospace Industries Association, with underlying assumptions verified by DFAS staff.

$20 in MOCAS alone.[272] Representatives from industry and DoD have expressed agreement that small-value PPA payments are unnecessary.[273]

Conclusions

PPA should be amended to increase its out-of-date payment threshold. Raising the threshold for late payments would save the government time and money without substantially harming contractors.

In 1982 invoicing was slow and paper based. With advances in technology, there is much less reason that the government will be late paying its bills. The administrative process involved with PPA is a burden on DFAS and DoD. There is little value added to processing small payments for vendors because the transaction costs are high. With small changes to the U.S. Code, Congress can make these changes to the benefit of the government and the vendors on which it relies.

Implementation

Legislative Branch

- Amend 31 U.S.C. § 3902(c)(1) to change the $1 threshold for late interest payments to $15.

Executive Branch

- Amend 5 CFR 1315.10 and 5 CFR 1315.11 in accordance with legislative changes to the late interest payment threshold.
- Modify business processes for DFAS and DoD to accommodate the threshold change.

Note: Explanatory report language and draft legislative text can be found in the Implementation Details subsection at the end of Section 4.

Implications for Other Agencies

- The increased dollar threshold would apply to all other agencies subject to 31 U.S.C. § 3902.

[272] Calculation based on analysis of 14,195 MOCAS transactions in FY 2017 (information provided by DFAS). 8,679 of these transactions (38.9%) were below $20.
[273] Representatives from Aerospace Industry Association and DFAS, interviews with Section 809 Panel, May 2018.

RECOMMENDATION 56 IS A STAND-ALONE RECOMMENDATION ABOUT EQUIPMENT AND RECAPITALIZATION

Recommendation 56: Use authority in Section 1077 of the FY 2018 NDAA to establish a revolving fund for information technology modernization projects and explore the feasibility of using revolving funds for other money-saving investments.

Problem

The federal government's apparent inability to internally finance projects that show promise for improving agency efficiency and effectiveness—such as recapitalizing facilities, upgrading IT systems, and improving the energy efficiency of existing systems—frustrates federal agencies and contractors alike. In some cases, private contractors offer to finance such projects on behalf of federal agencies, only to be told such action is impossible under the budgetary *scoring* rules.

Background

The most important factors in determining whether or not a lease, lease–purchase, or other capital-intensive federal facility or equipment recapitalization or upgrade project is funded should be the validity of the requirement, whether the project is executed properly and delivers quality goods and/or services, and whether the price is fair. Notwithstanding, a project's budget score also can play a role in the government's decision to move forward with a project.

The manner in which a project is scored is governed by complex scorekeeping rules (also known as the scorekeeping guidelines) promulgated by OMB and Congressional Budget Office (CBO). The budget scorekeeping roles of OMB and CBO are an outgrowth of the modern era of concern about federal spending and deficits. The scorekeepers play a role analogous to an independent test and evaluation entity for weapons performance—enforcing a neutral set of rules to ensure a level playing field on which potential investments compete for funding.

The ability of a government agency to engage in a long-term capital or real property project is governed by the OMB A-11 scorekeeping rules (adopted in 1991).[274] These rules generally require that the entire amount of a long-term obligation be scored upfront in fiscal year 1, instead of spreading the obligation over each year of the project.

Perhaps because these rules have at times been perceived as too rigid, exceptions to the rules have occasionally been made. In addition, multiple mechanisms have been developed that ensure certain types of projects receive favorable scoring treatment or are otherwise exempt from the requirement to have full budgetary authority up front. For example, the exception for operating leases provides that the lease payments due in each year are scored only in that year, and not upfront. Energy savings performance contracts (ESPCs) and enhanced use leases promise increased resources through energy savings and other efficiencies that pay for themselves over time. DoD relies on these existing

[274] OMB Circular No. A-11, *Appendix B—Budgetary Treatment of Lease-Purchases and Leases of Capital Assets,* accessed November 3, 2018, https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a11_current_year/app_b.pdf.

authorities for efficient use of its real estate assets, so the first principle in this area should be to *do no harm* to this foundation when seeking even greater flexibility.

Additional flexibility could assist in ensuring that DoD's infrastructure needs are met and that additional exceptions could or should be drawn. CBO and OMB have historically been opposed to such mechanisms, although over time OMB has granted exceptions ad hoc. Some have suggested that CBO and OMB opposition has been driven in part by a reaction to the 2001 Air Force tanker lease proposal, which appears to have been attractive to the Air Force because the lease costs would not have to be paid until after the end of the Future Years Defense Program.

As such, any proposal to change the current scorekeeping rules should be tailored to meet the objectives behind the scorekeeping rules: ensuring that the budget-making process is as fair and transparent as possible.

Discussion

Revolving Funds for Money-Saving Investments

Federal law and regulations permit the use of private-sector capital to augment federal funds under certain circumstances. Among these mechanisms are Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs). These arrangements permit DoD to third-party financing as private contractors invest in energy-saving improvements on behalf of the federal government and are paid out of the resulting savings. Under OMB memoranda M-98-13 and M-12-21, OMB does not treat these facilities investments as capital improvements (which would require scoring the net present value of the government's obligations of the contract up front), but rather, scores payments to contractors on an annual basis as they are made.

In principle, the ESPC/UESC *safe harbor* approach could be applied to other money-saving investments, such as aircraft re-engining programs that promise a similar stream of savings in reduced fuel and maintenance costs. By mandating a minimum level of return on investment or payback period, and requiring that contractors be paid out of the savings, the government could ensure these programs would pay for themselves over time, rather than simply push off investment costs onto future taxpayers.

CBO and OMB have historically been opposed to additional mechanisms that would allow annual scoring of private financing mechanisms. The use of public, rather than private-sector, financing could be one way of avoiding this political problem. One potentially viable method of alternative public financing could be increased use of revolving funds.

In particular, the federal government could establish revolving funds with the express purpose of investing in money-saving improvements. Reimbursement of the revolving funds would be tied to money saved as a result of increased efficiencies. After an initial investment, the revolving funds should, in theory, pay for themselves. Because the financing mechanism would be internal to the government, this approach should not be subject to the OMB and CBO scoring problems hindering private-sector financing proposals.

Tying the reimbursement of the funds to any savings achieved would create several complexities. Agencies would be required to estimate future savings, which can be difficult and is subject to a number of assumptions. Actual savings would be difficult to determine because of external factors, such as increased operational tempo and changes in maintenance standards or schedules. Savings would appear in multiple accounts of different DoD organizations, requiring some kind of mechanism to ensure that entities realizing the savings would reimburse the entity paying the contractor bills.

The Information Technology Systems Modernization Funds authorized by Section 1077 of the FY 2018 NDAA is an attempt to address these issues, authorizing federal agencies to establish revolving funds for IT modernization projects. DoD elected not to take advantage of Section 1077 authority. In a memorandum to Congress, the DoD Chief Information Officer (CIO) stated, "The Department appreciates the subcommittee's advocacy of Defense IT systems, and the authority Modernizing Government Technology (MGT) Act provides. However, we believe our existing Working Capital Fund (WCF) structure, policies, and processes provide the type of flexibilities and incentives envisioned by the MGT Act."[275] DoD should still exercise this opportunity and put in place a pilot program for IT investments as authorized in the FY 2018 NDAA. The pilot's success would help determine whether a similar process could be applied toward other investments for which savings would be used to reimburse the fund and allow contractors to be paid on an annual basis. Re-engining aircraft is one area where such a model might be applied.

Revolving Funds Not Expressly Tied To Savings

The complexities associated with estimating future savings, and then accounting for those savings when they occur, could potentially be avoided by developing a method of public financing whereby repayments are tied to annual appropriations. This is the method endorsed by OMB and the current administration in the *Analytical Perspectives* volume of the FY 2019 budget, which proposes a Federal Capital Revolving Fund (FCRF) for investments in nondefense capital infrastructure. As OMB explained, "balances in the FCRF would be available for transfer to purchasing agencies to fund large-dollar capital acquisitions to the extent projects are designated in advance of appropriations Acts and the agency receives a discretionary appropriation for the first of a maximum of 15 required annual repayments."[276] Agencies would borrow from the FCRF to cover the full cost of acquiring a capital asset and then repay the FCRF over time using appropriated funds. Because "future discretionary appropriations will have to be used to repay the FCRF" rather than all from the agencies' discretionary budgets in the first year, OMB believes that this structure will "provide an incentive for agencies, OMB, and the Congress to select projects with the highest mission criticality and return."[277]

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[275] Chief Information Officer Memorandum to U.S House of Representatives, Committee on Oversight and Government Reform, Subcommittee on Information Technology, dated May 21, 2018.

[276] OMB, *An American Budget: Analytical Perspectives, Fiscal Year 2019,* February 2018, 119, accessed November 4, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/02/spec-fy2019.pdf. The principle in the fund would be provided by Congress through direct spending which would be subject to the PayGo requirements that any increase in direct spending be offset by reductions in other direct spending or an increase in revenue. This paper assumes that Congress will find such a fund a high enough priority that it will provide the requisite direct spending. The subject of this paper is the scoring by OMB of long-term projects whether reliant upon a federal capital revolving fund or otherwise.

[277] OMB, *An American Budget: Analytical Perspectives, Fiscal Year 2019,* February 2018, 120, accessed November 4, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/02/spec-fy2019.pdf.

If this approach is successfully implemented for federal civilian agencies, it may be useful for DoD as well. DoD should explore use of revolving funds for which reimbursement is tied to appropriations rather than savings.

Current and Past Program-Specific Interpretations to the Scoring Rules

DoD currently uses several mechanisms that allow supplementing federal funds with private-sector capital under specific circumstances, in addition to ESPCs and UESCs. Among those mechanisms are enhanced-use leasing, public–private partnerships (P3s), capital leases, and performance-based service contracts (e.g., for aircraft engine maintenance).

At times, OMB has interpreted the scoring rules as mandating differing treatment for these types of public–private endeavors. The deal structure determines whether a project must be scored upfront. For example, in 1997, OMB Director Franklin D. Raines issued guidelines (the Raines Memo) that provided extensive guidance on how different types of Military Family Housing Privatization Initiative (MHPI) transactions would be scored. Among other things, the Raines Memo gave DoD authority to convey property in exchange for housing or an equity investment in a limited liability company. Under these circumstances, there would be no scoring impact if there was no cash income or expenditure. According to an Army history of the MHPI program, it was this clear scoring guidance that enabled the privatization program to proceed.[278]

OMB has at times interpreted its scoring rules to exempt certain types of long-term projects, including those involving private capital, from being fully scored upfront. Commissioning a study of these past interpretations would allow better insight into why OMB scores certain types of projects differently than others. Understanding the factors that led to these scoring outcomes would provide additional predictability to both DoD and the private sector when considering pursuing such projects. The lessons learned could be used to identify candidates for future projects.

A Study of Mature Statutory and Regulatory Regimes from Other Jurisdictions

A form of financing public infrastructure that has gained traction in recent years in state and local jurisdictions, as well as internationally, is the P3. Jurisdictions that have recognized the benefits of P3s have adopted legislation and regulation to authorize and then guide their P3 programs. The federal government is outpaced by states such as Virginia and countries such as Canada when it comes to P3 program use. Many developing countries are in the process of putting in place such legislation.

Currently, no comprehensive statutory regime exists that governs circumstances under which DoD may make use of a P3. P3s are not appropriate for all situations, but when they are, they could be an additional tool to address DoD's infrastructure requirements. A study of mature P3-authorizing statutes and regulations from other jurisdictions could assist in determining whether the P3 model could be further implemented at the federal level and include analysis of how P3 projects would be scored by OMB.

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[278] Matthew C. Godfrey et al., *Privatizing Military Family Housing: A History of the U.S. Army's Residential Communities Initiative, 1995–2010* (Washington, DC: GPO, 2012), 41, accessed November 4, 2018, http://www.rci.army.mil/programinformation/docs/RCI_history.pdf.

Conclusions

DoD is unlikely to obtain approval for private financing of public investment projects under current conditions because such financing could be seen as a maneuver to get around the budget rules and require future generations to pay for today's investments. Internal investments in money-saving efficiencies (such as upgraded IT systems or more fuel-efficient engines) may pay for themselves out of future operation and maintenance funds savings. In these cases, there is a public financing alternative that may be acceptable: the use of a revolving fund that provides financing for an initial set of investments. If the savings from the initial investments can be tracked and used to reimburse the revolving funds, additional money-saving investments could follow.

DoD could conduct studies to assess whether other approaches to financing public projects could be viable. For example, the recently proposed FCRF is intended to be a revolving fund that is reimbursed out of annual appropriations, instead of from savings. Although the FCRF is intended to fund investments in civilian infrastructure, DoD could study whether such a model would work for defense infrastructure and could explore the characteristics that led OMB to interpret its budget scoring rules in favorable ways (i.e., from lower upfront scores to the continuation of individual projects or programs, including projects and programs that employ private sector financing). Better predictability of how projects and programs will be scored will encourage initiation of such projects or programs, or a decision not to begin at all. Models of mixed public–private financing, such as the P3s, could be studied to determine whether such a model would be as feasible at the federal level as they are at state and local levels as well as internationally.

The Secretary of Defense should issue a memorandum requiring DoD to use the authority in Section 1077 of the FY 2018 NDAA to establish a revolving fund for IT modernization projects. This revolving fund should serve as a pilot program to prove the feasibility of using the revolving fund mechanism to finance continuous, money-saving upgrades to DoD systems and facilities. To ensure the success of the pilot program, DoD should establish specific guidance for estimating future savings from IT investments financed through the revolving fund, tracking actual savings and identifying the accounts in which they accrue, and ensuring the transfer of savings to the extent needed to reimburse the revolving fund for initial investments.

If DoD is able to navigate these hurdles and successfully implement the IT revolving fund on an ongoing basis, it should seek additional authority to use revolving funds for other money-saving investments, such as aircraft re-engining programs.

- DoD should commission a feasibility study for using the revolving fund for capital projects, to be reimbursed annually out of appropriations, similar to the FCRF.
- DoD should analyze the characteristics of projects and programs that OMB has employed when accepting that such projects and programs do not require full, upfront scoring, whether the projects are privately or publicly financed. The goal of the study would be to make transparent the additional, and currently unstated, factors that OMB will consider.
- DoD should commission a study of mature P3 authorizing statutes and regulations from which to develop and adopt federal level P3 statutes and regulations for DoD to promote infrastructure projects in partnership with the private sector.

Implementation

Legislative Branch

- Authorize $100 million to be appropriated to the Secretary of Defense for a revolving fund established under Section 1077 of the FY 2018 NDAA (Pub. L. No. 115–91; 40 U.S.C. § 1130 note) to fund an IT systems modernization pilot.
- Appropriate $100 million for a revolving fund established under Section 1077 of the FY 2018 NDAA (Pub. L. No. 115–91; 40 U.S.C. § 1130 note) to fund an IT systems modernization pilot.
- Authorize the transfer of savings back to the revolving fund, to the extent needed to reimburse the revolving fund for initial investments in money-saving IT projects. These transfers would be subject to the appropriations process under the same terms and conditions laid out in section 1077.

Executive Branch

- Issue a decision memorandum directing establishment of a pilot Information Technology Systems Modernization Fund pursuant to section 1077 of the FY 2018 NDAA.
- Direct the Under Secretary of Defense(Comptroller) (USD(C)), in consultation with the CIO, to provide guidance for estimating future savings from IT investments financed through the revolving fund; tracking actual savings and identifying the accounts in which they accrue; and ensure the transfer of savings to the extent needed to reimburse the revolving fund for initial investments.
- Request legislative authority—on completion of one successful round of investments, up to and including reimbursement of the revolving fund for initial investments—to establish additional revolving funds for other money-saving investments, such as aircraft re-engining programs.
- Commission studies of the following:
  - The advantages and disadvantages of a revolving fund for capital projects, to be reimbursed annually out of appropriations, similar to the FCRF.
  - The factors OMB uses when agreeing to exceptions to the current budget scoring rules, including for specific projects and programs.
  - Mature P3 authorizing statutes and regulations from which to develop and adopt federal P3 statutes and regulations for DoD to promote infrastructure projects in partnership with the private sector and to study the scoring of such projects by OMB.
  - Other executive branch changes to analyze mechanisms to improve industrial capitalization. Recommended studies are included in the Section 809 Panel's *Volume 3*, Section 2.

Note: Explanatory report language and draft legislative text can be found in the Implementation Details subsection at the end of Section 4.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

RECOMMENDATIONS 57 AND 58 SHARE THE COMMON THEME: EXTENDED CANCELLATION OF FUNDS

Industry groups and government officials have identified a need to extend the expiration duration of appropriated funds before cancellation from 5 years to 10 years. Two problems drive the need to extend the deadline for cancellation of funds: (a) funding periods are not currently aligned with today's acquisition and delivery of increasingly complex weapon systems, and (b) there is a backlog of over-aged contracts to be audited. Both of these problems have implications for putting current-year funds at risk because the government is still liable for paying contracts (previous year's obligations), whether or not the funds have expired. Having to use current-year funds to pay contracts with cancelled funds contradicts the original intent of those appropriations by Congress. It also increases workload and cost for both industry and government agencies by placing focus on cancelling funds versus contract close-out.

RECOMMENDATIONS

Recommendation 57: Modify fiscal law to extend the duration of when funds cancel from 5 years to 8 years in expired status to align program acquisitions with funding periods and prevent putting current funds at risk and to support meeting appropriation intent.

Problem

Since the early 1990s, when Congress enacted the 5-year time limit on expired funds, DoD weapon systems and the methods used to contract for them have become more complex. By law, DoD has set periods within which it is required to obligate and disburse appropriated funds, referred to here as fund periods (obligation period based on the type of appropriation/expiration period of 5 years/cancelation). Updating the time of expired funds from 5 years to 8 years would align the fund periods with how programs are contracted, executed, and closed out.

Background

The current 5-year term for expired funds deadline (31 U.S.C. § 1552) specifies, "On September 30th of the 5th fiscal year after the period of availability for obligation of a fixed appropriation account ends, the account shall be closed and any remaining balance (whether obligated or unobligated) in the account shall be cancelled and thereafter shall not be available for obligation or expenditure for any purpose."[279] The deadline was originally codified in the FY 1991 NDAA (Pub. L. No. 10–510) as part of a broad reorganization of certain U.S. fiscal law provisions.[280] In the same NDAA, Congress provided that current appropriation accounts could be used to pay for obligations chargeable from closed

[279] Procedure for appropriation accounts available for definite periods, 31 U.S.C. § 1552.
[280] See Section 1405 of FY 1991 NDAA, Pub. L. No. 101-510 (1990).

appropriation accounts with a stipulation that this use "may not exceed an amount equal to 1 percent of the total appropriations for that account."[281]

Prior to 1990, DoD obligations made but not liquidated were placed into a merged (M) account at the Department of Treasury. There was a 2-year period during which funds retained their fiscal year identity after their availability for new obligations expired. Beyond this 2-year span, unobligated funds entered *merged surplus* accounts and already obligated funds entered M accounts.[282] Agencies were then able to disburse money from these accounts irrespective of fiscal year, provided they were used for the same general purpose for which Congress had originally appropriated the funding. DoD was able to access these appropriated funds without having to obtain authorizing legislation, appropriations legislation, or even reprogramming approval from Congress. This ability provided the defense acquisition system with a high degree of fiscal flexibility.

Congress enacted the 5-year time limit on expired funds in 1990 as a reaction to GAO reports that DoD spent large amounts of money using funds from the *M accounts*. One particular example cited was the Air Force contract for more than a billion dollars in upgrades to the B-1 bomber using merged account funds from the Treasury. The B-1 bomber was a high-interest item to members of Congress and the Air Force's use of the merged accounts to contract for upgrades was viewed as a circumvention of congressional oversight and prerogative. GAO noted that, as of 1990, the Army's Operation and Maintenance merged surplus account still contained spending authority dating back as far as 1956.[283] This situation resulted in the 1990 reductions in flexibility, but the expired funds deadline has been unchanged since 1990, and the basis for establishing a 5-year expiration is unclear.

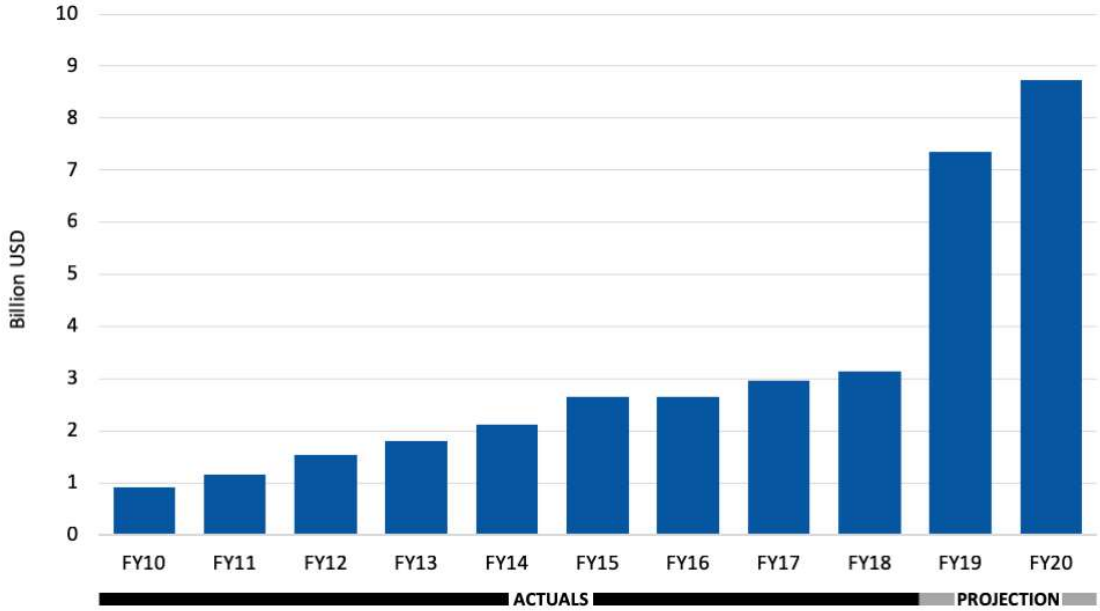
Discussion

As a result of the FY 1991 NDAA (Pub. L. No. 101–510), when DoD exceeds the expired funds period, the appropriated funds cancel and are no longer available for payment. This legal time limit on payments saves no money for taxpayers or DoD as the government remains responsible for paying contractors for their work despite cancelation of appropriated funds. Instead DoD pays contractors using appropriations that have not yet cancelled (current appropriations), harming existing programs and DoD strategic interests, as well as undermining the original intent of the appropriators.

Figure 4-17 reflects that $2–3 billion was spent of current-year appropriations in FY 2016 and FY 2017 on cancelled appropriation accounts. Defense Contract Management Agency (DCMA) also projects cancelling-year actions potentially reaching $8.74 billion of current funds being at risk in the near future. DCMA will work to reduce this projection prior to FY 2020.

[281] Availability of appropriation accounts to pay obligations, 31 U.S.C. § 1553(b)(2).
[282] An Act to revise, codify, and enact without substantive change certain general and permanent laws, related to money and finance, as title 31, United States Code, "Money and Finance," Pub. L. No. 97-258 (1982).
[283] GAO, *The Government's Use of "M" and Merged Surplus Accounts, GAO/T-AFMD-90-26,* August 2, 1990, accessed November 1, 2018, https://www.gao.gov/assets/110/103446.pdf.

Figure 4-17. DCMA Projected Cancelling Year Funds at Risk ($B)[284]



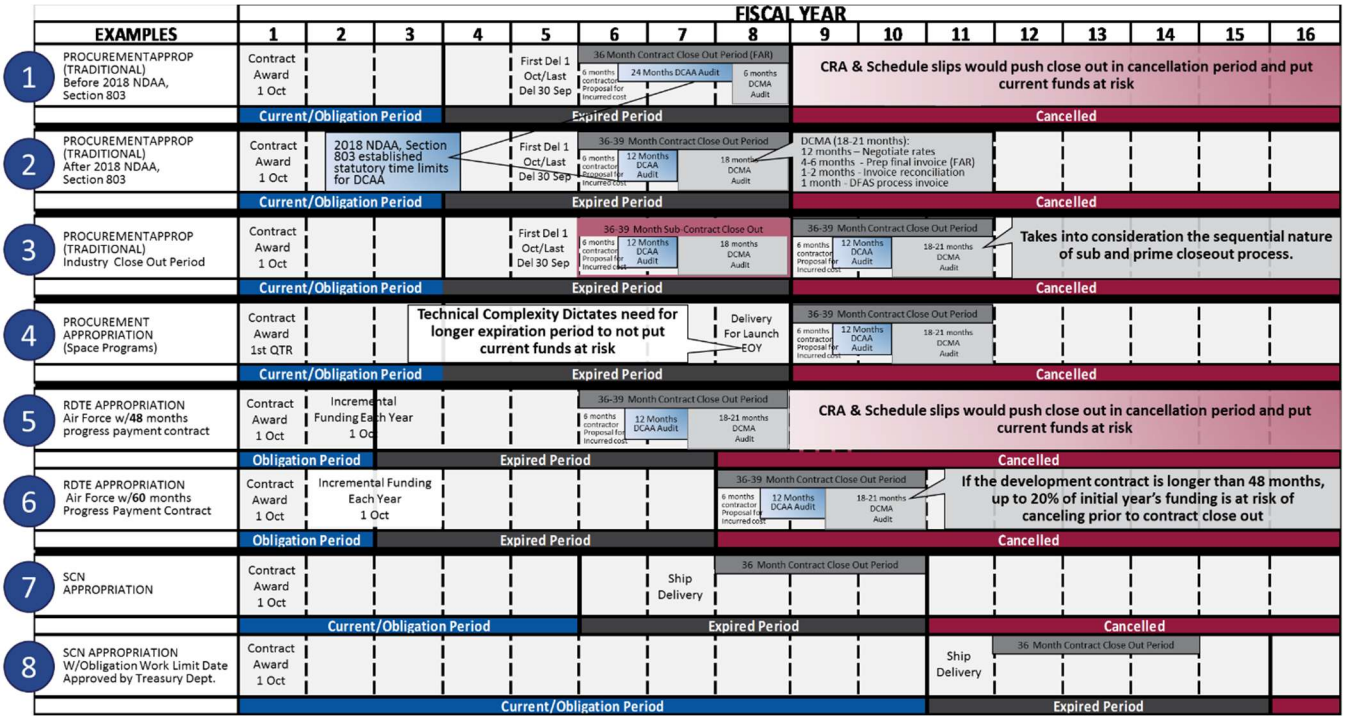
Paying for obligations chargeable to cancelled appropriation accounts creates additional workload and cost for DoD and contractors. A 2018 paper by defense industry representatives and DoD officials listed several cost estimates associated with current rules, including the following:[285]

- $56 million per year in administrative activity by DoD and its contractors
- $1.2 million in administrative costs to obtain and pay for DoD contractor invoices with cancelled funds

When the 5-year expiration period was established, neither Congress nor DoD recognized how difficult it would be to close out contracts within the required statutory expiration period of 5 years. Figure 4-18 (also included as Attachment 4-1) depicts these complexities with varying examples of how fund periods (obligation/expiration/ cancelled) are associated with acquisition and delivery of weapon systems. The graphic portrays examples with different appropriations and the timelines associated with closing out flexibly priced contracts involving industry, Defense Contract Audit Agency (DCAA), and DCMA. The subsequent examples describe the complexities and how difficult it is to close out contracts within the statutory fund periods (Obligation/Expiration/Cancelled).

[284] Data points gathered from DCMA response to the RMD700A2 from the PBR19-23 cycle, email to Section 809 Panel, July 2, 2018.
[285] Statistics reported by DCMA, DFAS, and AIA in reports provided to Section 809 Panel, April 2018.

Figure 4-18. Contract Closeout Complexities to Stay Within Statutory Fund Periods



Note: To see a larger-scale version of this figure, see Attachment 4-1 at the end of Section 4.

Example 1

Based on contract closeout time standards provided by the FAR paying out a contract should take no longer than 3 years.[286] Example 1 is a traditional procurement, with no schedule slips or continuing resolutions. It reflects that contract closeout could be accomplished prior to funds being cancelled.

Example 2

Example 2 reflects incorporation of Section 802 of the FY 2018 NDAA, which decreased the statutory time limit for DCAA to complete incurred cost audits, but offered more time for DCMA. Although the FAR shows 6 months for DCMA to perform closeout activities, on average it takes approximately 12 months for DCMA to negotiate final closeout rates with industry and then contractors have another 120 days to submit their final invoice, as well as an additional 1 to 2 months for invoice reconciliation. After reconciliation, DFAS has 30 days to process the invoice. Implementation of the FY 2018 provision gives DCMA time needed to conduct contract closeout activities.

Example 3

Example 3 depicts industry perception of how long it takes to close out a contract—approximately 78 months. The 78-month period is driven by the time it takes prime contractors to receive final invoices from subcontractors. The depiction doubled the time recommended by the FAR. The timeline is also affected by variation of vendors' calendar accounting cycles. Vendors cannot submit their incurred-cost proposal to DCMA until after the accounting cycle ends and all costs have been

[286] Closeout by the Office Administering the Contract, FAR 4.804-1(a)(1-4).

identified. This sequential process needs concurrent improvements. Industry experts believe eliminating or modifying the expired period time limits to a duration commensurate with the complexity of the acquisition process would generate substantial cost savings for DoD without creating risk for U.S. Taxpayer.[287]

Not only does it take longer to close out a contract than the FAR recommends, but also the majority of cancelling-year risk exposure is related to currently active contracts (as opposed to those contracts in closeout). A DFAS root cause data analytics initiative noted that 66 percent and 68 percent of cancelling funds in FY 2017 and FY 2018 respectively are against active contracts. Table 4-6 provides breaks out of cancelled and cancelling funds by category.

Table 4-6. DFAS Data Analytics Root Cause Analysis[288]

FY 2018 Cancelled Dollars—MOCAS DCMA and Non-DCMA Administered (July 2018)					
	ACRNS	% of ACRN	Contracts	$Billion	% of Dollars
Active Contracts	6710	34%	2150	1.078	66%
Pending Closeout	12233	61%	5299	0.434	27%
Litigation	947	5%	524	0.117	7%
Pending Adjustment	35	0%	21	.004	0%
Total	19925			**1.634**	

FY 2018 Cancelled Dollars—MOCAS DCMA and Non-DCMA Administered (July 2018)					
	ACRNS	% of ACRN	Contracts	$Billion	% of Dollars
Active Contracts	9460	34%	2150	2.385	68%
Pending Closeout	17462	62%	5299	0.900	26%
Litigation	1221	4%	524	0.199	6%
Pending Adjustment	20	0%	21	0.004	0%
Total	28163			3.488	

Ongoing DFAS analysis with the Military Services continues to illuminate the relationships between cancelling-year risk exposure and contract type, incentives, and fiscal policy (e.g., effect of full funding and antecedent liabilities).

[287] AIA, meeting with Section 809 Panel, July 30, 2018.
[288] DFAS representatives, email to Section 809 Panel, July 26, 2018.

Example 4

Example 4 depicts a long-duration contract for which delivery of an end item occurs at the end of the expiration period, thus contract closeout cannot begin until the funds have already cancelled. DoD requires longer delivery schedules when procuring technically complex systems, such as the satellite in this example. This contract type potentially places current funds at risk.

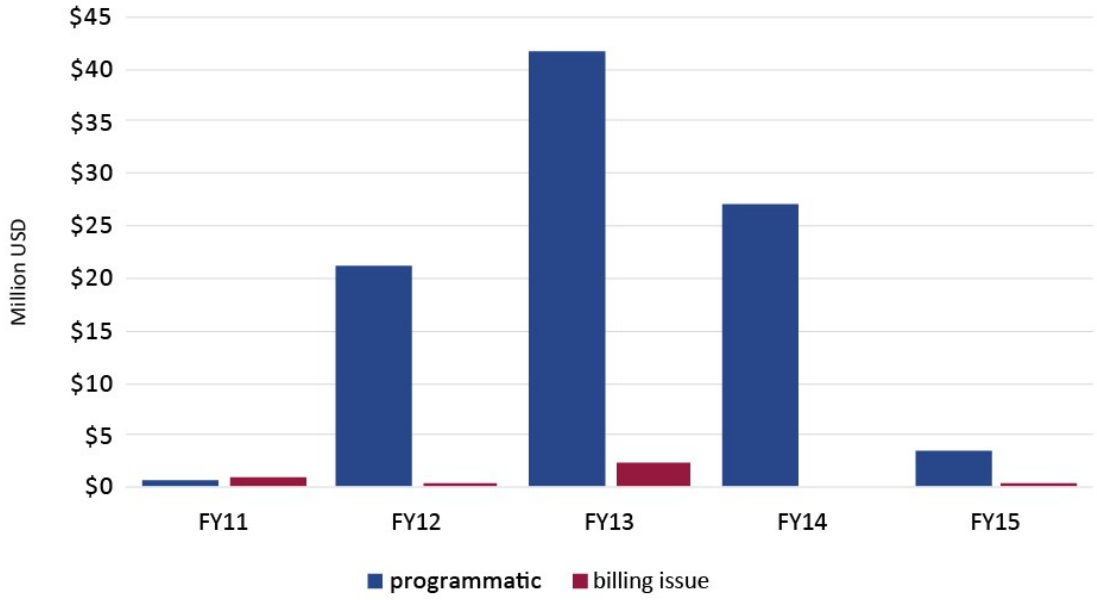
Examples 5 and 6

Many RDT&E funded efforts are at risk of having cancelling-year funds problems. As shown in Examples 5 and 6, if an RDT&E contract is longer than 48 months, it is likely that a portion of the initial year's funding for that contract will cancel prior to final payment. This situation happens because many RDT&E funded fixed-price contracts have progress payments limited to 80 percent of total cost, and the final 20 percent is not paid until contract closeout. DFAS default payment method is to use 80 percent of each year's funding and hold the other 20 percent for the final payment. Although RDT&E efforts are funded incrementally, up to 20 percent of the initial year's funding of an RDT&E effort may not be paid until the final closeout. Program contracts awarded prior to December 2017 could make special payment instructions (such as paying oldest-year funds first) in their contracts to mitigate the risk of having cancelling funds. Allowance for these special payment instructions was removed from the DFARS, Procedures Guidance and Information, so DoD can no longer use special instructions as a payment methodology when the line item is multifunded. Eliminating this option for dealing with cancelling funds leaves more funds at risk of cancelling. Because of the change, those contracts with special payment instructions now must be manually processed and reconciled, which increases workload at DFAS to process the special payments.

Examples 4 through 6 could place current funds at risk due to technical complexities, and DoD and industry spend many hours working to lower the risk, whether the contract is in active status or closing. Similar to the DFAS Data Analytics, the Space and Missile Systems Center (SMC) at Los Angeles Air Force Base analyzed upward obligation adjustments (UOAs) processed during a 5-year period to pay cancelled-year bills. For UOAs exceeding $10,000, SMC examined the specific cause for delayed billing and payment. SMC found that 97 percent of $116.8 million cancelled-year bills were associated with programmatic issues (e.g., hardware integration issues) on active contracts as opposed to contracts pending closeout by DCMA. SMC found that $102 million of the $116 million in cancelled-year invoices analyzed could have been paid out from the original appropriation if the period of availability was extended another 2 years. Figure 4-19 illustrates a graphical depiction of SMC's breakout of cancelled year bills by reason.[289]

[289] SMC, email to Section 809 Panel, July 24, 2018.

Figure 4-19. SMC Cancelled Year Bills Analysis (more than $10K) By Reason



Examples 6 and 7

Examples 6 and 7 in Figure 4-18 are a Navy shipbuilding and conversion account, which has a 5-year obligation period. In accordance with the FMR, the Navy can add an additional 5 years to the obligation work limit date with approval from the Department of the Treasury.[290] Having a longer obligation period allows Navy shipbuilding to close out contracts prior to funds expiration and not place current funds at risk.

Conclusions

Industry groups and government officials have advocated for a permanent change to U.S. fiscal law extending the funds cancellation deadline from 5 to 10 years.[291] A permanent change to 8 years would better align the funding periods with how complex weapon systems are administered. This change would provide contract administration organizations that deal with contract closeouts, such as DCMA and DFAS, with the time required to close out existing contracts without accessing current-year funds and provide time needed to ensure the costs proposed are allowable, allocable, and reasonable. It could, in some cases, reduce the wait time for industry to receive payment.

Extending the expired funds period would in no way change the intended use of expired funds. The expired funds cannot be used for new obligations. Congress should extend the expiration period to 8 years, allowing complex program acquisitions ample time to close out contracts without placing current funds at risk. This practice would arguably serve the interests of Congress, by aligning disbursements more closely with the original intent of appropriations laws. It also would reduce the burden caused by addressing cancelling-year efforts and refocus efforts on actually closing out contracts.

[290] Shipbuilding and Conversion (SCN), Navy Appropriation, DoD FMR, Volume 3, Chapter 10, Section 100203.
[291] Representatives from defense agencies and defense contractors, discussions with Section 809 Panel, April and May 2018.

Implementation

Legislative Branch

- Amend 31 U.S.C. § 1552 to extend time available for expired funds from 5 to 8 years.

Executive Branch

- Amend appropriate portions of the DoD Financial Management Regulation, Volume 3, to reflect the change from 5 years to 8 years.
  - Chapter 10, Accounting Requirements for Expired and Closed Accounts, Sections 1002.C, 100302.A, 100303.A, 100304.D.1-2, 100305.B.1-2, 100312.B.1, 100314.A.1, 100314.B.3.e.
  - Chapter 11, Unmatched Disbursements, Negative Unliquidated Obligations, and In-Transit Disbursements, Section 1102.F.
  - Chapter 13, Receipt and Distribution of Budgetary Resources Departmental-Level, Section 130202.A.2.b, 130208.B.
  - Chapter 15, Receipt and Distribution of Budgetary Resources – Execution Level, Section 150305.A-B, 150306.A & C.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 4.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Recommendation 58: Address the issue of over-age contracts through (a) establishing an end-to-end, integrated, streamlined process, (b) codifying DCMA's Quick Close Out class deviation in the DFARS, and (c) extending DCMA's Low Risk Quick Close Out initiative by 2 years.

Problem

If Recommendation 57 is adopted, and the 5-year cancellation deadline is lengthened to 8 years, it may, in the short term, result in reduced pressure on the contract administration organizations that deal with contract closeouts. DCMA currently has a large backlog of approximately 65,000 over-aged contracts and this issue needs to be resolved to allow agencies to reach a workload steady state of closing out contracts. Resource constraints and processes that limit the ability to close out contracts appear to cause this backlog. The current DCMA backlog represents only a portion of the contracts administered by DoD and the entire scope of over-aged contracts needs to be identified. A cross-organization mitigation strategy with streamlined process improvements would preclude this situation from reoccurring and placing current funds at risk of use for cancelled bills.

Background

The primary focus of the acquisition system is the selection and administration of contracts. Work on a contract can go on long after the delivery of the last product or the performance of the last service with contract closeout the final step in the contract lifecycle.

Contract closeout is a complex set of processes and subprocesses that includes the contractor and government working together to confirm all deliveries or performance services have been properly completed, settling up the final contract indirect costs rates, reconciling the various type and year of funds used on the contract, dispositioning residual inventory or government property, disposing of any classified information, addressing any patents filed by the contractor related to work performed under the contract, addressing any open warranty matters, settling any partial terminations of the work to be performed, resolution of any contract disputes or other legal matters, and more.

Closeout can be a relatively simple process in firm-fixed-price contracts but can be enormously complex for flexibly priced (fixed-price-incentive and cost-reimbursement) contracts. Among the most time-consuming of these closeout tasks is the settling of the contractor's final indirect costs and the settlement of the indirect costs are found to be the root cause of the overaged contract backlog.

A major component of any flexibly priced contract is the cost associated with general and administrative expenses, labor rates, receiving and inspection costs and other essential, but indirect costs. At the time a contract is priced, negotiated estimates of indirect rates are used to establish billing rates. At the end of each contractor fiscal year in which the contract was performed the contractor must prepare a final indirect cost overhead rate proposal, including any final indirect costs applicable to any corporate headquarters. The final indirect-costs-rate proposal for each year is submitted to DCAA for audit and DCMA for final negotiation of all allowable and allocable indirect costs.

The process described above for the prime contractor's direct and indirect costs is repeated for each flexibly priced subcontract the prime may have awarded in support of the prime contract. The prime contractor cannot submit its final indirect-cost proposal to the government for audit and negotiation until all its flexibly priced subcontracts have been settled and the final costs incorporated into the prime's final cost proposals for submission to the government.

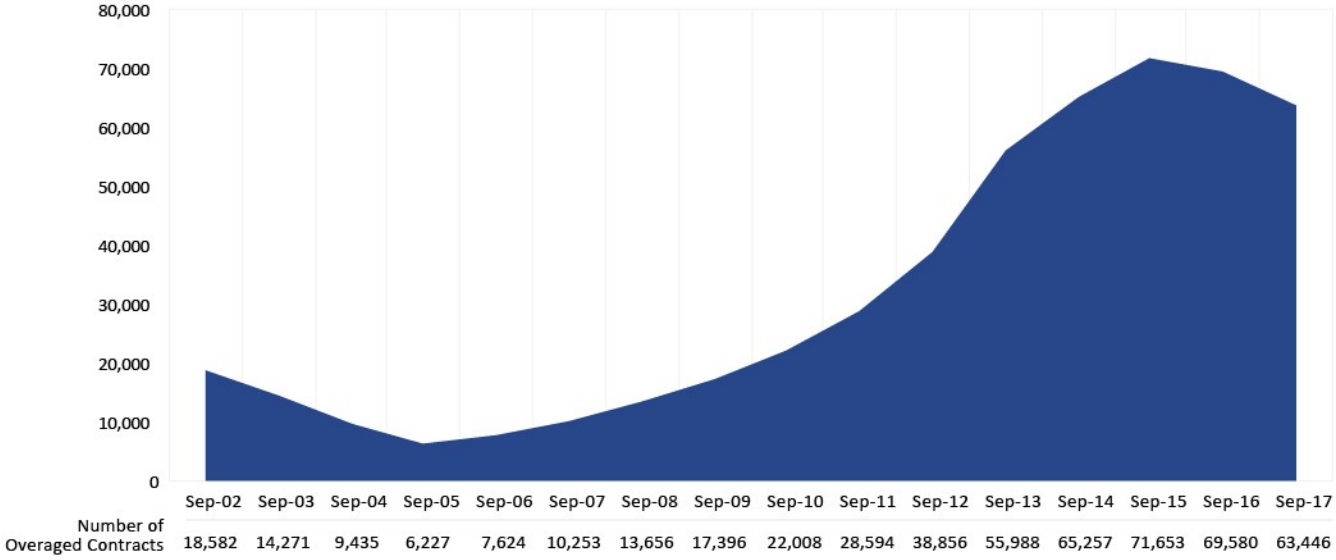
This lengthy contract closeout process starts when the contractor prepares a final indirect-cost proposal including all direct costs (including final subcontract costs) and the negotiated final overhead rates for each year of performance. The final indirect-cost proposal is submitted to DCAA for audit. DCAA provides audit and financial advisory services to DoD and other federal entities responsible for acquisition and contract administration. When DCAA completes the audit, then DCMA conducts final negotiations. Once complete, any excess funds are deobligated or any shortage of funds is addressed by working through DFAS. DCMA works directly with defense suppliers to help ensure DoD, federal, and allied government supplies and services are delivered on time, at projected cost, and with all performance requirements met.

"DCMA professionals serve as 'information brokers' and in-plant representatives for military, Federal, and allied government buying agencies — both during the initial stages of the acquisition cycle and throughout the life of the resulting contracts. Before contract award, DCMA provides advice and

information to help construct effective solicitations, identify potential risks, select the most capable contractors, and write contracts that meet the needs of customers in DoD, federal, and allied government agencies. After contract award, DCMA monitors contractors' performance and management systems to ensure that cost, product performance, and delivery schedules are in compliance with the terms and conditions of the contracts."[292] DCMA serves as the ACO with responsibility for more than 20,000 contractors and more than $223 billion in unliquidated obligations.

In 2011, Congress expressed concern about the backlog of incurred cost audits at DCAA and directed GAO to review reasons for the backlog, as well as DCAA's plan to address it.[293] At that time, DCAA had a backlog of more than 21,000 incurred cost audits.[294] Since 2011, DCAA has reduced its inventory of contractors' incurred cost proposals awaiting audit by about half to 14,208, and DCAA has substantially reduced its backlog of older proposals.[295]

Figure 4-20. DCMA Historical Over-aged Contract Backlog[296]

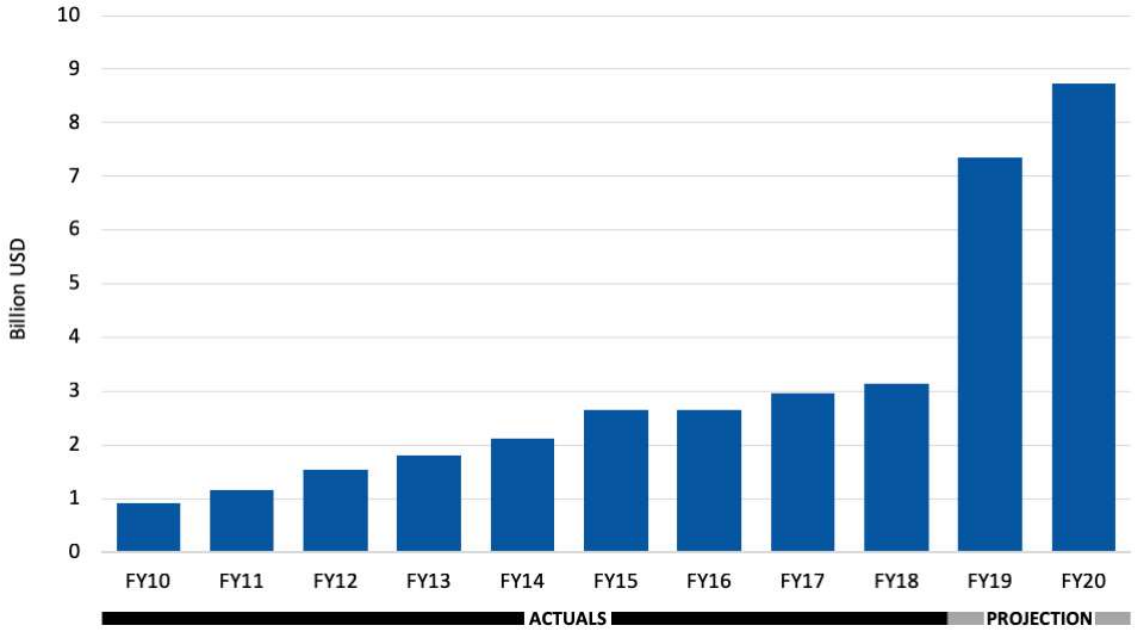


DCAA's focus on completing incurred-cost audits has caused the DCMA contract-closeout backlog to increase. It is not a one-for-one relationship. Each incurred cost audit may have many contracts associated with it. Currently, DCMA has a backlog of approximately 65,000 over-aged contracts and can complete an average of 18,000 contracts a year. Figure 4-20 above reflects the impact of the DCAA focus to reduce the incurred cost audit backlog starting in 2011. At the same time, DCMA has been prioritizing upcoming cancelling-year invoices versus actually closing out the contract. This is

[292] "About the Agency," Defense Contract Management Agency, accessed November 1, 2018, http://www.dcma.mil/About-Us/.
[293] GAO, *Defense Contracting: DOD Initiative to Address Audit Backlog Shows Promise, but Additional Management Attention Needed to Close Aging Contracts, GAO-13-131,* December 2012, accessed September 15, 2017, http://www.gao.gov/assets/660/650970.pdf.
[294] DCAA, *Report to Congress on FY 2016 Activities: Defense Contract Audit Agency,* March 31, 2017, 9, accessed November 1, 2018, https://www.dcaa.mil/Content/Documents/DCAA_FY2016_Report_to_Congress.pdf.
[295] GAO, *Federal Contracting: Additional Management Attention and Action Needed to Close Contracts and Reduce Audit Backlog, GAO-17-738,* September 2017, 1, accessed June 11, 2018, https://www.gao.gov/assets/690/687497.pdf.
[296] DCMA graph, email to Section 809 Panel, August 9, 2018.

necessary in order to prevent using current appropriations to pay final invoices as shown in the Figure 4-21. DCMA's objective is to reduce this projection prior to those funds actually being cancelled.

Figure 4-21. DCMA Projected Cancelling Year Funds at Risk ($B)[297]



Discussion

In addition to addressing the DCMA over-aged contract backlog, streamlining initiatives need to be implemented to prevent future incurred- cost audits and over-aged contract backlogs. Research shows that initiatives are being developed and implemented as a result of three things: (1) the Section 809 Panel *Volume 1 Report,* (2) GAO reports, and (3) emphasis by DCMA senior leadership.[298]

Section 809 Panel

The Section 809 Panel recommendations in *Volume 1*, Section 2: Contract Compliance and Audit, proposed initiatives to prevent backlogs of incurred cost audits such as (a) providing flexibility to contracting officers and auditors to use audit and advisory services when appropriate, (b) reviewing the roles of DCAA and DCMA to ensure appropriate alignment and eliminate redundancies, (c) establishing statutory time limits for defense oversight activities, and (d) clarifying and streamlining the definition of and requirements for an adequate incurred cost proposal to refocus the purpose of DoD's oversight.

GAO and Commission on Wartime Contracting

GAO reports that the Defense Procurement and Acquisition Policy Group was required to establish the Contract Closeout Working Group in September 2014 to improve and streamline the contract closeout process, including policy revisions and technology updates to its systems, with no projected

[297] Data points gathered from DCMA response to the RMD700A2 from the PBR19-23 cycle, email to Section 809 Panel, July 2, 2018.
[298] DCMA response to the RMD700A2 from the PBR19-23 cycle, email to Section 809 Panel, July 2, 2018.

completion date.[299] The Commission on Wartime Contracting noted the rapidly growing incurred-cost backlog at DCAA in its final report in 2011. The commission found that Congress did not provide DCAA and DCMA adequate resources and staffing to accomplish their respective missions. The commission also recognized the difficulty placed on defense contractors when delays in incurred cost audits leave the contractors facing cash management problems.

DCMA Initiatives

DCMA recognized the need to institute streamlining initiatives to address the over-aged contract closeouts by issuing a DCMA Quick-Closeout Procedure Class Deviation. This deviation was issued on August 15, 2017, but has a sunset date of September 30, 2020. It streamlines the quick-closeout process only for DCMA's ACOs by removing requirements to obtain an audit report or Low-Risk Adequacy Memorandum from DCAA prior to settling quick-closeout rates. It also authorizes ACOs to settle final overhead rates and close any and all physically complete contracts regardless of dollar value or the percent of unsettled direct and indirect costs allocable to the contracts.[300]

DCMA recently released new guidance for ACOs to perform the Low Risk Quick Closeout Process (LRQCO). This initiative was released April 13, 2018, and has a sunset date of September 30, 2020. It allows ACOs to close out low-risk contracts with less than $750,000 of remaining funds by accepting the contractor's indirect rates through a bilateral agreement. Following this process means the ACO does not have to wait on final DCAA audits of the contractor's rates or negotiate the rates with the contractor. This new streamlined initiative will help reduce the over-age contracts each year with approximately 40,000 contracts currently in this category. [301]

Another initiative DCMA is pursuing is to no longer accept non-core services contracts, which are not included in DCMA's core mission requirements. This could mean a reduction of approximately 5,000 contracts per year that could potentially become over-aged and have cancelling funds within DCMA. Although this initiative could ultimately move the work load back to the services and increase their over-aged contract backlog.

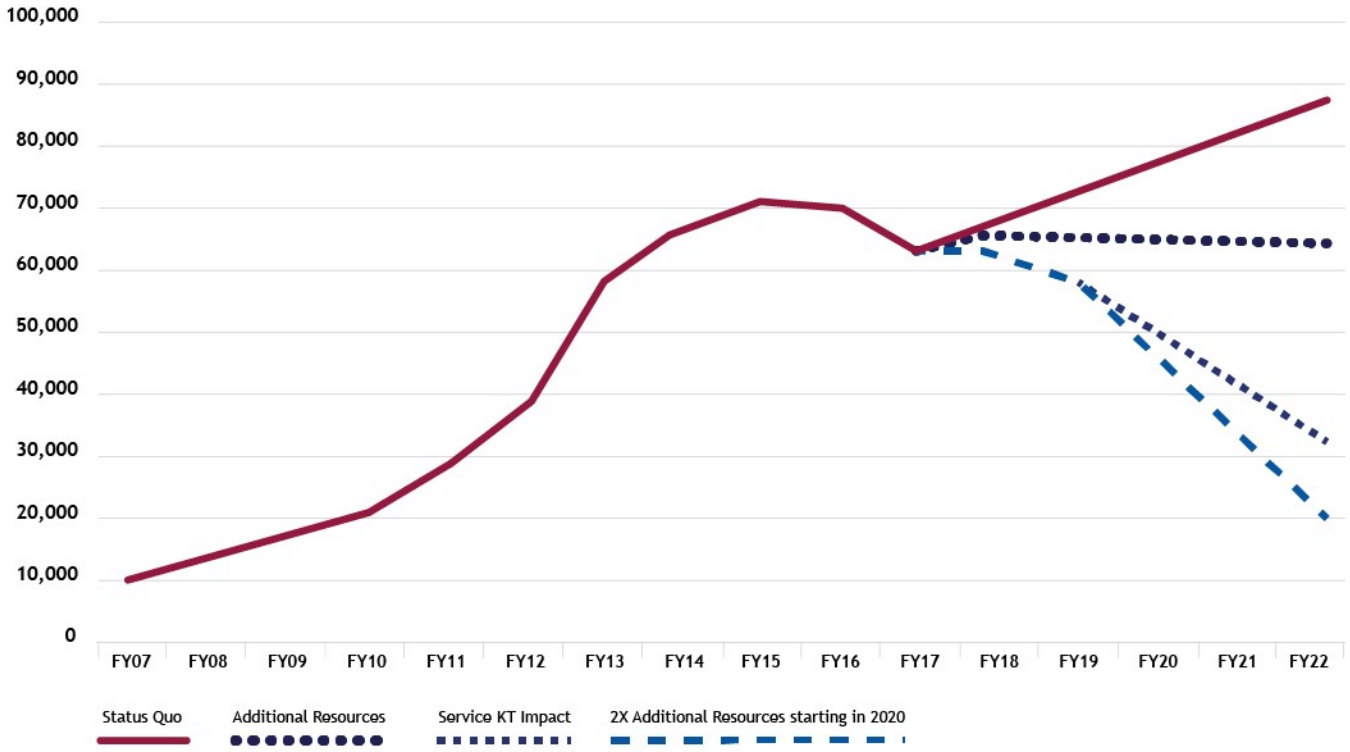
DCMA has partnered with DCAA to prioritize audits and emphasize audits with cancelling funds. This partnership allows them to actually perform the audit to close out the contract rather than focusing on interim billing for cancelling funds. DCAA now has the audit plan with DCMA priorities (cancelling funds) through FY 2020.

The streamlining initiatives reflect DCMA and external agencies' recognition that the over-aged contract backlog needs to be addressed, but these initiatives will not fully remedy the existing backlog of approximately 65,000 over-aged contracts. The existing backlog can only be mitigated by cross-organization monitoring and discipline. As shown in Figure 4-22, DoD recognized that DCMA needed additional resources. DoD provided funding for 30 additional full-time equivalents (FTEs) starting in FY 2019. DCMA developed the Figure 4-22 burn-down plan based on those 30 additional FTEs and the

[299] GAO, *Federal Contracting: Additional Management Attention and Action Needed to Close Contracts and Reduce Audit Backlog, GAO-17-738,* September 2017, 1, accessed June 11, 2018, https://www.gao.gov/assets/690/687497.pdf.
[300] DCMA Memorandum to DCMA Component Heads, *DCMA Quick-Closeout Procedure Class Deviation (DCMA 17-142),* August 15, 2017.
[301] DCMA Memorandum to DCMA Component Heads, *DCMA Low Risk Quick Closeout Initiative,* April 13, 2018.

implementation of initiatives described in the discussion above. The projection below also reflects that DCMA will still not be able to fully address the over-aged contract backlog by FY 2022. The light-blue dashed line depicts the point that even if the workforce were augmented again with an additional 30 FTEs starting in FY 2020, DCMA would still not reach a steady state by FY 2022. To reach a steady state workload, DCMA would need process improvements and possibly additional resources to address approximately 15,000 over-aged contract audits annually for 3 years starting in FY 2020, and the additional resources would require approximately $3.5 million or more annually. Because DoD could spend up to $3.5 million of current-year funds to pay cancelled bills, one might suggest applying those dollars to remedy this issue. But these current-year funds were originally appropriated for other requirements and that would contradict the original intent of the appropriation by Congress.

Figure 4-22. DCMA Over-aged Contract Burn-down Projection

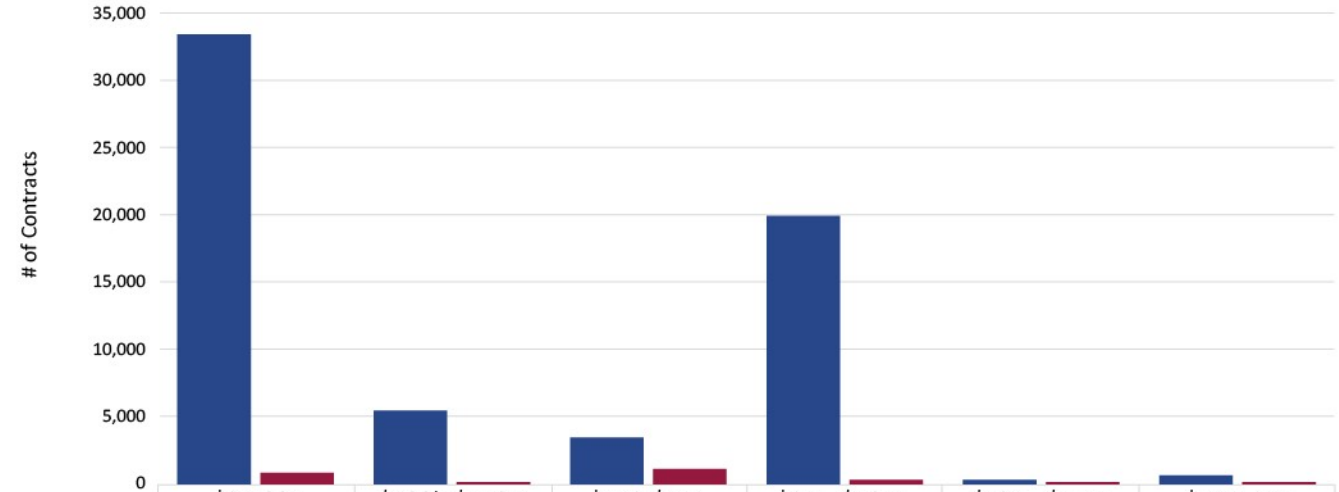


Conclusions

To eliminate the backlog, DCMA must reach a workload steady state, and then apply process improvements to prevent reoccurrence. As shown in Figure 4-23 below, the majority of over-aged contracts could potentially be closed with application of the DCMA QCO streamlined initiatives described above. As depicted in Figure 4-22 above, DCMA will not reach a workload steady state by 2020 and the Secretary of Defense should require the DCMA class deviation initiative dated August 15, 2017 be made a permanent change versus a temporary deviation that sunsets in 2020. DCMA, through the class deviation, has been operating in this manner for years without any negative consequences. In addition, the LRQCO sunset date should be extended at least another 2 years.

The application of these recommendations could eliminate the over-aged contract backlog within 2 to 3 years and allow DCMA to reach a workload steady state, but for DCMA to maintain that level, the DCMA Quick-Closeout Procedure Class Deviation should be a permanent change to the DFARS.

Figure 4-23. DCMA Over-aged Contracts (Total Contract Value)



	$0-500K	$500k-$750K	$750-$1M	$1M- $50M	$50M - $75M	$75M - Up
Flexibly Price	33,349	5,481	3,438	19,839	264	529
Fixed Price	697	60	1,143	294	9	35

To prevent reoccurrence of this backlog, the Secretary of Defense should direct the DoD Chief Management Officer (CMO) to work with USD(C) and USD(Acquisition and Sustainment), to perform further analysis that describes the entire scope of the problem to develop an end-to-end integrated streamlined process. The metrics reflected in Figure 4-23 are only for DCMA-administered contracts and not the entire scope of DoD. CMO should present the results in a report to Congress and propose a mitigation strategy that addresses the entire over-aged contract issue for DoD. The report should contain the following:

- Recommendation assigning responsibility to a single process owner with authority to set priorities and approve closeout policies affecting all involved agencies (recognizing that the current problem started when DCAA made a unilateral policy change on what a *low risk* closeout is, without regard to the downstream effects on other agencies, particularly DCMA).
- Recommendation of process improvements such that closeout happens in a timely manner. *Timely* in this regard should mean that expiring funds are identified, and prioritized for closeout in sufficient time so the Services/Agencies don't have to use current funds to satisfy past obligations.
- Recommendation of appropriate metrics and levels of review to ensure appropriate leadership attention so this cycle of contract backlogs doesn't recur.
  - Reporting tools and emphasis should be put in place to preclude the utilization of current year funds to address cancelled funding bills
  - Automation where appropriate to align and integrate business systems

Congress has already set precedence in Sections 925–927 of the FY 2019 NDAA that the DCMO review the roles and responsibilities of DCAA, DCMA, and DFAS, but does not require an integrated end-to-end look across the three organizations. DCMO should expand the FY 2019 NDAA direction to include an integrated look to determine much needed process improvements and prevent the over-aged contract backlog from reoccurring in the future. It is imperative that this issue be addressed now and in the future to eliminate the application of current-year funds to pay cancelled bills, which results in harming existing programs and DoD strategic interests, as well as undermining the original intent of the appropriators.

Implementation

Legislative Branch

- Direct the Secretary of Defense to submit a report that reflects an end-to-end, integrated, streamlined process-improvement strategy for preventing the reoccurrence of over-aged contract backlog by March 1, 2021.

Executive Branch

Note: DoD, in implementing these recommendations, should engage with industry in accordance with the recommendations in Section 8.

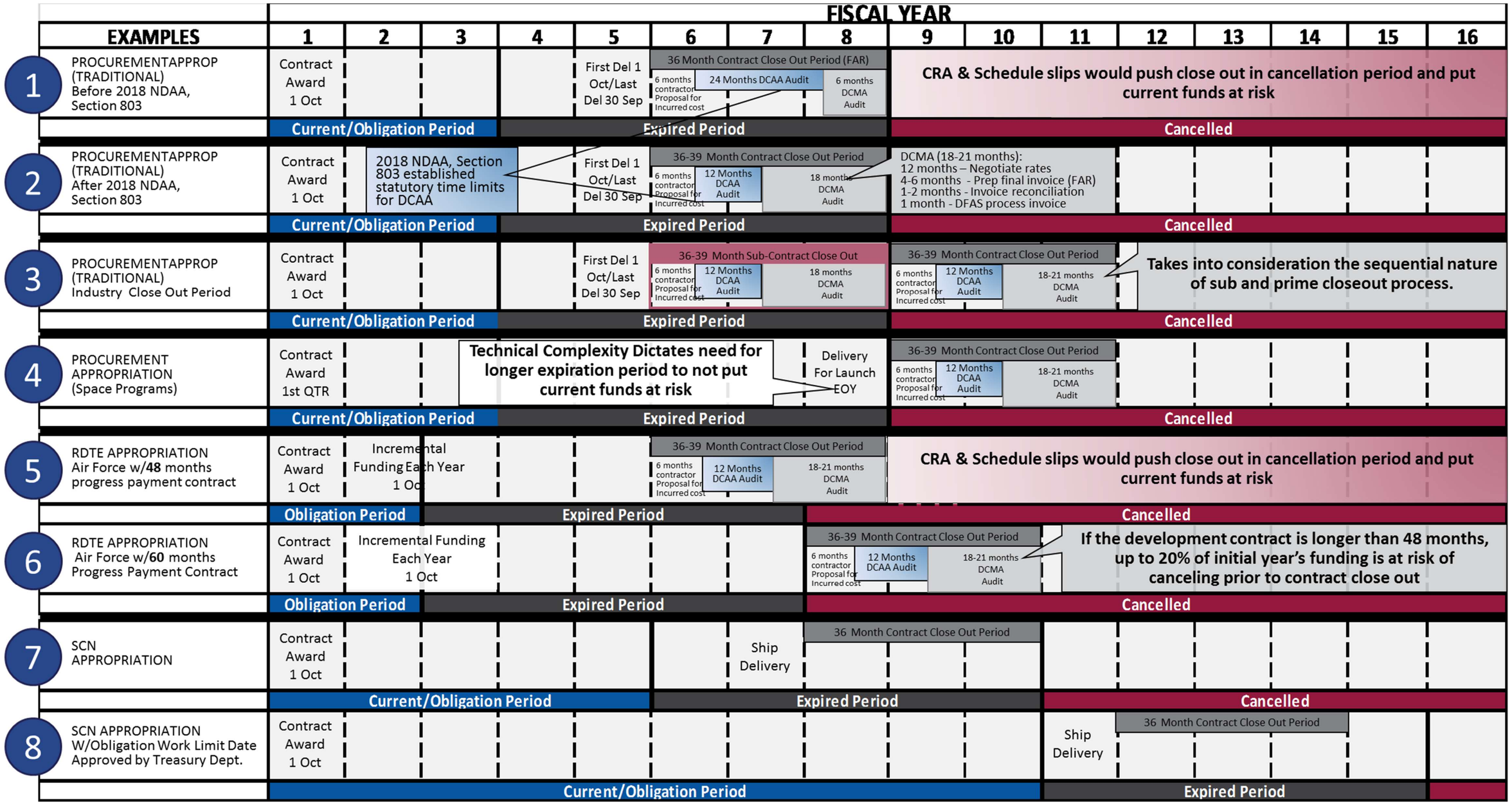
- Codify DCMA's Quick Close Out class deviation in the DFARS by:
  - Removing requirements to obtain an audit report or low-risk adequacy memorandum from the DCAA prior to settling quick-closeout rates.
  - Authorizing ACOs to settle final overhead rates when it is in the best interest of the government and close any and all physically complete contracts regardless of dollar value or the percent of unsettled direct and indirect costs allocable to the contracts.
  - Applying the streamlined QCO process to flexibly priced contracts.
- Develop a report to Secretary of Defense providing the entire scope of the DoD over-aged contract backlog with current funds at risk for cancelling and an integrated mitigation strategy to resolve and prevent reoccurrence.
- Develop a QCO burn-down plan addressing the entire DoD over-aged contract backlog with quarterly status reports to the Secretary of Defense.
- Extend the current sunset date of the DCMA LRQCO initiative that was issued April 13, 2018 by 2 years.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 4.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

Figure 4-18. Contract Closeout Complexities to Stay Within Statutory Fund Periods



Section 4
Budget

Implementation Details

RECOMMENDED REPORT LANGUAGE

SEC.___. INCREASE IN THRESHOLD FOR PAYMENT OF INTEREST UNDER THE PROMPT PAYMENT ACT ON LATE PAYMENTS TO CONTRACTORS.

This section would amend section 3902 of title 31, United States Code, to increase the threshold above which the government must pay contractors added interest penalties in cases of delayed contract payments. The threshold would increase from $1 to $15. The committee notes that the $1 threshold has not been increased since it was established in the 1980s, and inflation has risen substantially since then. The committee further notes that the advisory panel established under section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) addressed this issue. According to the panel's analysis, in many cases government and industry combined pay more in administrative overhead to process these transactions than the value of the payments themselves.

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SEC. ___. INCREASE IN THRESHOLD FOR PAYMENT OF INTEREST UNDER THE PROMPT PAYMENT ACT ON LATE PAYMENTS TO CONTRACTORS.

(a) MINIMUM AMOUNT OF INTEREST PAYABLE BY GOVERNMENT.—Subsection (c)(1) of section 3902 of title 31, United States Code, is amended by striking "$1.00" and inserting "$15".

(b) EFFECTIVE DATE.—The amendment made by subsection (a) shall apply with respect to payments under contracts awarded, contracts renewed, and contract options exercised on or after the first day of the first fiscal quarter that begins more than 180 days after the date of the enactment of this Act.

(c) CODIFICATION OF PROVISION RELATING TO DEPARTMENT OF DEFENSE.—

(1) CODIFICATION.—Subsection (f) of such section is amended by inserting before the period at the end the following: ", except that interest penalties may be paid by the Department of Defense from funds financing the operation of the military department or defense agency with which the invoice or contract payment is associated".

(2) REPEAL OF CODIFIED PROVISION.—Section 8084 of the Department of Defense Appropriations Act, 2002 (Public Law 107-117; 31 U.S.C. 3902 note), is repealed.

TITLE 31, UNITED STATES CODE

§3902. Interest penalties

(a) Under regulations prescribed under section 3903 of this title, the head of an agency acquiring property or service from a business concern, who does not pay the concern for each complete delivered item of property or service by the required payment date, shall pay an interest penalty to the concern on the amount of the payment due. The interest shall be computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 7109(a)(1) and (b) of title 41, which is in effect at the time the agency accrues the obligation to pay a late payment interest penalty.

(b) The interest penalty shall be paid for the period beginning on the day after the required payment date and ending on the date on which payment is made.

(c)(1) A business concern shall be entitled to an interest penalty of ~~**$1.00**~~ ***$15*** or more which is owed such business concern under this section, and such penalty shall be paid without regard to whether the business concern has requested payment of such penalty.

(2) Each payment subject to this chapter for which a late payment interest penalty is required to be paid shall be accompanied by a notice stating the amount of the interest penalty included in such payment and the rate by which, and period for which, such penalty was computed.

(3) If a business concern—

(A) is owed an interest penalty by an agency;

(B) is not paid the interest penalty in a payment made to the business concern by the agency on or after the date on which the interest penalty becomes due;

(C) is not paid the interest penalty by the agency within 10 days after the date on which such payment is made; and

(D) makes a written demand, not later than 40 days after the date on which such payment is made, that the agency pay such a penalty,

such business concern shall be entitled to an amount equal to the sum of the late payment interest penalty to which the contractor is entitled and an additional penalty equal to a percentage of such late payment interest penalty specified by regulation by the Director of the Office of Management and Budget, subject to such maximum as may be specified in such regulations.

(d) The temporary unavailability of funds to make a timely payment due for property or services does not relieve the head of an agency from the obligation to pay interest penalties under this section.

(e) An amount of an interest penalty unpaid after any 30-day period shall be added to the principal amount of the debt, and a penalty accrues thereafter on the added amount.

(f) This section does not authorize the appropriation of additional amounts to pay an interest penalty. The head of an agency shall pay a penalty under this section out of amounts made available to carry out the program for which the penalty is incurred, ***except that interest penalties may be paid by the Department of Defense from funds financing the operation of the military department or defense agency with which the invoice or contract payment is associated.***

(g) ***

(h) ***

Department of Defense Appropriations Act, 2002

(Public Law 107-117; 31 U.S.C. 3902 note)

~~SEC. 8084. Notwithstanding 31 U.S.C. 3902, during the current fiscal year and hereafter, interest penalties may be paid by the Department of Defense from funds financing the operation of the military department or defense agency with which the invoice or contract payment is associated.~~

RECOMMENDED REPORT LANGUAGE

SEC. ___. REVOLVING FUND TO FINANCE MONEY-SAVING INVESTMENTS.

This section would direct the Secretary of Defense to use the authority in Section 1077 of the National Defense Authorization Act for Fiscal Year 2018 (P.L. 115-91) to establish a revolving fund for an information technology (IT) modernization pilot and explore the feasibility of using revolving funds for other money-saving investments.

The committee recognizes the need to create financing opportunities to internally finance projects that show promise for improving agency efficiency and effectiveness—such as recapitalizing facilities, upgrading IT systems, and improving the energy efficiency of existing systems. The funding authority in Section 1077 of the FY 2018 NDAA offers an opportunity to establish a revolving fund for information technology modernization projects. This revolving fund would serve as a pilot program to prove the feasibility of using the revolving fund mechanism to finance continuous, money-saving upgrades to Department of Defense systems and facilities.

The committee notes that the most important factors in determining whether or not a lease, lease–purchase, or other capital-intensive federal facility or equipment recapitalization or upgrade project is funded should be the validity of the requirement, whether the project is executed properly and delivers quality goods and/or services, and whether the price is fair. A project's budget score also may play a role in the government's decision to move forward with a project. The committee further notes that the new fund created under this section could be used as a pilot program to gauge the feasibility of easing the financing rules for certain projects. In addition, the committee expects the Secretary of Defense to conduct studies on public–private funding in other countries and at state and local levels, and the exceptions that have been granted to the Office of Management and Budget scoring rules to determine what would need to be done to increase opportunities for equipment recapitalization. This section would require a report on implementation of the revolving fund be delivered to congressional defense committees within 180 days of enactment as well as a subsequent report on the Secretary's further analysis within one year.

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SEC. ___. REVOLVING FUND TO FINANCE MONEY-SAVING INVESTMENTS.

(a) ESTABLISHMENT OF FUND.—The Secretary of Defense shall—

(1) use the authority in section 1077 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91; 40 U.S.C. 11301 note) to establish a revolving fund to finance information technology modernization projects and to be reimbursed through savings on such projects; and

(2) if the revolving fund established pursuant to paragraph (1) is successful, seek authority from Congress to establish additional revolving funds for other money-saving investments, including investments in the fuel efficiency of weapon systems.

(b) IMPLEMENTATION REPORT. –

(1) Not later than 180 days after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a report on the implementation of the revolving fund established pursuant to subsection (a).

(2) The report shall include—

(A) a time-phased plan for the implementation of the revolving fund; and

(B) an explanation of any congressional action (including any new or additional transfer authority) that may be needed to ensure that future savings from information technology modernization projects are available to reimburse the revolving fund for investments in such projects.

(c) ADDITIONAL STUDY AND REPORT. – Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a report on—

(1) the feasibility and advisability of establishing one or more revolving funds that are not reimbursed through savings to finance defense infrastructure recapitalization projects;

(2) the existing statutory and regulatory regimes that govern the use of public-private partnerships to finance defense infrastructure recapitalization projects; and

(3) any favorable interpretations of the existing scoring rules by the Office of Management and Budget or the Congressional Budget Office that may apply to private sector financing of defense infrastructure recapitalization projects.

(d) AUTHORIZATION.—There is authorized to be appropriated to the Secretary of Defense the amount of $100,000,000 to be available only for deposit into the revolving fund established pursuant to subsection (a).

RECOMMENDED REPORT LANGUAGE

SEC.___. EXTENSION OF PERIOD FOR CLOSURE OF FIXED APPROPRIATION ACCOUNTS FOLLOWING EXPIRATION OF AVAILABILITY FOR OBLIGATION.

This section would amend section 1552(a) of title 31, United States Code, to increase the period for closure of fixed appropriation accounts following expiration of availability for obligations from five years to eight years. After the eight years, an account would be closed and any remaining balance (whether obligated or unobligated) in the account would be cancelled and would not be available for obligation or expenditure for any purpose.

The committee notes that when agencies exceed the time available for payments of obligations (the expiration period), the appropriated funds are canceled and are no longer available for payment. The committee further notes that this legal time limit on payments saves no money for the taxpayer or agencies since the government remains responsible for paying vendors for their work despite the cancellation of appropriated funds. Instead agencies must pay vendors using current appropriations, potentially harming existing programs and agencies' strategic interests, as well as undermining the original intent of the appropriators.

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RECOMMENDED REPORT LANGUAGE

SEC. ___. REVIEW OF CONTRACT CLOSEOUT FUNCTIONS PERFORMED BY THE DEFENSE CONTRACT AUDIT AGENCY, THE DEFENSE CONTRACT MANAGEMENT AGENCY, AND THE DEFENSE FINANCE AND ACCOUNTING SYSTEM.

This section would direct the Secretary of Defense to perform an integrated review of the contract closeout functions performed by the Defense Contract Audit Agency (DCAA), the Defense Contract Management Agency (DCMA) and the Defense Finance and Accounting System (DFAS).

The committee recognizes the need for process improvements in the area of contract closeout. Because of closeout delays that have created a large backlog of overaged contracts in the Department of Defense, vendors must in some cases be paid out of appropriations from different fiscal years, undermining the original purpose of the funding. Because contract closeout responsibilities are performed by different organizations under different leaderships within the Department, the Secretary of Defense, pursuant to this section, would direct the Chief Management Officer (CMO) to perform an analysis that describes the entire scope of the contract closeout problem. The CMO would work with the Office of the Undersecretary of Defense (Comptroller) and the Undersecretary of Defense for Acquisition & Sustainment in order to develop an end-to-end integrated streamlined process to improve contract closeouts in a timely manner. Results of the review, along with a proposed mitigation strategy addressing the entire over-aged contract issue for the Department, would be presented to the congressional defense committees by March 1, 2021.

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RECOMMENDATION 57:

SEC. ___. EXTENSION OF PERIOD FOR CLOSURE OF FIXED APPROPRIATION ACCOUNTS FOLLOWING EXPIRATION OF AVAILABILITY FOR OBLIGATION.

(a) PERIOD FOR CLOSURE.—Section 1552(a) of title 31, United States Code, is amended by striking "5th fiscal year" and inserting "8th fiscal year".

(b) APPLICABILITY.—The amendment made by subsection (a) shall apply with respect to any fixed appropriation account subject to section 1552(a) of title 31, United States Code, that as of the date of the enactment of this Act has not been closed pursuant to that section.

****

Title 31—MONEY AND FINANCE

CHAPTER 15— APPROPRIATION ACCOUNTING

SUBCHAPTER IV-CLOSING ACCOUNTS

§ 1552. Procedure for appropriation accounts available for definite periods

(a) On September 30th of the ~~5th~~ ***8th*** fiscal year after the period of availability for obligation of a fixed appropriation account ends, the account shall be closed and any remaining balance (whether obligated or unobligated) in the account shall be canceled and thereafter shall not be available for obligation or expenditure for any purpose.

(b) Collections authorized or required to be credited to an appropriation account, but not received before closing of the account under subsection (a) or under section 1555 of this title shall be deposited in the Treasury as miscellaneous receipts.

RECOMMENDATION 58:

SEC. ___. REVIEW OF CONTRACT CLOSEOUT FUNCTIONS PERFORMED BY THE DEFENSE CONTRACT AUDIT AGENCY, THE DEFENSE CONTRACT MANAGEMENT AGENCY, AND THE DEFENSE FINANCE AND ACCOUNTING SYSTEM.

(a) REVIEW.—The Secretary of Defense shall, acting through the Chief Management Officer of the Department of Defense, direct the Under Secretary of Defense for Acquisition and Sustainment and the Under Secretary of Defense (Comptroller) to conduct an integrated review of the contract closeout functions of the Defense Contract Audit Agency, the Defense Contract Management Agency, and the Defense Finance and Accounting System. The review shall include the following:

(1) An assessment for providing a recommendation of an integrated end-to-end process for contract closeouts.

(2) An assessment for providing improvements to the end-to-end contract closeout process so that closeout can happen in a timely manner.

(3) An assessment of appropriate metrics and levels of review to ensure appropriate leadership attention so as to prevent overaged contract closeout backlogs, including—

(A) an assessment of recommended reporting tools to preclude the utilization of current year funds to address canceled funding bills; and

(B) an assessment of required automation where appropriate to align and integrate business systems.

(4) Determination of a single process owner with authority to set policies and priorities and approve process changes to ensure contract closeouts continue to happen in a timely manner.

(b) DEFINITION.—In this section, the term "timely" means that expiring funds are identified and prioritized for closeout in sufficient time so that the responsible component of the Department of Defense does not have to use current funds to satisfy past obligations.

(c) REPORT.—Not later than March 1, 2021, the Secretary of Defense shall submit to the congressional defense committees a report setting forth the results of the review conducted under subsection (a).

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Section 5
Acquisition Workforce

As the transformation of the defense acquisition system continues, DoD will require a professional, talented, and forward-thinking workforce to successfully represent the warfighter's interests.

RECOMMENDATIONS

Rec. 59: Revise the Defense Acquisition Workforce Improvement Act to focus more on building professional qualifications.

Rec. 60: Implement acquisition career paths that are integrated with an institutionalized competency model tailored to mission needs.

Rec. 61: Create a comprehensive public–private exchange program for DoD's acquisition workforce.

INTRODUCTION

In its *Volume 2 Report*, the Section 809 Panel issued several recommendations regarding the DoD acquisition workforce (AWF). Those recommendations centered on the hiring process for acquisition career fields, the personnel system for acquisition members, and the budget for AWF development programs. Through those issues, the panel sought to ensure DoD would possess tools and resources necessary to prioritize continued improvement of its AWF. Management structures alone, however, are not enough for the workforce to succeed. More subtle qualities that determine the quality of a workforce exist. They are harder to quantify, but equally important, such as professionalism, competency, and deep understanding of the arena in which the workforce operates. These qualities, which lie at the intersection of an institution's structures and its culture, represent the crux of the panel's recommendations in this concluding report.

Career management is a critical element for the AWF, and the Section 809 Panel's initial framework for examining workforce issues included *development* as one of its main pillars. The panel's outreach to stakeholders in DoD and the private sector confirmed that the career development of AWF members needed to be a focus. In an August 2017 report to Congress, DoD noted that proposed changes to the operation of the AWF would rely on "the re-education of our workforce" and require "a significant cultural shift."[1] Reforms of this nature do not occur overnight. Career development is likely the necessary catalyst for DoD to achieve its ambitions for the AWF.

The following set of workforce recommendations concentrates on workforce development issues. In this chapter, the Section 809 Panel proposes a series of changes to DoD's career development framework for AWF members. The proposals revolve around three crucial aspects of career development: professional certifications, career paths for all acquisition career fields with a competency model for the entire workforce; and public–private exchange programs (PPEPs).

The current three-level certification system, established by DoD to implement the Defense Acquisition Workforce Improvement Act (DAWIA), has been a central feature in the professionalization of the AWF during the past 3 decades. Although the workforce has steadily gained training and relevant experience, today's government-unique certification process has proven to be less successful at ensuring competence as individuals advance through their careers. Recommendation 59 proposes an overhaul of DoD's implementation of DAWIA to introduce *qualifications* (a member's demonstrated occupational competencies and proficiencies), in addition to *certifications* (a combination of member's education, training, and experiences).

To truly reform how DoD develops a highly qualified AWF, the entire system needs to change. Such change requires a career development model that continuously deepens and broadens defense AWF members' experience throughout their entire career. Recommendation 60 notes that DoD should implement career paths that cultivate and develop key work experience in the form of *multidiscipline* training, so the acquisition team trains together throughout members' careers. DoD needs to institutionalize a competency model with technical and nontechnical skills and associated proficiency

[1] Secretary of Defense, *Report to Congress: Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization*, August 2017, accessed November 6, 2018, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.

standards for every acquisition career field. Doing so creates flexibility to integrate these skills in experiential opportunities for career progression while addressing the competencies necessary to keep the warfighting capabilities superior to any adversary. A robust and dynamic career development model would provide clarity to AWF members on the competencies and qualifications required to reach their full potential and contribute to optimal mission outcomes.

PPEPs enjoy widespread support among DoD officials, and both Congress and DoD have made repeated attempts in recent years to establish two-way exchange programs to temporarily assign DoD members to the private sector and vice versa. Although certain exchange programs have achieved limited success, efforts to implement a comprehensive exchange program have failed due to structural and cultural factors that have created disincentives for DoD employing offices, DoD employees, and private-sector companies. A new, comprehensive, two-way PPEP for the AWF, as described in Recommendation 61, would eliminates these disincentives and provide a foundation on which an exchange program can thrive.

In its workforce recommendations for *Volume 2* and *Volume 3,* the Section 809 Panel has endeavored to address the current problems in AWF policy directly and offer concrete solutions to overcome them. As the rapid transformation of the defense acquisition system continues, DoD will require a professional, talented, experienced, and broad-minded workforce to succeed on the warfighter's behalf.

RECOMMENDATIONS

Recommendation 59: Revise the Defense Acquisition Workforce Improvement Act to focus more on building professional qualifications.

Problem

Provisions in DAWIA are intended to professionalize the DoD AWF by establishing specific requirements for education, training, and experience.[2] After nearly 30 years, DoD is still attempting to use a *certification* structure that includes a greater emphasis on experience and ensuring AWF members attain necessary qualifications to fulfill their responsibilities.[3] A current problem is that DoD's certification programs create a sense among the AWF that professional development occurs in a finite period at the beginning of members' careers rather than being a continuing process. Congress and DoD should revise DAWIA to focus on building a professional AWF qualified to tackle the challenges of the 21st century and beyond. Such a refocus would comprise substantiating *qualifications* and a modernization of the *certification* process.

Background

Congress enacted DAWIA (Chapter 87 of Title 10 U.S. Code) on November 5, 1990 to provide a foundation for the AWF management framework.[4] In Chapter 87, DAWIA charges the Secretary of Defense with responsibility for establishing education, training, and experience requirements for personnel serving in acquisition positions. It also charges the Secretary with establishing requirements

[2] Management Policies, 10 U.S.C. § 1701.
[3] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 1, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[4] Management Policies, 10 U.S.C. § 1701.

for continuing education and a certification process.[5] The Office of the Under Secretary of Defense for Acquisition and Sustainment's Human Capital Initiatives (HCI) Office is responsible for executing DoD-wide AWF governance, strategies, policies, programs, and talent management initiatives.[6]

"The content of DAWIA has evolved since its initial implementation in the early 1990s, but the intent remains the same—the recruitment, development, and retention of a professional, educated, and experienced workforce."[7] DoD uses a certification process to determine whether an employee meets the required education, training, and experience standards for an acquisition career field.[8]

DoD has made improvements in developing a certification process that serves as a model for federal civilian agency acquisition programs as well as industry but has made less progress in identifying and addressing employees' job skill gaps.[9] Former Undersecretary of Defense for Acquisition, Technology, and Logistics Frank Kendall highlighted this issue in the Better Buying Power 2.0 objective to increase professional qualification requirements for all acquisition specialties and DoD addressed it by launching the Acquisition Workforce Qualification Initiative (AWQI) employment development tool in May 2013.[10]

Discussion

The Section 809 Panel interviewed DoD acquisition executives and members, acquisition career managers, AWF subject matter experts (SMEs), civilian agency experts and industry experts. The panel also reviewed DoD AWF certification standards listed in the Defense Acquisition University (DAU) icatalog, various Office of Federal Procurement Policy (OFPP) memoranda, Government Accountability Office (GAO) reports, and other acquisition career-field-related literature.

DAWIA

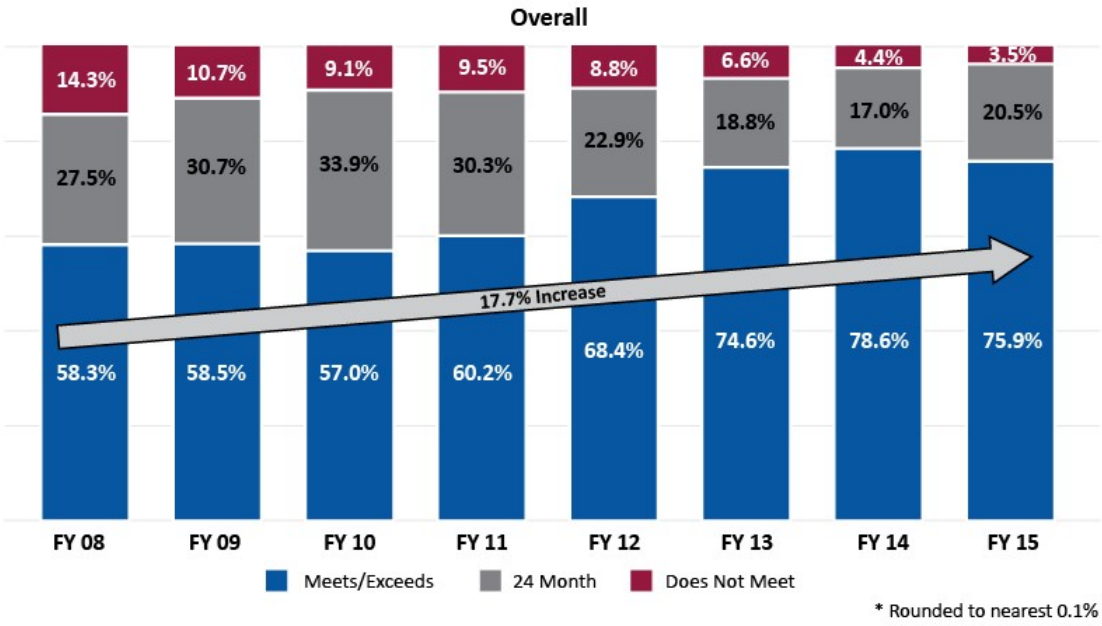
In 1990, Congress required DoD to establish a management and career development structure with specific education, training, experience, and other qualification requirements for the AWF. The structure included (a) contracting officer qualification requirements, (b) acquisition corps membership selection and eligibility requirements, (c) program and deputy program manager assignment and other qualification requirements, and (d) requirements for acquisition personnel assigned to Critical Acquisition Positions (CAPs).[11]

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[5] General Education, Training, and Experience Requirements, 10 U.S.C. § 1723.
[6] Charles H. Porter et al., *Independent Study of Implementation of Defense Acquisition Workforce Improvement Efforts*, CNA, December 2016, 26, accessed November 6, 2018, http://www.hci.mil/docs/Policy/Reports%20to%20Congress/CNA_Study_Def_AWF_Improvements (Public Release) Feb2017.pdf.
[7] Ibid.
[8] Defense Acquisition Workforce Program Desk Guide, DoDI 5000.66, 3 (2017).
[9] OMB Memorandum, *The Federal Acquisition Certification in Contracting Program,* January 20, 2006, revised December 2008, accessed December 2, 2018, https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/procurement/fac_contracting_program.pdf. Bryan Herdlick, Ph.D., *Discipline-Specific Certifications (SE, T&E, MGT): Can they serve as surrogates for DAWIA Qualifications in the DoD Contractor Workforce?*, presentation at INCOSE, May 30, 2014, accessed August 6, 2018, http://www.incose-somd.org/wp-content/uploads/2014/06/Professional-Certifications-INCOSE-SoMD.pptx.
[10] Data obtained during Section 809 Panel interviews with DoD senior leaders, August 2018.
[11] GAO, *Defense Management Implementation of the Defense Acquisition Workforce Improvement Act,* 2, https://www.gao.gov/products/NSIAD-93-129.

Since DAWIA enactment, DoD substantially increased DAWIA certification rates (see Figure 5-1). DoD has also improved education levels of DoD AWF members and the training capacity of DAU.[12]

Figure 5-1. Defense Acquisition Workforce Certification Rates[13]



Source: Adapted from DAU graphic.

Education

Congress specified educational requirements for each acquisition career field in DAWIA to professionalize the AWF. Specifically, the law requires contracting officers and DoD acquisition corps members to have a baccalaureate degree from an accredited educational institution and have completed at least 24 semester credit hours in various disciplines.[14] The Office of Personnel Management (OPM) implemented governmentwide qualification requirements for acquisition occupations in accordance with DAWIA.[15] DoD implemented DAWIA so that only five career fields require formal education as a prerequisite for an employee to be hired:

- The *auditing* and *contracting* career fields require 24 semester credit hours in accounting or business disciplines, in addition to their baccalaureate degree prerequisites.

[12] Charles H. Porter et al., *Independent Study of Implementation of Defense Acquisition Workforce Improvement Efforts*, CNA, December 2016, 26, accessed November 6, 2018, http://www.hci.mil/docs/Policy/Reports%20to%20Congress/CNA_Study_Def_AWF_Improvements (Public Release) Feb2017.pdf.
[13] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 17, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[14] Contracting positions: qualification requirements, 10 U.S.C. § 1724 and Selection criteria and procedures, 10 U.S.C. § 1732.
[15] "Classification & Qualifications, General Schedule Qualification Standards," Office of Personnel Management, accessed August 28, 2018, https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/#url=List-by-Title.

- The *engineering* and *science and technology manager* career fields require baccalaureate degrees in various technical and engineering disciplines.
- The *test and evaluation* career field requires an associate's degree in any discipline as a prerequisite.
- The *international acquisition* career field educational requirements are permitted to be specified by the career field.
- DoD does not specify any formal education for the other nine AWF career fields.[16]

Although the educational requirements have helped DoD professionalize the DoD AWF, they also limit the ability to hire individuals who do not meet the requirements. The case study below provides an example of how the current DAWIA educational requirements restricts the ability for DoD to hire a talented individual interested in public service.

Case Study:
Individual's Federal Hiring Experience

PROBLEM: An individual the Section 809 Panel interviewed explained that she graduated from college with a baccalaureate degree in political science that included 12 semester hours of business credits. She hoped to enter the government as a DoD contracting intern but did not meet the DAWIA minimum education requirements and could not be hired without obtaining the additional business credits the law requires. She encountered three challenges in her experience looking to be hired as an 1102 in DoD:

Requirement to Have 24 Semester Hours: For DoD 1102 positions, minimum education requirements are a baccalaureate degree AND 24 semester hours of business credits. This differs from OPM's 1102 requirements that require either a baccalaureate degree OR 24 semester hours of business credits. The interviewee explored the possibility of obtaining the additional 12 semester hours that she needed by going to a local community college. This solution would cost more than $2,000 and would take almost a year to complete the training if she took the courses during the summer or as a part-time student.

Hiring Process: The interviewee further encountered a frustrating experience navigating her way around the USAJobs website. For example, one position for which she wanted to apply was open for an entire year, all grades, and all locations. She contacted the point of contact listed on the job announcement for more information and was told there was no information available about whether a position is actually open and mentioned that some of these postings are online so offices can collect resumes in case hiring needs come up later. She sought assistance from individuals who were more experienced with the federal hiring process and was advised the following:

- If a job posting was open for a short period of time (1–2 weeks), it was likely there was an actual position that needed to be filled.
- On the submitted resume, applicants should mark themselves as *highly qualified* in all criteria for the application package to pass through the algorithm to a human reviewer.
- Job postings may say they are *open to the public* when actually, the hiring manager wants to hire internally but must post the position publicly because of human resources requirements to do so.
- It can take 6 months to 1 year to get hired and on-boarded.
- The best way to get hired is for applicants to know someone who can push their resume to the top.

[16] "iCatalog," Defense Acquisition University, accessed August 10, 2018, http://icatalog.dau.mil/onlinecatalog/CareerLvl.aspx.

Case Study:
Individual's Federal Hiring Experience

Limited Opportunities for Nonrecent Graduates: Through her research, she learned about the Pathways Program for entry-level 1102s, but Pathways is only open to recent college graduates. Because she graduated in 2015, she was ineligible.

CONCLUSION: The interviewee was faced with two choices: (a) Pay $2,000 to obtain the additional business credits, delaying her ability to apply for positions until at least Sept 2018, and then potentially wait a year to get hired or (b) Seek employment outside of DoD. She chose the latter, applied for a position outside the federal government, and was hired within 2 months. She currently works in an entry-level contracting position for a major defense contractor.

Training

As required by DAWIA, the Secretary of Defense established DAU to develop and deliver the core acquisition training required for DAWIA certifications, continuous learning courses, assignment-specific courses, and executive-level development training.[17] One major challenge DAU faced from its inception was an "overwhelming backlog of training requirements it has created. The number of people attempting to sign up for required courses and for newly created courses threatened to overwhelm DAU's capability."[18] DoD addressed the backlog in two ways:[19]

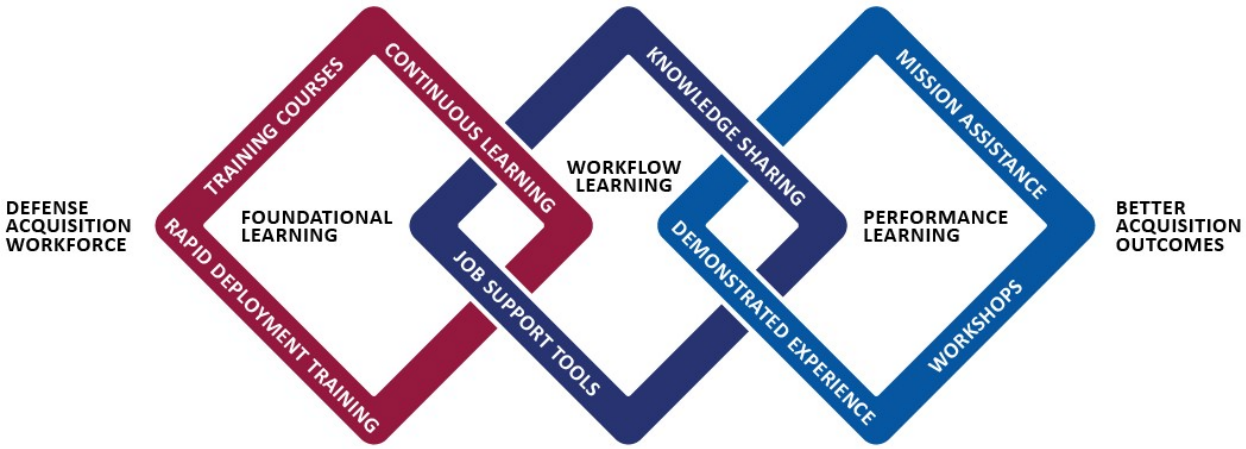
- Allowing some students to meet their training requirements by receiving credit for previous experience through a process called *fulfillment*.
- Developing distance learning courses that allow students to receive immediate training at a reduced cost and with minimum interference with their work schedules.

Today, DAU continues its distance-learning program via online acquisition resources, job support tools, and on-the-job assistance to acquisition organizations and teams.[20] DoD's efforts to increase DAU's training capacity and enhance DAU training contributed toward improved workforce certification levels.[21] Notwithstanding DAU's efforts to increase training capacity, DoD officials told the Section 809 Panel that they desire a better balance among the three elements (diamonds) of DAU's acquisition learning model, which is designed to deliver learning that enhances performance at the precise time it is needed.[22] The three diamonds model (Figure 5-2) consists of foundational learning (structured training courses, continuous learning modules, and policy updates), workflow learning (online courses/webinars), and performance learning (multifunctional team training). As DAU's training model has evolved, it has become clear that the workforce's and DAU's focus on certification

[17] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 9, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[18] Evelyn Layton, *The Defense Acquisition University: Training Professionals for the Acquisition Workforce 1992*-2003, 46, accessed August 10, 2018, https://www.dau.mil/about/Documents/DAU%20History%20Book.pdf.
[19] Ibid.
[20] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 9, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[21] Ibid, 18.
[22] Data obtained during Section 809 Panel interviews with DoD senior leaders, August 2018.

and knowledge needs to shift toward a focus on behavioral change and building workplace leadership confidence and competence.

Figure 5-2. DAU's Acquisition Learning Model: The Three Diamonds[23]



Source: Adapted from DAU graphic.

Senior acquisition leaders indicated DoD should consider reducing some content included in foundational certification courses and instead offer this content later in employees' careers when it will actually improve their capabilities. The current construct drives overspending due to *training atrophy*, meaning by the time employees actually need the training for successful performance in their position, they have forgotten it because the training occurred too far in advance of the need. A related problem is that today's functional integrated product team focuses on a broad range of competency elements. This situation leads to a focus on making sure someone—often someone with shallow knowledge—is assigned to all of the functional roles, at the expense of ensuring AWF members build confident expertise. To compound the problem, AWF members have a difficult time getting refresher training because DAU, due to training capacity limitations, prioritizes foundational training for employees working toward a certification over advanced employees who need to refresh their knowledge.[24]

Virtually all of acquisition is a team activity involving multiple functional players, yet in preparing AWF members to do their jobs, DoD relies almost exclusively on individual skills training, especially for certification. This approach varies greatly from proven performance models in virtually every other military mission area or corporate/commercial learning design for which new entrants first learn individual skills, then learn how to apply those skills in concert with other teammates in small teams, then the small teams learn how to integrate their capabilities either in support of other teams, or how to coordinate support from other teams and functions, and so on.

Experience

The DoD Acquisition Workforce Strategic Plan sets a goal of prioritizing experiential learning through rotational assignments and exchange programs, yet so far it has focused more on workforce shaping

[23] "Acquisition Learning Model," Defense Acquisition University, accessed August 28, 2018, https://www.dau.mil/about/p/Acquisition-Learning-Module.
[24] Data obtained during Section 809 Panel interview with DoD senior leaders, July–August 2018.

and relied on certification training completion as a measure of success with regard to DAWIA.[25] DoD lacks metrics to measure improving workforce proficiency and capability.[26] DoD senior leaders indicated that certification means nothing without an understanding of true capabilities. Some believe employees are over-trained, they are completing certifications they may never need, and DoD should balance certification training with getting real work done. Interviewees agreed that experience is the greatest contributor through which employees become qualified in their chosen career field.

According to psychologist K. Anders Ericsson and author Malcom Gladwell, one must accrue 10,000 hours of practice to become a master of anything.[27] Under the current construct, interns and new AWF employees are fully certified and considered experts in their field by merely remaining employed in a DoD acquisition organization for 4 years, along with the education and training for certification, without having to demonstrate that they have mastered the proficiencies of an expert acquisition professional. Certification Level III should indicate AWF members have achieved initial readiness, not certified expertise.

AWQI is a positive step for ensuring employees are qualified in addition to being certified, but AWQI is a voluntary program, and organizations within DoD have been slow to embrace it. The major obstacle seems to be that AWQI is complex and requires a substantial time commitment from employees and their supervisors but does not show them an obvious benefit for devoting the time to use it.

Continuous Learning

Once employees achieve certification to a certain level, they never have to recertify, even though the knowledge base of regulations, technology, and best practices applicable to acquisition grows every year. Instead, DoD requires certified AWF members to accumulate 80 continuous learning points (CLPs) within a 2-year training cycle to maintain certifications. Creditable activities include academic courses, training courses, professional activities such as obtaining professional licenses or teaching, and experiential learning such as rotational assignments or participating in exchange programs. The point credit for each activity is set forth on the DAU website.[28] Continuous learning activities are largely self-directed by employees, with some involvement by immediate supervisors (e.g., a sign-off on an employee's individual development plan (IDP)), but little strategic guidance from the enterprise on competencies desired for the future.

DoD officials offered mixed reviews of this approach to maintaining certification. Some indicated 80 CLPs was reasonable, but criteria should be factored into the continuous learning requirement so that employees are incentivized to take training or participate in activities that will improve their performance or prepare them for future job opportunities. One official pointed out that DoD's self-imposed criteria sometimes misses the mark by allowing AWF members to be trained in areas that they do not need in their current positions because it is easy for them to take training courses available

[25] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 28, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[26] Data obtained during Section 809 Panel interviews with DoD senior leaders. August 2018.
[27] Malcolm Gladwell, *Outliers: The Story of Success* (New York: Little, Brown and Co., 2008), 40.
[28] "Continuous Learning Center, Point Credit," Defense Acquisition University, accessed August 28, 2018, https://www.dau.mil/training/clc/p/Point-Credit.

through DAU.[29] A better, less used alternative, would be for employees to fulfill continuous learning requirements by actively seeking training from other education providers (e.g., local community colleges, commercial training providers) that addresses knowledge gaps. CLPs should be used to maintain certification by focusing on competencies needed for current and future positions.

Specialties and Leadership

DAU worked with functional leaders to establish a set of Core Plus courses for each career field and each DAWIA certification level.[30] Employees and their supervisors can use the DAU Core Plus Development Guide to identify training beyond certification requirements that allows employees to specialize in a specific acquisition area and may be beneficial to employees' career development or performance in a particular assignment.[31] Officials indicated they like the idea of Core Plus specialization and that it is a step in the direction of better training focused on the competencies required for the position and could result in a more capable workforce that delivers improved acquisition outcomes.[32]

DAU is also making inroads with regard to leadership development training. It offers five courses that embed leadership development within some Level II certification but primarily Level III certification courses across all acquisition career fields. It also promotes employee participation in leadership and management courses such as the Harvard Business School for Continuous Learning credit as a means of maintaining their certification after acquiring Level III certification.[33] Further, DAU established a Leadership Learning Center of Excellence (LLCOE) "to increase awareness of the importance of leadership to successful acquisition outcomes."[34] The LLCOE offers a combination of courses and executive coaching to develop future leaders. In September 2018, DAU began piloting an Acquisition Leader Development (ALD) series of seven integrated programs delivered through a combination of on-line, classroom, and workplace experiences. The initial ALD program targets early-career professionals and the subsequent programs will be available as professionals move through their career.[35]

DoD-unique Certification

Both the government AWF and industry recognize the DAWIA construct as a well-developed certification program. It serves as a model for federal civilian agencies' acquisition workforce and industry.[36] However there are no universal certification standards.

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[29] Data obtained during Section 809 Panel interviews with DoD senior leaders, August 2018.
[30] Charles H. Porter et al., *Independent Study of Implementation of Defense Acquisition Workforce Improvement Efforts*, CNA, December 2016, 26, accessed November 6, 2018, http://www.hci.mil/docs/Policy/Reports%20to%20Congress/CNA_Study_Def_AWF_Improvements (Public Release) Feb2017.pdf.
[31] "What is Core Plus?" United States Army Acquisition Support Center, accessed August 28, 2018, https://asc.army.mil/web/faqs-train-42/.
[32] Data obtained during Section 809 Panel interviews with DoD senior leaders, August 2018.
[33] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 19, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.
[34] "Defense Systems Management College, Leadership Learning Center of Excellence," DAU, accessed November 20, 2018, https://www.dau.mil/locations/dsmc/p/Leadership-Center.
[35] Data obtained during Section 809 Panel interviews with DoD senior leaders, August 2018.
[36] OMB Memorandum, *The Federal Acquisition Certification in Contracting Program,* January 20, 2006, revised December 2008, accessed December 2, 2018, https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/procurement/fac_contracting_program.pdf.

The exclusivity associated with DAWIA certification has some unintended, negative consequences. DoD-unique standards use DoD-unique terminology that is not widely accepted. Project management, for example, is different than DoD science and technology and acquisition governance. DAU has comingled the two concepts, which has rendered the associated training unnecessarily complex, focusing on policy at the expense of building solid program management or systems engineering skills.

The intent of DAWIA was to professionalize the DoD AWF; however, a certification program unique to DoD presents problems.[37] For example, AWF members may have difficulty communicating with industry due to use of DoD-unique terminology, and DoD employees may not understand the language of business, business activity, or motives, and the realities of how the private sector operates.[38] This situation can result in insufficiently developed requirements and suboptimally negotiated contracts. Standards that support a common foundation for communication and collaboration in both government (including DoD) and industry would render workforce members more effective.[39] It is important to recognize economics and market forces are key differences in dealing with firms that offer defense-unique products as compared to firms that offer commercial products.

DoD's unique certification program makes it difficult, and sometimes impossible, to hire quality employees when they do not comply with DAWIA requirements but are otherwise qualified and desirable to do the job. "No rules are so good that there should not be some mechanism to allow unusual people to enter the acquisition work force."[40] DoD's implementation of DAWIA does not give hiring managers enough flexibility in choosing the right person for a job.

Leveraging commercial certification programs would help DoD overcome the unintended consequences created by adopting a DoD-unique certification process. The certification programs must be based on nationally or internationally recognized standards, not those that simply offer a certificate upon completion of training. In implementing this shift in certification focus, it is important to recognize what learning content commercial certification programs address, and what learning content will need to be addressed in DoD-provided training as truly DoD-unique.

Conclusions

Current implementation of DAWIA in DoD policy has succeeded in its goal of supporting professionalism of its AWF.[41] DoD's robust AWF management framework promotes education, training, and experience that, on completion, allows personnel serving in acquisition positions to be certified at various levels. DoD's implementation of DAWIA falls short, however, by making

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Bryan Herdlick, Ph.D., *Discipline-Specific Certifications (SE, T&E, MGT): Can they serve as surrogates for DAWIA Qualifications in the DoD Contractor Workforce?*, presentation at INCOSE, May 30, 2014, accessed August 6, 2018, http://www.incose-somd.org/wp-content/uploads/2014/06/Professional-Certifications-INCOSE-SoMD.pptx.

[37] Management policies, 10 U.S.C. §1701.

[38] Data obtained during Section 809 Panel interview with industry leaders, August 2018.

[39] Bryan Herdlick, Ph.D., *Discipline-Specific Certifications (SE, T&E, MGT): Can they serve as surrogates for DAWIA Qualifications in the DoD Contractor Workforce?*, presentation at INCOSE, May 30, 2014, accessed August 6, 2018, http://www.incose-somd.org/wp-content/uploads/2014/06/Professional-Certifications-INCOSE-SoMD.pptx.

[40] Dr. Robert B. Costello, former Under Secretary of Defense (Acquisition), testimony before the Investigations Subcommittee of the Committee on Armed Services House of Representatives (Hearing Record), March 28 and April 24, 1990, 163-10.

[41] Charles H. Porter et al., *Independent Study of Implementation of Defense Acquisition Workforce Improvement Efforts*, CNA, December 2016, 26, accessed November 6, 2018, http://www.hci.mil/docs/Policy/Reports%20to%20Congress/CNA_Study_Def_AWF_Improvements (Public Release) Feb2017.pdf.

certification the goal and not linking certification to *occupational qualifications* that AWF members can demonstrate on the job.

As DoD continues to reform its AWF policies, it can improve the capabilities of the AWF by abandoning the three-level certification structure and instead addressing employee development through two processes:

- Modernizing the existing certification process to emphasize professional skills that are transferable across the AWF and industry by relying more on *professional certifications* based on nationally or internationally recognized standards.
- Preparing employees to perform better in their current jobs and for future positions by adding *occupational qualifications* or demonstrated competencies to an employee's job series for defense acquisition-specific skills.

The three-level certification structure burdens DoD with mandatory training requirements that, although important, do not align with employees' learning needs as they progress through their careers. The layers of DAU training are often not timed to employee job needs and unnecessarily drive DAU resources to focus on basic foundational training that can be gained in many other ways.

Additionally, the three-level structure provides a false sense of assurance that AWF members are job-ready without any consideration of their proficiency. A second-order effect of this flaw is DoD uses the AWF certification system as selection criteria for filling positions. Thus, it is possible that a level-three-certified applicant for a position with little or no proven job experience would be more likely to be considered to fill a position than an experienced applicant who is not level-three certified.

Professional certification should be to industry- and governmentwide standards. Examples of such practice would be certified public accountants (CPAs) or professional engineers for which accepted standards fundamental to the profession exist, and they do not vary whether practitioners are in industry or government. Training related to these certifications is sanctioned by the professional community through independent validation processes. Adoption of a professional standards model would permit DAU to shift its training focus and resources to offer employees experiences that fit their precise needs as they flow through various jobs in their careers. DAU would also need to focus on the defense-unique buying context because it would not be content addressed in industry certification programs. It is vital that AWF members understand the similarities and differences in economic and market forces for defense-unique and commercial markets and how DoD policies and processes address those differences.

Amend DAWIA to Require Professional Certification

Professional certification is defined as the process by which an AWF member participates in a program that offers a combination of education, training, or experiences based on third-party accredited, nationally or internationally recognized standards. Third-party accreditation adds credibility to the standard.

DoD should require *professional certification* as part of DAWIA when such a program exists for a particular career path. Introducing *professional certification* as an element of the DAWIA process will

help to avoid the unintended consequences created by the current DoD-unique certification construct. Requiring a *professional certification* would allow DoD and industry to work from a common body of knowledge, improve communication and collaboration between government and industry, increase the applicant pool, and raise the professionalism of the DoD AWF to meet national or international standards.

Once DoD AWF members acquired *professional certification*, they would rely on the certifying organization's process for maintaining certification. That could involve recertifying by means of retesting or continuous learning.

Amending DAWIA to require *professional certification* also would provide an opportunity for DoD AWF members to acquire their training and testing for certification and continuous learning from local academic institutions or other accredited education providers in the commercial marketplace. This approach could help reduce costs associated with employees being sent to DAU training courses. Additionally, costs associated with employees' professional certification could be covered by DoD through redirection of certain training funds.

If a third-party accredited program based on nationally or internationally recognized standards does not exist for a particular DoD AWF career field the certification requirement would not simply disappear. Instead, DoD would be responsible for creating its own certification program for that particular career field using whatever institutions or resources were deemed appropriate. DoD would need to determine the best approach to satisfying the certification requirement and ensuring that it conforms with the practices of national accrediting bodies such as ISO. The professional certification program should focus on validating employees' attainment of the fundamental knowledge and skills needed for them to be successful across a career continuum.

In a modernized implementation of DAWIA, professional certification would no longer be the goal for AWF members but would instead be a baseline used to demonstrate AWF members' understanding of acquisition subject matter. Beyond professional certification, AWF members would also need to demonstrate they are capable of performing acquisition-specific skills in their current or future positions to be considered qualified—the new goal. Adopting industry-/governmentwide professional certifications similar to the CPA profession as a baseline is not a substitute for the training and development responsibility that DoD and other federal agencies bear for the lifetime learning needed by their workforces.

Amend DAWIA to Eliminate the Mandated 24 Semester-Hour Prerequisite

DAWIA has succeeded in professionalizing the DoD AWF. The number of DoD AWF members with baccalaureate and advance degrees has steadily increased.[42] Having specific credit requirements in statute may hinder hiring managers' ability to choose the right person for a job.

DoD should be allowed to determine for itself if specific credit requirements should be applied to any particular DoD AWF career fields. Eliminating the statutory mandate would not preclude DoD from

[42] DoD, *Department of Defense Acquisition Workforce Strategic Plan FY 2016 – FY 2021*, 17, accessed November 6, 2018, http://www.hci.mil/docs/DoD_Acq_Workforce_Strat_Plan_FY16_FY21.pdf.

instituting its own educational requirements if it chose to do so. DoD would have the flexibility to make that determination for the acquisition workforce based on its own evaluation, rather than a congressional directive. This flexibility would allow DoD to become more agile in hiring candidates with backgrounds and education that no one imagined when DAWIA passed, such as data analysis, cyber security, supply chain management, or artificial intelligence, including fields that may emerge as important skills for a future AWF.

Implementation

Legislative Branch

- Amend 10 U.S.C. § 1701a, Management for Acquisition Workforce Excellence.
  - Require DoD to implement an AWF professional certification program based on third-party accredited, nationally or internationally recognized standards for each DoD acquisition career field.
  - If a third-party accredited, nationally or internationally recognized certification program does not exist for a DoD acquisition career field, require DoD to establish a certification program using the best approach determined by the Secretary of Defense for meeting the requirement including implementation through entities outside DoD.
- Amend 10 U.S.C. § 1724, Contracting Positions: Qualification Requirements.
  - Eliminate the requirement for contracting officers to have completed at least 24 semester credit hours (or the equivalent) of study in the specified areas.
- Amend 10 U.S.C. § 1732, Selection Criteria and Procedures.
  - Eliminate the requirement for contracting officers to have completed at least 24 semester credit hours (or the equivalent) of study in the specified areas.

Executive Branch

- There are no regulatory changes required for this recommendation.

Note: Explanatory report language and draft legislative text can be found in the Implementation Details subsection at the end of Section 5.

Implications for Other Agencies

- If Congress agrees to statutorily mandate DoD AWF members to acquire *professional certifications*, then the Section 809 Panel recommends Congress also extend the mandate to the federal civilian AWF and provide adequate funding to accommodate such a program. DoD and civilian agencies share an applicant pool. Extending the mandate to all federal civilian AWF members would raise the professionalism of the entire federal AWF, giving hiring managers added assurance they are hiring quality employees, regardless of whether applicants come to them from inside or outside their own agency.

Recommendation 60: Implement acquisition career paths that are integrated with an institutionalized competency model tailored to mission needs.

Problem

DoD has taken an unbalanced approach to professionalizing the workforce by focusing primarily on training to meet certification requirements, rather than enhancing the qualifications of the workforce. To develop the workforce, occupational qualifications and competency measures must exist from the time the member enters the AWF until they separate or retire. Twenty-nine percent of AWF members are early in their career, meaning they have 20 or more years until they reach retirement eligibility. More than half of those individuals have less than 5 years of experience.[43] This situation indicates a large wave of early career (i.e., pipeline) professionals who require a long-range plan today for their development. DoD has not addressed the appropriate standards to guide AWF members in increasing their technical and nontechnical competencies to advance in their careers. Solving these problems requires culture change regarding how DoD develops highly qualified AWF members.

Background

A disconnect exists between what behaviors and qualifications members perceive necessary for advancement and promotion, as compared to the actual performance results and promotion potential recognized by their agencies.[44] Today, pipeline members race to become Level III certified within their first 5 years in the AWF, expecting several promotions along the way.[45] This promotion momentum creates a false impression that members are fully qualified and proficient at or near the 5-year mark, whether or not the members have actually performed well in critical elements of their positions and demonstrated competencies needed for future positions.[46]

Career Paths

Career paths are used to illustrate *career possibilities* for employees to progress in their field. Career paths help ensure that qualified members are available to fill positions in DoD that require specific professional qualifications. A long-range career path includes jobs of increasing variety, complexity, responsibility, and accountability, leading to management and leadership opportunities. They describe the occupational qualifications (i.e., education, training, and competencies) and key work experiences required to advance.[47] Career advancement does not constitute a race up the career ladder, but rather, it is an escalation of skills to enhance mission success and fulfill the employee. Career paths would provide AWF members and their supervisor's guidance to help determine what each member needs for career success.

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[43] Sean McKenna et al., *Retirement in the Acquisition Workforce: Update and Insights for the Section 809 Panel Research,* RAND Corporation, August 30, 2018, 39.
[44] AWF stakeholders, communication with the Section 809 Panel, July-August 2018.
[45] Ibid.
[46] Ibid.
[47] For purposes of this recommendation, the panel defines *key work experiences* as interactions inside and outside of government that foster professional development and career broadening (e.g., rotational assignments, temporary assignments, managerial and leadership experience, defense joint/service/agency collaboration, or simulation/exercise engagement).

Competency Models

The purpose of a competency model is to provide measurable and objective means to determine if members have demonstrated the needed proficiency to execute tasks and meet position requirements for a given job. Competencies are generally gained by a combination of education, training, and practice. They are initially verified when the member demonstrates the task, and validated when someone who has already mastered the competency, such as a supervisor, acknowledges the member's mastery. In the AWF, most positions require competencies that are characterized by varying proficiency requirements. Competency models can add data and direction to career development planning by objectively quantifying skill gaps for the individual and DoD Components.[48] Competencies are not measures of performance, and are not used to evaluate how well AWF members are performing in their current jobs. A member could demonstrate a task competency to a specified proficiency standard, yet when expected to execute that task fall short. Competencies are used to determine a member's qualifications, and what level of proficiency a member has mastered for a new competency task, or to validate that they have gained or maintained proficiency in a competency task. The nontechnical or soft skills are also necessary. AWF members often demonstrate technical proficiency but it is equally important that they demonstrate leadership skills that result from confidence and commitment.

For example, new cadet-pilots are gradually introduced to increasingly complex skills under the guidance of instructor pilots. The instructor must observe the cadet successfully perform a skill or maneuver to specific standards before certifying that the cadet can move on to learn new skills. Only when cadets have demonstrated to the instructor that they can handle the aircraft without supervision, are they allowed to solo.

When veteran pilots move to a different aircraft, or return to flying after an extended period away, they go through the same process. Although they may not have to recertify on basic flight principles, they have to demonstrate to a flight examiner who is experienced and current in the particular aircraft that they are qualified to fly that type of aircraft safely. Similarly, AWF members should demonstrate task competencies at the required proficiency standard to a more senior AWF member that is qualified and experienced in those skills to be considered qualified to perform duties requiring those skills.

Career Development Culture

Creating a policy that simply publishes career paths and implements a competency model, without recognizing the heavy lifting needed to change culture, would be inadequate. Creating career paths and competency models through changes in statute and DoD policy would trigger a fundamental pivot, allowing DoD to transform the acquisition culture. This approach would bring together the acquisition team in new ways, requiring more interdisciplinary/multifunctional collaboration in training and execution. It would shift away from a singular focus on technical skills, to qualifying members based on a mix of technical and nontechnical skills necessary for career development and mission needs. It would emphasize practices that, if implemented, would be the forcing function to change the status quo with respect to how DoD shares new ideas and practices. Shifting to a system

[48] For example, Military Departments are U.S. Air Force, U.S. Navy, U.S. Army; DoD Agencies can be Defense Contract Management Agency (DCMA), Defense Logistics Agency (DLA).

that allows the AWF to develop tailored practical experiences across occupational boundaries would enhance DoD's ability to build teams, think critically, collaborate, innovate, and become less risk averse.

Discussion

Career Paths

Career paths are the range of opportunities available within an AWF functional career field and the criteria for vertical and horizontal movement to positions of increasing responsibility and opportunity, up to the highest position in that field.

Existing Statute

Although Congress has provided statutory direction that specifically requires DoD to develop career paths with key work experiences for more than 27 years, little evidence exists that those measures have been implemented comprehensively for the AWF. DAWIA (codified in Chapter 87 of Title 10 U.S. Code) provided direction to DoD concerning career paths and key work experiences. The statutory sections in Table 5-1 all specify career path requirements. In each case Congress's direction has not been implemented in DoD.[49]

Table 5-1. Chapter 87, Title 10 U.S.C., Statute Governing Career Development

DAWIA Statute	Purpose
§ 1701a(b) Performance Management	Requires DoD development of *attractive career paths*. Requires managers to develop performance plans to give members an understanding of how their performance contributes to their organization's mission and the success of the defense acquisition system.
§ 1721 Designation of acquisition positions	Chapter 87, 10 U.S.C, states that as a minimum the AWF comprises the following acquisition-related positions: ▪ Program management ▪ Systems planning, research, development, engineering, and testing ▪ Procurement, including contracting ▪ Industrial property management ▪ Logistics ▪ Quality control and assurance ▪ Manufacturing and production ▪ Business, cost estimating, financial management, and auditing ▪ Education, training, and development ▪ Construction ▪ Joint development and production (other agencies and foreign) ▪ Intellectual property
§ 1722 Career Development	Requires *appropriate career paths* that include education, training, experience, and assignments necessary for career progression to the most senior acquisition positions.

[49] Defense Acquisition Workforce, 10 U.S.C. Chapter 87.

DAWIA Statute	Purpose
§ 1722b Special requirements for civilian employees in the acquisition field	Requires DoD to establish policy/guidance for proper development, assignment, and employment of civilian members. Specifically requires the following: ▪ Career paths ▪ Workforce strategy ▪ Opportunities for promotion ▪ Succession planning ▪ Workforce development strategy which focuses on diversity in promotion, advancement, and experiential opportunities.
§ 1723(b) Career Path Requirements	Requires career paths to include "completion of course work, on-the-job-training and demonstration of qualifications." Requires DoD to "develop key work experiences to foster interaction with AWF & end-user." Specifically for the AWF, these experiences are to be imbedded in the end-user environment to enhance experiential learning and help AWF members become seasoned.

Need for Change

10 U.S.C. § 1722 "requires appropriate career paths that include education, training, experience, and assignments necessary for career progression to the most senior acquisition positions," yet DoD has not created career paths for all of its acquisition career fields.[50] Congress purposefully allowed DoD to use discretion in applying this statute; however, DoD failed to make substantial strides to implement career paths and key experiences for career progression. Congress needs to reinforce what is already in statute.

Discussion with all of the DoD Directors, Acquisition Career Management (DACMs) and several key DAU stakeholders highlighted that DoDI 5000.66, Defense Acquisition Workforce Education, Training, Experience, And Career Development Program, and its accompanying *Defense Acquisition Workforce Program Desk Guide* (*Desk Guide*), issued on July 27, 2017, do not clearly explain the workforce requirements for career paths.[51] For example, the DoDI contains Section 6.2, Career Path Requirements, however it provides no actual requirements. DACM and DAU engagement also revealed that Section 6.2 currently only applies to specialty career fields (e.g., international acquisition). The *Desk Guide* defines the AWF by adding a career field not previously defined anywhere else (small business), and excludes international acquisition. DoD fails to use instructions and policy consistently for the AWF to identify which DoD policy requirements apply to them, falling short of congressional intent. DoD's instructions and guides governing career paths and key work experiences is summarized in Table 5-2 below.[52]

[50] Career Development, 10 U.S.C. § 1722.
[51] Defense Acquisition Workforce Education, Training, Experience, and Career Development Program, DoDI 5000.66 (2017).
[52] Defense Acquisition Workforce, 10 U.S.C. Chapter 87.

Table 5-2. DoD Instruction Governing Career Paths and Development

DoDI	Purpose
DoDI 5000.66 Defense Acquisition Workforce Education, Training, Experience, and Career Development Program [AWF Program] Replaces any other policy and procedure formally issued by the DoD to the AWF for career development.	"In order to establish a consistent framework for constructing acquisition competency models and to facilitate the analysis of cross-functional competencies, the AWF has adopted the 5-tiered DoD Competency Management Framework outlined in Volume 250 of DoDI 1400.25." Contains Section 6.2, Career Path Requirements, which states, "AWF members assigned to career path positions must complete requirements for the career path."

Current DoD policy is confusing to the point that it has become unusable, largely because its regulations fail to define terms to specify the career fields to which this guidance applies. For example, 10 U.S.C § 1721, Designation of Acquisition Positions, broadly designates positions that are considered *related to* the AWF; however, DoD never crosswalks any AWF career fields to this designation. "DoDI 5000.66 gives no direction to its workforce; it's not written for the workforce, it's written to describe roles."[53] Adding a layer of confusion to the problem, existing workforce career development guidance such as the DAU websites, DoDI 5000.66, and the Acquisition Workforce Strategic Plan FY16–21, indicate either 14 or 15 career fields.

Requirements for Career Paths—Key Work Experience

Congress has directed DoD to develop and implement key work experiences in career paths for decades.[54] *Key work experiences* are interactions inside and outside of government that foster professional development and career broadening (e.g., industry exchange, temporary/rotational assignments, managerial and leadership experience/development, multidiscipline/multi-occupational collaboration, simulation/exercise engagements, and contingency deployments).

Providing AWF members with a variety of key work experiences is vital for enhancing their proficiency in collaboration and networking as technology evolves and becomes increasingly prevalent in the AWF's daily operations.

> *Technology is also making some jobs far more important, especially those that only smart government managers can perform, like building bridges among the increasingly networked government and connecting with the ever-growing array of government's constituencies.*[55]

Each AWF career path should include key work experiences that can give AWF members opportunities to develop technical and nontechnical competencies necessary by acquiring skills for innovatively solving real-world problems. AWF stakeholders emphasized the importance of determining how well a

[53] DACM, AWF stakeholders, communication with the Section 809 Panel, July-August 2018.
[54] General Education, Training, and Experience Requirements, 10 U.S.C. § 1723.
[55] "Excellence in Government: Solving the Right Problem with the Federal Workforce," Terry Gerton and Donald F. Kettl, Government Executive, September 25, 2018, accessed November 6, 2018, https://www.govexec.com/excellence/management-matters/2018/09/solving-right-problem-federal-workforce/151511/.

member learns to reflect on and solve problems.[56] These key experiences can allow individual members and the organization to which they belong to experience different roles and prepare for additional responsibilities.

Rotational Assignments

Recommendation 61 of this chapter stresses the importance of PPEPs for building the AWF's understanding of how industry contributes to national security. The opportunities for professional development fostered by an exchange with industry cannot be matched by internal government mechanisms.[57] Specific opportunities like PPEPs should be identified for each career field, and integrated into career paths. Rotational assignments within DoD can also be used to provide joint key work experience and to spread best practices among the acquisition community.

SME Track

Many AWF members are specialists in their craft, and although they want to skillfully master their jobs, they have no desire to lead organizations. These members' goals may be to have a career as an SME. Similarly, DoD has many missions that require specific technical career paths. DoD needs the flexibility to identify career paths that focus on accumulating high expertise in a particular domain or key technical skills. Providing key work experiences that focus on enhancing domain expertise and technical skills would support members who want to pursue the SME track. Supervisors and members should continue career development conversations throughout members' careers. Members who select an SME track should, however, have an option to change course and gain the competencies necessary for leading people.

Managerial/Leadership Track

A recurring theme in stakeholder feedback was the importance of leadership. In general, stakeholders indicated DoD needs to identify members with managerial and leadership interests earlier in their careers and provide avenues for them to practice small-scale leadership before taking on a supervisory role. This practice is common in military career models, but not often practiced in the civilian workforce. DoD should facilitate early leadership experiences for members interested in managerial/leadership tracks and prepare them in nontechnical skills discussed below.

Implementing a Career Path Framework in the AWF

The Section 809 Panel assessed the case study below, focused on the financial management (FM) workforce, as an example that could be emulated for the AWF. This case study notes similarities between the AWF and the financial-management sector, with its 13 distinct career fields, and acknowledged the AWF career fields have a broader array of disciplines that perform drastically different roles within DoD. Because the AWF performs across many different domains and supports many different missions, functional communities should provide input to the DoD Components regarding the broad body of knowledge that is common across their functional career fields, and the

[56] AWF senior leader, communication with the Section 809 Panel, June-August 2018.
[57] AWF stakeholders, communication with the Section 809 Panel, July-August 2018.

DoD Component should be responsible for developing career paths that consider the functional input yet are tailored to the DoD Components' respective missions.

Case Study:
Best Practice Civilian Career Roadmap and Competency Development in the FM Workforce

This case study provides overarching career development information for the FM workforce, which marries measurable job activities and aligns competencies for its workforce into career paths.[58] This case study, which highlights career paths, as a best practice and is similar to what is recommended for the DoD AWF. More information about the FM competency model is available at: https://fmonline.ousdc.osd.mil/Professional/Civilian-Career.aspx.

Problem: The DoD FM community recognized that no institutionalized, standard body of knowledge existed for the FM workforce and used a competency foundation to improve the overall proficiency of the workforce.

Example: An Air Force hiring manager looking for a GS-12 0510 Accountant could not determine the competency or proficiency of an Army GS-12 0510 Accountant.

Context: The Human Capital and Resource Management unit for the Office of the Under Secretary of Defense (OUSD) (Comptroller) developed a comprehensive FM workforce portfolio that includes DoD-wide FM civilian career roadmaps. The portfolio also includes a competency-based certification program that mirrors the expectations in the career roadmaps. After a pilot in 2013 and approval of DoDI 1300.26, implementation began in 2014 and the program was fully operational in 2015.

Highlights: The program's foundation is a set of 24 enterprisewide competencies aligned to applicable occupational series, their associated proficiency levels, and selected leadership competencies. FM community leaders are able to assess and close gaps between current competencies and capabilities and those required in the future. Because the program is based on enterprisewide FM competencies, it is the centerpiece of the community's strategic human capital mosaic, which binds together career roadmaps, IDPs, competency gap assessments, associated strategies to close the gaps, and ultimately hiring practices.

- As members progress, at a certain level there is a mandate for a minimum 3-month developmental assignment.
- An e-catalogue includes a course inventory with more than 13,000 courses aligned to the FM competencies to include 80 web-based courses developed by the OUSD(Comptroller) office.
- The program spans the tenure of the employee and uses technical and nontechnical competencies and proficiency levels.
- The program operates within a governance structure of DoD FM leaders from the DoD Components; they provide input and recommendations on the program's policy and overall operation.

The program enables DoD FM leadership to focus training in necessary areas and track progress. It reinforces the culture of professional development within DoD, ultimately increasing proficiency in technical and leadership disciplines and enabling the FM community to keep pace with evolving warfighter needs.

In this construct, members of the AWF can visualize what experiences, (i.e., education, competencies, potential assignments, leadership) constitute a path toward career progression that aligns with their individual goals to move toward being an SME or leader. It is important to identify how the AWF could develop these two integrated concepts for each career field, similar to the FM community's *career roadmap*.

[58] "Civilian Career Roadmaps & Job Items Library," DoD FM Online, accessed November 6, 2018, https://fmonline.ousdc.osd.mil/Professional/Civilian-Career.aspx.

How DoD establishes its policies and funding to support these initiatives will dictate the range and success they will have on influencing the workforce. To be truly effective, echelons below OSD (i.e., DoD Components) should manage their own programs' Defense Acquisition Workforce Development Fund (DAWDF) allocations to match specific mission-related, career-broadening opportunities to what would be best for the individual AWF members and their organizations' mission requirements. DoD also must understand that talent management plays an important role in integrating career paths within its workforce. Successfully implementing a talent management framework would help unleash the benefits of career paths for individual employees and DoD as a whole.

Competency Models

Congress needs to enact statute and guidance to require competency models with proficiency standards that include technical and nontechnical skills to be implemented for the AWF. A competency model requires a tailored, mission-related task set of competencies, with proficiency standards that measure both technical and nontechnical skills. It must be designed to assist each AWF member to develop and demonstrate the competencies and proficiencies for success through all phases of their careers, based on the following definitions:

- **Task Competency:** Methods for a member to demonstrate individual tasks or task elements specific to the member's current position in an effort to occupationally qualify the member in "an observable, measurable pattern of knowledge, abilities, skills, and other characteristics that individuals need to perform work roles or occupational functions successfully."[59] Task competencies use specific mission-related tasks that require direct supervisor feedback to identify any on-the-job training gaps present in real-time. At all stages of their career, AWF members should be assessed by a more senior acquisition professional for each task competency using proficiency standards. Competencies may be gained through education, training, or experience. Task competencies can be categorized as technical or nontechnical as follows:
  - **Technical:** Associated with a specific occupation or functional skills to perform the job task required. These competencies reflect domain-specific requirements and are associated with critical functions particular to the mission.[60]
  - **Nontechnical:** Demonstrate the ability to relate, manage, lead and/or develop others. Personal attributes and characteristics associated with "people skills or soft skills."[61]
- **Proficiency Standards**: Distinct formal categories used to describe various levels of expertise which represent a scale of demonstrated occupational skills. These categories describe the member's ability to execute a task competency successfully and are used as an occupational qualification measure.

[59] DoD Civilian Personnel Management System: Civilian Strategic Human Capital Planning (SHCP), DoDI 1400.25, Volume 250, 21 (2016).
[60] Ibid.
[61] Ibid.

DoD should consider following proficiency standards, which would correspond to specific task competencies, as a way for the supervisor to determine how a member demonstrates a single task for purposes of occupational qualification. The following are examples of possible proficiency standards:

- **Entry:** The level at which an individual demonstrates a particular task competency in basic acquisition situations. As related to tasks, the member can identify "simple processes; name parts, tools, and simple facts/terms about the task; requires close/extensive guidance, and needs to be told or shown how to do most of the tasks."[62]

- **Intermediate:** The level at which the individual demonstrates a particular task competency in some difficult acquisition situations. As related to the task, the member demonstrates successfully most parts of the task but requires frequent guidance and oversight.[63] On-the-job training is necessary to develop task proficiency. Intermittently executes tasks independently.

- **Advanced:** The level at which the individual demonstrates a particular task competency in select complex acquisition situations. As related to the task competency, the member demonstrates extensive skill and is technically competent in most complex situations in one or more areas. "Applies the competency in difficult situations, needing only spot checks; can determine step-by-step procedures for the tasks; only requires occasional guidance."[64]

- **Expert:** The level at which the individual demonstrates a particular task competency in the widest variety of acquisition situations. As related to the task competency, the member demonstrates expert technical skills at the highest level of complexity with no assistance. Superior ability to transform technical skill into teachable actions for the occupational series in which they reside.

Competency Model with Proficiency Standards

To date, AWF qualifications have centered on skills that were largely unmeasurable because they lack proficiency standards to gauge the competency level. Consequently, DoD has used time served and certification levels as a proxy for experience when qualifying the workforce. This model does not allow DoD to plan for future career development, while measuring current competencies. "We need to move from a focus on rules and compliance to a focus on performance and learning."[65] A formalized method to determine individual proficiency standards would identify how a member *actually demonstrates* the job tasks, and to what level of proficiency, rather than just cataloging how many years a member has held an acquisition position. By knowing what proficiency is expected of them in the future, members and their supervisors can address appropriate development needs when creating IDPs.

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[62] OUSD, *DoD Financial Management: Certification Program Handbook,* October 2016, accessed November 6, 2018, https://fmonline.ousdc.osd.mil/Assets/documents/docs-certification/DoD_FMCertification_Handbook.pdf.
[63] Ibid.
[64] Ibid.
[65] "Excellence in Government: Solving the Right Problem with the Federal Workforce," Terry Gerton and Donald F. Kettl, Government Executive, September 25, 2018, accessed November 6, 2018, https://www.govexec.com/excellence/management-matters/2018/09/solving-right-problem-federal-workforce/151511/.

At the DoD Component or unit level, hiring activities do not have a method to effectively qualify members using a set of competencies, so they cannot effectively determine their person's fitness for the next job.[66]

> *Replace the over-defined job specifications of the current system with a competency-based, talent-management model. Competencies should be vested in individuals and individuals should be matched to missions, instead of having static occupations define both. Rules have calcified the federal personnel system to the point that compliance has become the driving rule. What the federal government most needs is a system that recognizes that it doesn't matter where government employees sit—what matters is what they know and how they contribute to the mission. It's the capacity of the government's managers, not the specifications of their seats, that counts. As work becomes more complex and more managers need to work across complex networks to get the job done, that's going to be increasingly important.*[67]

In today's system, if new members demonstrate the same tasks every year for 4 years in a row with no attempt made to broaden their career experiences, they are presumed to be equally qualified as individuals who demonstrated a variety of tasks over the same period.[68] In either case, 4 years' experience provides no information about how proficient the members are at the tasks they demonstrated, or to what degree new tasks have been introduced and mastered.

DoD must stop attempting to categorize the AWF into buckets of apprentice, journeyman, and expert. Every AWF occupation requires varying degrees of expertise as it relates to mission tasks. Those tasks represent an array of proficiency standards. Individuals should be considered for moving to the next tier based on how they perform mission-related tasks at the appropriate mission-related proficiency standard.

Many stakeholders and senior leaders reported that AWF members need a level of proficiency that directly correlates to a current position and current and future mission requirements. They indicated there is no value in attempting to master a general list of competencies for a career field, some of which their AWF members may never be required to use. Some pointed to their own careers, for which they have mastered a specific AWF competency so long ago that their skills atrophied far below what would be considered expert level today.[69] Not all competencies are necessary to master, and competency requirements should be tailored for each position. DoD should consider the following in implementing competency models:

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[66] *Unit* is a level of organization below the Military Department/Defense Agency. It is usually associated with a command led by a flag officer. Designation of the unit to participate in the development of competency and proficiency standards is left to the Military Department/Defense Agency.
[67] "Excellence in Government: Solving the Right Problem with the Federal Workforce," Terry Gerton and Donald F. Kettl, Government Executive, September 25, 2018, accessed November 6, 2018, https://www.govexec.com/excellence/management-matters/2018/09/solving-right-problem-federal-workforce/151511/.
[68] AWF stakeholders, communication with the Section 809 Panel, July-August 2018
[69] Ibid.

- Key work experiences have a return on investment greater than a classroom can offer.[70]
- A competency model allows for DoD to consider the competencies commercial-sector employees gained by their experience in industry that could satisfy competencies in the government AWF, and enable DoD to recruit qualified midcareer candidates when needed. It would allow AWF members to leave government for jobs in industry and return later, bringing with them an increased understanding of industry that DoD needs. If DoD considers the competencies developed in industry as part of the competency models, AWF members may regard opportunities with industry as career enhancements, rather than career interruptions.
- The AWF is dynamic. DoD's mission evolves continuously, so the AWF must be able to innovate with changes in mission, technology, law, policy, operating concepts, or other factors. AWF members' skills cannot be static, and must be tailored to the mission.

Defense Acquisition Corps

As articulated in 10 U.S.C. § 1731, Defense Acquisition Corps (DAC) and 10 U.S.C. § 1732, Selection Criteria and Procedures, the DAC construct has outlived its purpose, and should be eliminated from statute. 10 U.S.C. § 1732, Critical Acquisition Positions, requires AWF members to meet a 4-year experience requirement, specific education requirements, and "demonstrated analytical and decision-making capabilities, job performance, and qualifying experience." These criteria flow over to § 1733 (CAP) because these candidates are required to be members of DAC. A shift in focus from years of experience to demonstrated skill would render DAC qualification criteria obsolete.

Interviews with DoD stakeholders showed that, for the most part, the DoD Components do not use the DAC construct to manage the AWF. Since DAWIA was enacted in statute, other means have been used to track and manage the AWF to ensure that the requirements of these provisions are met. Specific DAC provisions, such as officer promotion rate and the mobility statement, should be retained in statute but not explicitly linked to DAC.

Critical Acquisition Positions

The requirements in 10 U.S.C. § 1733, Critical Acquisition Positions, do not appropriately describe the competencies necessary for these positions. Experience based on years in a job as well as specific education requirements should be replaced with competency requirements. DoD should specify competency requirements for CAPs. The implementation of career paths and a competency model for the AWF should allow DoD the flexibility to define the standards for the AWF and CAPs within each career field.

Basis for Statutory Change to Require Competency Model

DoD has dedicated substantial resources toward competency development (e.g., AWQI, Acquisition Qualification Standard, DoDI 1400.25 Civilian Personnel Management System).[71] Although these

[70] Ibid.
[71] DAU Stakeholder Engagement, August 2018. DoD Civilian Personnel Management System: Civilian Strategic Human Capital Planning (SHCP), DoDI 1400.25, Volume 250, 2 (2016). R. Wood, "Knowledge vs. Experience; The Need for an Acquisition On-the-Job Qualification Standard," *Defense AT&L Magazine,* May-June 2009, 10-12.

models were developed, they have not been successfully implemented into the civilian AWF. Because all of these efforts and guidance are not mandatory for the AWF, they have not been implemented. The panel does not endorse any particular model, rather examples are provided to demonstrate that a significant body of knowledge already exists to begin the work needed to develop a competency model for each AWF career field.

Nontechnical Competencies

With implementation of this recommendation, AWF members would be required to demonstrate the appropriate balance of technical and nontechnical skills, as both technical and nontechnical skills are required to meet mission needs. The AWF has failed to appropriately develop nontechnical competencies before members begin to supervise. Requiring AWF members to demonstrate nontechnical competencies helps their supervisors determine members' readiness for positions that requires them to interact more with people. The following are examples derived from the DoD FM community requirements:[72]

- brainstorming in a group setting
- flexibility
- patience
- resilience
- interpersonal skills
- credibility
- team building

Congress has repeatedly directed DoD to "develop key work experiences that foster interaction with the acquisition workforce and end-user."[73] In doing so, DoD should include appropriate nontechnical competencies that meet Congress's intent for each AWF career field.

Arguably, the civilian workforce is reluctant to evaluate the same type of character traits known as *people skills* that the military evaluates. Military performance reports target individual nontechnical competencies in addition to technical competencies to assess performance and encourage specific behaviors to build military culture. For example, the Army officer rating system evaluates individuals on these skills:[74]

- communication
- teamwork
- followership
- team building
- interpersonal skills (i.e., people, coaching, teaching, counseling, motivating, empowering)
- emotional characteristics (i.e., self-control, calm under pressure)

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[72] "Civilian Career Roadmaps & Job Items Library," DoD FM Online, accessed November 6, 2018, https://fmonline.ousdc.osd.mil/Professional/Civilian-Career.aspx.
[73] Career Path Requirements, 10 U.S.C. § 1723(b).
[74] See sample Army Officer Evaluation Report, DA Form 67-9, October 2011, accessed September 5, 2018, https://www.femplate.com/wp-content/uploads/2017/10/army-oer-support-form-army-oer-support-form-army-oer-support-form-examples-army-oer-support-form-character-bullets-army-oer-support-form.jpg.

- ability to develop subordinates
- conducting assessments (i.e., after action reports, facilitating continuous improvement)

The Senior Executive Service (SES) qualification standards provide an example of how the civilian workforce assesses critical nontechnical skills (e.g., collaboration, team building, innovation). Almost all of the SES skills depend on employees' ability to successfully master nontechnical skills that demonstrate their ability to lead people, lead change, drive results, build business acumen, and build coalitions.[75] To qualify for an SES position, an employee must draw from accomplishments only within the last 10 years prior to appointment.[76]

There are specific things DoD can do to help develop critical nontechnical competencies, as they relate to career development. Enhancing these competencies could help alleviate cultural boundaries that exist around stove-piped career fields in the AWF. Some examples include fostering the ability to build and lead cohesive teams, applying critical thinking to technical problems, collaborating, and experimenting with ways to eliminate risk-averse habits and build innovative solutions.

Change Status Quo Culture

There is a continuous demand for culture change in the AWF, yet DoD does not routinely provide AWF members with the nontechnical skills needed to drive change. To build practical experience, reduce gaps, and cultivate these nontechnical competencies, DoD must develop these nontechnical skills earlier in members' careers. "Innovation occurs when organizations solve difficult problems in an environment that encourages experimentation, risk taking and allows for short term failure."[77] With new ideas come increased risk, unacquainted procedure, and inexperience. Often, it can be difficult for a good idea to withstand the momentum familiarity carries.

> *Furthering a culture of innovation within the DoD will contribute to the achievement of these transformational visions. Senior DoD leaders have endorsed and promulgated a culture of innovation … and challenged officers during a speech at the U.S. Naval Academy to 'risk failure, because in failure, we will learn and acquire the knowledge that will make successful innovation possible.'*[78]

The functional communities and DoD Components must provide means for the AWF to cultivate new experiences—cross-functional and cross-organizational discussions with scenarios that highlight best practices in critical thinking, collaboration, innovation, and reduced risk aversion—resulting in a more mission focused mindset. AWF members can benefit from trusted sources that have navigated similar situations. AWF members are often reluctant to try innovative practices without a coach or a mentor.[79]

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[75] "Senior Executive Service: Executive Core Qualifications," OPM.gov, accessed September 1, 2018, https://www.opm.gov/policy-data-oversight/senior-executive-service/executive-core-qualifications/.
[76] Ibid.
[77] Jeff Windham, "20 Observations on Innovation," *Defense AT&L Magazine,* July-August 2016, accessed November 6, 2018, https://www.dau.mil/library/defense-atl/DATLFiles/Jul-Aug2016/Windham.pdf.
[78] Craig Whittinghill, David Berkowitz, and Phillip A. Farrington, "Does Your Culture Encourage Innovation?," *Defense Acquisition Research Journal,* Volume 22, Issue 2, 216-239 (2015).
[79] AWF stakeholders, communication with Section 809 Panel, July-August 2018.

Mentorship

Military leaders spend much of their time developing subordinates; it is engrained in their culture, and they are evaluated on how well they develop people and teams.[80] Military leaders encourage critical thinking skills by coaching and mentoring at all levels.[81] Much can be gained from how the private-sector provides mentoring as well. A February 2018 GAO report noted that in one Fortune 500 company "leaders are expected to participate in long-term career development for people two-levels below them, and provide managers access to external coaches who focus more on leadership."[82]

Case Study:
Defense Logistics Agency (DLA) Energy's Contracting Officer Mentoring Program

This case study of DLA Energy's Contracting Officer Mentoring Program, illustrates the power of mentorship and collaboration. The agency cross-populates its contracting officers within an organization. This program resulted in a chain-reaction of critical thinking and innovation, while cultivating acquisition conversations in small-group settings to help solve unique problem sets.

DLA Energy's Contracting Officer Mentoring Program enhances experiential and collaborative skills. This program purposefully brings together individuals from diverse experiences regarding contract types, complexity, tactics, policy barriers, career path, and rotational experiences. This method provided a platform for cross-directorate networking and experiential learning.

The Contracting Officer Mentoring Program runs annually for 8-months, meeting monthly to discuss a specific topic with senior leaders or SMEs. The program has a mix of small-group sessions and large-group guest speaker sessions. The large-group sessions are led by an assigned emerging leader (someone new to supervision), which provides these individuals the opportunity to lead a larger group and interact independently with the senior leader when establishing a forum for the session. In the small group sessions, contracting officers interact with an organizational senior leader on topics chosen based on workforce feedback.

The idea-sharing approach resulted in new uses of contracting methods and techniques to streamline award time, learn more about industry challenges, and collaborate on best practices. It also forged informal mentoring matches. Workforce feedback regarding this program indicates it has been completely successful and rewarding to both the participants and the organization.

Implementing a Competency Model Framework in the AWF

Although functional communities play a critical role identifying career field foundational knowledge that is common across DoD, the role of the DoD Components in shaping competencies based on mission requirements and the role of members' direct units in determining the competencies and proficiencies for specific jobs is more important.[83] DoD should consider the FM Case Study's best practice of the functional community only flowing down the broadest competencies from the top. For example, the FM community had just 24 DoD-wide competencies established across all 13 FM career

[80] Ibid. Army Officer Evaluation Report, DA Form 67-9, October 2011, accessed September 5, 2018, https://www.femplate.com/wp-content/uploads/2017/10/army-oer-support-form-army-oer-support-form-army-oer-support-form-examples-army-oer-support-form-character-bullets-army-oer-support-form.jpg.
[81] AWF stakeholders, communication with Section 809 Panel, July-August 2018.
[82] GAO, *Defense Acquisition Workforce: Opportunities Exist to Improve Practices for Developing Program Managers, GAO-18-217,* February 2018, accessed July 25, 2018, https://www.gao.gov/assets/700/690094.pdf.
[83] AWF stakeholders, communication with Section 809 Panel, July-August 2018.

fields. FM's additional competencies were tailored at the DoD Component and unit level. In the AWF context, equivalent inputs could come from the following:

- Functional communities (i.e., functional leads and functional integrated product teams) for broad technical knowledge.
- DoD Components (e.g., U.S. Air Force, Defense Contract Management Agency) for mission- and domain-specific knowledge.
- Unit (e.g., Acquisition Systems Command, DLA Energy) for job-specific requirements.

The broadest input would come from the functional communities, which would determine each acquisition career field's baseline range of competencies, define the terms that describe proficiency standards, and ensure the baseline is consistent across DoD. Then, the DoD Components would add competencies specific to their respective current or future mission requirements. Lastly, the unit would develop occupational competencies unique to its specific jobs and mission needs. DoD must recognize that the competency model would be best served by placing the functional communities in a supporting role in relation to the DoD Components. DoD Components are well-positioned to understand their own competency requirements, and they should take the lead in developing the competency model within their ranks.

At this lowest level, the unit would draw from the functional communities' and DoD Components' catalogs of competencies for the career fields to determine which requirements for a particular job or position are necessary. Supervisors would then qualify AWF members by assessing their competencies and proficiencies against job requirements to determine their development needs.

These layers would not produce competencies that duplicate each other, but rather would build off of the foundational competencies described at the functional community level, and become more mission focused with the agency and unit task competencies. This example shows the functional community, DoD Components, and units as decision makers for task competency and proficiency standard development; however, DoD should be given the flexibility to implement this arrangement in any appropriate fashion to allow the development of the proficiency standards. DoD would have the flexibility to recognize existing models from career fields, like FM, that may have already implemented competency models.

Conclusions

To help ensure members of the DoD AWF are adequately qualified to perform tasks associated with their respective positions and prepared to traverse their chosen career trajectory, DoD must clearly identify and define AWF career paths and create competency models.

> *It's no secret that Department of Defense (DoD) acquisition professionals work in a very challenging, high-pressure environment. The acquisition process involves an integrated product team of diverse functional experts who must employ critical thinking skills, collaborative problem-solving and robust*

> *communications to be effective. This dynamic means that the acquisition team's behaviors often can be critical factors in a program's outcome.*[84]

Integrating Career Paths and Competency Models

DoD could accelerate cultural change in the AWF by using career paths and competency models together. Although either could be implemented independently, integrating them adds leverage to create change. If, for example, acquisition units map the competencies and proficiencies to acquisition career field career paths, AWF members would see "the range of opportunities available within an AWF functional career field and the criteria for vertical and horizontal movement to positions of increasing responsibility and opportunity, up to the highest position in that field," and could direct their career development to acquire needed technical and nontechnical skills.[85] Although some DoD Components have made progress in creating an integrated career path and competency model, none have a complete system as described here.

Such a model can best be achieved when DoD Components use key work experiences to bring acquisition teams together in ways that transform the workforce culture. The following are three key areas that illustrate how DoD can reinforce competency model skills by creating key career path work experiences:

- Building and leading cohesive teams to enhance critical thinking.
- Providing opportunities for collaboration.
- Encouraging risk taking and innovation.

AWF members need opportunities to practice certain nontechnical skills that would match well with the key work experiences needed to reinforce the acquisition team concept (i.e., multidiscipline/cross organizational teams). These interconnected competencies (i.e., building teams, critical thinking, collaboration, innovation, and risk taking) embody the core nontechnical skills required to navigate defense acquisition in the 21st century dynamic marketplace. The examples below illustrate a sample of the broader opportunities.

Creating Key Work Experiences that Broaden Culture and Break Down Barriers

Building and Leading Cohesive Teams in Effort to Enhance Critical Thinking

Successful teams identified in academic literature—such as New Zealand's All Blacks rugby team, the Navy Seals, Clemson Football, the Miami Heat, Apple, and Ford—consistently practice team building, cohesiveness, and distinct team development using team-oriented critical thinking to solve problems.[86] Much of the academic research showed that critical thinking occurs in multidiscipline/ cross-occupational collaborative group settings, exercises, and simulations that bring together the acquisition team to practice specific decision-making and problem-solving skills. To capitalize on this success model, DoD needs to do the following:

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[84] Brian Schultz, "The Seven Lethal Acquisition Diseases," *Defense AT&L Magazine,* January-February 2017, 32-35, accessed September 13, 2018. https://www.dau.mil/library/defense-atl/DATLFiles/Jan-Feb2017/Schultz.pdf.
[85] As cited under the *career path* definition earlier in this section.
[86] Jon Gordon, *The Power of Positive Leadership* (Hoboken, NJ: John Wiley & Sons, Inc., 2017).

- Transition all AWF career paths from presentation-based training to experiential learning that incorporates simulation exercises for which critical thinking, rather than rote learning, is demonstrated.

- Include open-ended exercises for which critical thinking is emphasized throughout all AWF career paths. Training, other than for basic technical skills, should include multidiscipline/cross-occupational, team-based scenarios.

Collaboration

Many programmatic roadblocks and cultural issues can be addressed if DoD enhances internal and external collaboration. "Collaboration is NOT cooperation…it is more than the intersection of common goals, but a collective determination to reach an identical objective by sharing knowledge, learning and building consensus."[87] Every conversation that explores how other entities solve acquisition problems induces innovation.

> *Innovation, in the commercial and the DoD context, tends to be based on collaboration. Multiple technical disciplines often have to come together, and the synergy between multiple disciplines may be the central feature of the innovative idea. In the DoD, technical ideas only reach the market when the using [M]ilitary Service decides to embrace the new concept or new product. This is not quite the same as the commercial market where 'early adopters' from a large customer base may help a technology establish a foothold and gain credence. Commercial entrepreneurs build the better mouse trap first and expect customers to come. In DoD the customers, the [M]ilitary Departments, ask for fairly specific products and then budget the resources to pay for the development of those products.*[88]

DoD could enhance collaboration by promoting and using a platform specifically for the AWF to effectively share ideas, collaborate, and trade documents representing best practice.[89] Examples that illustrate how such collaboration can work already exist:

- One stakeholder organization indicated that it recognizes and rewards implementation of other agencies' best practices.[90] Often, recognition is given to the inventor of a best practice, which fosters recreating the wheel, rather than collaboration. Real problem solving occurs when two DoD components talk to each other when trying to implement a solution.

- The FM community has mandatory developmental assignments as part of its career progression, which greatly aids collaboration and generation of new ideas.[91]

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[87] "Leadership Collaboration Skills: Everyone Focuses on Developing These," Mike Schoultz, Digital Spark Marketing, January 11, 2016, accessed September 13, 2018, https://digitalsparkmarketing.com/leadership-collaboration-skills/.
[88] Frank Kendall, "Innovation in the Defense Acquisition Enterprise," *Defense AT&L Magazine,* November-December 2015, 4-5.
[89] AWF stakeholders, communication with the Section 809 Panel, July-August 2018.
[90] Deputy DACM, AWF stakeholders, communication with Section 809 Panel, July-August 2018.
[91] "Civilian Career Roadmaps & Job Items Library," DoD FM Online, accessed November 6, 2018, https://fmonline.ousdc.osd.mil/Professional/Civilian-Career.aspx.

Risk and Innovation

Lack of opportunity and risk-aversion limit opportunities to innovate. To get the AWF comfortable with accepting more risk will require a convergence of key work experiences and nontechnical skill development. "DoD is afraid to fail, and if you cannot fail, there is no learning environment."[92] To create an avenue for practical experience to innovate means to create an environment that allows for short-term failures, trial and error, and latitude to make decisions at a lower level.

> *We have a very punitive, risk-averse system that treats most every mistake or failure as an ethical or criminal act as opposed to just a mistake. So we shouldn't be surprised that the workforce, particularly those on the acquisition side, is risk averse.*[93]

Scenarios for critical thinking need to be fostered by leadership, but driven by AWF members who have the passion to create change. "Passion drives innovation—not rank, power or position."[94] Leadership must create an environment accepting of appropriate risk, or the AWF will lack an avenue for practical experience to innovate. "Leaders can't order innovation to occur; they can be champions and help clear roadblocks, but, in general, senior leaders are not the driving force in innovation."[95]

Culture and Leadership

Unless DoD is willing to take a holistic approach to culture change, to include building the AWF professionals' qualifications, rather than relying on certifications, no change will occur.[96] Applying a concise, well defined competency model in career paths (similar to the *FM Case Study*) will better establish what qualifications should look like. A career path illuminates the possibilities and potential areas of focus, and the competency model proposed here goes beyond focusing on qualification. When combined, career paths and competency models support cultural change.

To date, DoD has operated with disjointed instructions and inconsistent application. Instead, DoD should operate with tailored competencies and proficiency standards with integration of technical and nontechnical skills, so AWF members can understand what is expected of them, and how to work toward managerial/leadership and SME positions. The legislative changes associated with this recommendation will require AWF leadership to develop AWF members capable of building a cohesive, mission-focused team that thrives on exchanges inside and outside of government. Implementing career paths for each AWF career field and a competency model tailored for each AWF career field together, provides AWF members a developmental and experiential career progression, and clarifies what qualifications members requires for their current jobs and for future jobs. These frameworks complement each other and act as key components to transform workforce development.

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[92] "Acquisition: Eliminating the culture barrier to innovative acquisition," Billy Mitchell, FedScoop, April 27, 2015, accessed August 27, 2018, https://www.fedscoop.com/the-cultural-roadblock-to-innovative-acquisition.
[93] Ibid.
[94] Jeff Windham, Jeff, "20 Observations on Innovation," *Defense AT&L Magazine,* July-August 2016, accessed November 6, 2018, https://www.dau.mil/library/defense-atl/DATLFiles/Jul-Aug2016/Windham.pdf.
[95] Ibid.
[96] James N. Phillips, Jr., "Instruction, Direction and Correction: Improving the Acquisition Culture," *Defense AT&L Magazine,* March-April 2018, 26-28, accessed November 6, 2018, https://www.dau.mil/library/defense-atl/DATLFiles/Mar-April_2018/Phillips.pdf.

Implementation

Legislative Branch

Career Paths

- Establish a requirement in 10 U.S.C. § 1701a, Performance Management, requiring DoD to develop career paths for every designated career field in the AWF within 24 months of enactment of this recommendation.
  - Amend 10 U.S.C. § 1722, Career Development, to require DoD to develop appropriate career paths for all AWF career fields.
- Establish a requirement in 10 U.S.C. § 1721, Designation of Acquisition Positions, directing DoD to define in policy which occupational career fields are designated for the AWF. These career fields must be codified in DoD instruction and kept current.[97] In statute, require DoD to publish a policy adhering to this statute 6 months after enactment of this recommendation.
- Establish in 10 U.S.C. § 1722b, Special Requirements for Civilian Employees in the Acquisition Field, a requirement that DoD develop key work experience in the form of multidiscipline training (e.g., multifunctional, cross-discipline, multi-occupational).
  - Require DoD to submit a plan in 12 months from enactment that identifies specific actions the department will take to develop key work experiences for each AWF career field.
- Amend the requirement in 10 U.S.C. § 1723, Career Path Requirements, to apply to all AWF career fields (as opposed to only critical acquisition-related duties and tasks).
  - Require DoD to develop a strategic target that specifies a percent of the workforce, or a percent of funding, it will dedicate annually to identifying, developing, and establishing key work experiences. Include the target and rationale in the report(s) to be submitted in response to the change to 10 U.S.C. § 1722b above.

Competency Model

- Establish a requirement in 10 U.S.C. § 1701a, Performance Management, that DoD develop a competency-based model with defined proficiency standards and technical and nontechnical competencies for every designated career field in the AWF within 24 months of enactment of this recommendation.
  - Require civilian qualification assessments to include both technical and nontechnical competencies.

[97] Currently, 14-15 AWF career fields exist, managed under 20 functional leaders. These career fields are not the same as the *acquisition related positions* designated in 10 U.S.C. § 1721, nor are they designed to be the same; however, DoD must decide exactly which AWF career fields are officially apart of the AWF, understanding that each requires a career path.

- Repeal 10 U.S.C. § 1731, Defense Acquisition Corp and 10 U.S.C. § 1732, Selection Criteria and Procedures.
  - Preserve 10 U.S.C. § 1731 (b), Promotion Rate for Officers.
  - Preserve the Mobility Statement and Promotion Rate for Officers currently included in 10 U.S.C. § 1732(e).
  - Relocate Mobility Statement and Promotion Rate for Officers to 10 U.S.C. § 1733 Critical Acquisition Positions.

Executive Branch

- Cancel DoDI 5000.66, Defense Acquisition Workforce Education, Training, Experience, and Career Development Program.
- Replace DoDI 5000.66, Defense Acquisition Workforce Education, Training, Experience, and Career Development Program, with guidance that clearly establishes responsibility, scope, and definitions of the AWF career influencers and DoD's developmental program within 18 months of enactment of this recommendation.
  - Delegate the responsibilities and authorities to the DoD Components to develop and implement the guidance on career paths and competency models. The guidance should establish the OSD HCI office role as a facilitator in support of the DoD Components in developing and implementing the guidance codified in this recommendation.
  - Ensure a peer review, at a minimum with the Military Services' senior acquisition executives (SAEs) or agency component acquisition executives (CAEs).
  - Clarify how career fields are affected by the changes created by the split of Acquisition, Technology and Logistics into Acquisition and Sustainment and Research and Engineering, identify which career fields will be managed by Acquisition and Sustainment and which by Research and Engineering, and indicate how the two organizations will collaborate on career management responsibilities.
- Delegate responsibility and authority to the DoD Components to develop a user guide for AWF supervisors.
  - Require DoD Component user guides to include all AWF career fields assigned to the respective organizations.
  - Require career paths to include guidance to identify SME and managerial/leadership tracks in career paths.
- Require a report to the Secretary of Defense, within 6 months of enactment of this recommendation, that details how DoD will implement Congress's direction.

Note: Explanatory report language and draft legislative and regulatory text can be found in the Implementation Details subsection at the end of Section 5.

Implications for Other Agencies

- The changes in how the AWF is trained, qualified, and developed should be presented to OFPP. If these recommendations are implemented, they may affect how the AWF in other executive branch agencies are managed.

Recommendation 61: Create a comprehensive public–private exchange program for DoD's acquisition workforce.

Problem

The relationship between the DoD AWF and its private-sector counterpart is a critical element of the defense acquisition system. Because the private sector plays an increasingly prominent role in helping to shape defense acquisition outcomes, it is important that DoD AWF members and private-sector AWF employees understand each other's processes, attitudes, and objectives. PPEPs provide DoD a valuable tool for fostering such understanding. If implemented properly, PPEPs can form a cornerstone of DoD's efforts to engage with the private sector. Despite its desire to do so, DoD has struggled to successfully develop a broad-based, two-way PPEP that would involve its entire AWF. The problem is not political; there is widespread support among DoD officials and Congress for PPEPs. Obstacles to PPEPs are rooted in implementation rather than intent. A policy response that identifies and eliminates the factors hindering DoD's attempts would allow the department to successfully employ PPEPs for the AWF.

Background

PPEPs provide legal authority to allow "federal employees to work in external organizations, external employees to serve in the Federal Government, or both."[98] Exchange programs can be one-way if employees only move from the federal government to the private sector, or two-way if employees move between the federal government and the private sector in both directions. Exchange programs vary in the duties and responsibilities that participants are allowed to undertake. Some exchange programs permit participants to exercise decision-making authority; others restrict participants to purely advisory roles. Some exchange programs place participants in research or policymaking positions; others direct participants to operational support roles.[99] Title 5 authorizes all federal agencies to operate one-way exchange programs to send their employees to the private sector. This basic authority does not authorize two-way exchange programs for private-sector employees to be assigned to the government, and such programs require additional authorization from Congress.[100] Within DoD, Title 5 exchange program authority is referred to as Training with Industry and implemented through DoDI 1322.06, which identifies PPEPs as one type of "education, training, and professional

[98] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[99] Ibid.
[100] Establishment of Training Programs, 5 U.S.C. § 4103(a). Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.

development opportunity" that serves to "enhance the educational and training level of DoD personnel."[101]

The recent history of PPEPs across the federal government reveals the range of exchange programs within the executive branch. At the end of 2013, 16 exchange program authorities existed among federal agencies.[102] Several exchange programs focused on research and policymaking duties, such as the Franklin Fellows Program of the State Department and U.S. Agency for International Development.[103] Other exchange programs were purely advisory in nature, such as the Loaned Executive Program of the Department of Homeland Security.[104] In addition to Training with Industry, DoD oversees several agency-specific PPEPs, including the Information Technology Exchange Program (ITEP) and the DoD Visiting Research Opportunities program.[105] Despite the variety of PPEPs within DoD and the federal government as a whole, DoD does not currently manage a comprehensive PPEP that encompasses its entire AWF. Instead, DoD uses several smaller, more limited PPEPs to provide opportunities to select groups of employees or narrow subsets of the workforce. The Army and Air Force both operate distinct PPEPs called Training with Industry and Education with Industry, respectively, but the Army program is not open to civilian employees and neither program establishes a two-way exchange with the private sector.[106] The Navy does not operate its own PPEP; nor can one be found among the civilian defense agencies.[107] The office of the Secretary of Defense oversees several PPEPs that offer opportunities to employees throughout the DoD workforce, but these exchange programs are small-scale and tend to focus on specific career fields or prospective leaders.[108]

Discussion

DoD Support and Its Limitations

The fragmented nature of DoD exchange programs and the lack of specific coverage for the AWF has created gaps in DoD's ability to encourage acquisition employee participation. This situation runs counter to DoD's avowed beliefs regarding the benefits of exchange program participation. DoD's views align with the conclusions of an external study, which argued that "personnel exchanges provide myriad benefits for exchangees, destination organizations, and home organizations" and called PPEPs a "triple win" for both sides and the employees in between.[109] In its regulatory guidance implementing Training with Industry, DoD states that such exchanges can supplement existing training and education programs by providing opportunities "that are not otherwise available through existing military or advanced civilian education programs."[110] DoD also declares that PPEPs can provide DoD

[101] Fellowships, Legislative Fellowships, Internships, Scholarships, Training-With-Industry (TWI), and Grants Provided to DoD or DoD Personnel for Education and Training, DoDI 1322.06 (2016).
[102] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[103] Ibid.
[104] Ibid.
[105] Ibid.
[106] DoD Officials, meetings with Section 809 Panel, October 3 and 4, 2017.
[107] DoD Officials, meetings with Section 809 Panel, November 28 and December 7, 2017.
[108] DoD Official, meeting with Section 809 Panel, June 21, 2018.
[109] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[110] Fellowships, Legislative Fellowships, Internships, Scholarships, Training-With-Industry (TWI), and Grants Provided to DoD or DoD Personnel for Education and Training, DoDI 1322.06 (2016).

personnel with "the opportunity to gain career broadening experience while working in an industry environment," and DoD agencies with "the means to acquire needed skills or expertise to accomplish their mission."[111] This clear articulation of DoD's support for PPEPs is echoed by AWF senior leaders. One AWF senior official argued that PPEPs enable the AWF to negotiate more effectively with the private sector because acquisition employees become acquainted with industry practices.[112] A second senior official asserted that any program to bring DoD AWF employees and private-sector employees together was positive for the government.[113] A third official touted a military service's efforts to provide funding support for PPEPs, despite competition from other priorities and initiatives.[114] Regardless of varied circumstances among different DoD Components, senior officials consistently support PPEPs and their beneficial effects.

Broad support for PPEPs has not netted development of a comprehensive, two-way exchange program for DoD's AWF, despite congressional effort to create such a program (as a pilot program) in the FY 2016 NDAA.[115] DoD's inability to effectively implement the pilot program is emblematic of its overall difficulties in successfully implementing exchange programs. An Army PPEP for civilian employees failed due to lack of interest.[116] The Navy's efforts to gain administrative flexibility for a prospective PPEP have been stymied.[117] A provision in the FY 2017 NDAA creating yet another framework for an exchange program is only now nearing implementation, nearly 2 years after its passage.[118] The cumulative effect of these frustrations has been that large-scale exchange programs have produced little benefit for DoD's AWF.

Disincentives for Exchange Programs

The explanation for these setbacks lies within the interplay between the cultural context and the PPEP statutory authorities. PPEPs have largely failed to take root due to structural, cultural, and legal factors that are embedded within the traditional framework of exchange programs. These factors have had the effect of creating disincentives for the essential actors in PPEPs, dissuading them from participating. There are three primary actors in any PPEP: the employing office that employs the participating DoD employee, the DoD employee, and the private-sector company that either receives the DoD employee or sends its own employee to DoD (as well as private-sector employees themselves, although their interests can be considered jointly with their employers). The attitudes and incentives of employing offices, employees, and private-sector companies require attention to successfully implement a two-way exchange program on a large scale. The factors that have deterred each of these actors must be properly understood to craft policy changes to overcome them.

DoD employing offices are often neglected in considerations of PPEPs. While an employee is participating in a PPEP, the employing office is compelled to relinquish a talented employee. Tension exists between overall DoD interests, which are furthered by enhanced public- and private-sector

[111] Ibid.
[112] DoD Official, meeting with Section 809 Panel, October 3, 2017.
[113] DoD Official, meeting with Section 809 Panel, November 30, 2017.
[114] DoD Official, meeting with Section 809 Panel, February 23, 2018.
[115] FY 2016 NDAA, Pub. L. No. 114-92, 129 Stat. 1030 (2015).
[116] DoD Official, meeting with Section 809 Panel, October 3, 2017.
[117] DoD Official, meeting with Section 809 Panel, November 28, 2017.
[118] Public–private Talent Exchange, 10 U.S.C. §1599g.

cooperation, and the interests of a particular office at a particular moment, which can be negatively affected by the temporary loss of a valuable employee. The current structure of PPEPs does nothing to alleviate the difficulties for participating DoD offices. Consequently, the tension between offices and their front-line managers and PPEPs has impeded implementation.

Recent congressional authorizations for PPEPs have offered no statutory authority for employing offices to temporarily replace participating employees, which has increased the strain on the employees who remain and raised concern about maintaining productivity.[119] Employing offices are required to maintain participating employees on their payroll, and recent PPEPs have been unable to muster funding to properly support the offices.[120] Insufficient personnel flexibility and insufficient funding have compounded the friction between employing offices and PPEPs. Civilian supervisors resist PPEP participation and do nothing to raise the profile of PPEPs among the workforce.[121] One senior official with a PPEP characterized front-line civilian managers as one of the few groups that were outright opposed to the PPEP and argued that if their resistance dissipated, there would be "twenty times the interest" in the exchange program among civilian employees.[122] A successful PPEP must ameliorate these concerns and convince front-line managers that the short-term costs of encouraging participation in the program can be managed, and will be outweighed by the long-term benefits.

DoD employees are equally critical to the success of any PPEP. The employees must voluntarily join the program, properly take advantage of their experiences with the private sector, and use their newfound insights on behalf of the government. An outside study of PPEPs concluded that public-sector participants gain new skills, are exposed to fresh ideas, and experience a form of external career growth without leaving the government.[123] These benefits have failed to persuade DoD employees, particularly civilians, to embrace the merits of joining a PPEP.

The skepticism among DoD employees can be traced to several aspects of recent PPEPs, such as a chronic lack of awareness among public-sector employees regarding PPEP opportunities.[124] The primary dilemma is rooted in the culture of career development among the DoD civilian workforce (see Recommendation 60). Although senior DoD leaders readily acknowledge PPEP benefits for the workforce as a whole, the immediate career benefits for individual participants are far less clear. Currently, there are no explicit career advantages to be gained from successfully completing a PPEP. PPEPs do not provide additional certification or take the place of any mandatory training program, nor do they open any pathways to promotion.[125] DoD employees receive no tangible career benefits as an inducement to participate in a PPEP. Uncertain whether completing a PPEP will help their careers,

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[119] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf. DoD Official, meeting with Section 809 Panel, February 23, 2018.
[120] Ibid. DoD Official, meeting with Section 809 Panel, November 28, 2017.
[121] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf. DoD Official, meeting with Section 809 Panel, October 4, 2017.
[122] DoD Official, meeting with Section 809 Panel, May 30, 2018.
[123] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[124] Ibid.
[125] Ibid. DoD Official, meeting with Section 809 Panel, October 4, 2017.

employees are hesitant to accept the potential lifestyle disruption of exchange program participation.[126] Some employees fear they could lose their current position in DoD on returning from a PPEP placement.[127] The absence of PPEP integration into DoD's career development structure has hindered DoD's attempts to encourage workforce participation. Employees are reluctant to uproot their careers for a PPEP without the assurance that doing so will advance their ambitions. A successful PPEP must provide that assurance.

Private-sector companies are the final component of a successful PPEP, particularly if the exchange program is designed to operate in both directions and bring private-sector employees into the government. These two-way PPEPs carry benefits for the private sector as well as DoD. Private-sector companies can gain valuable insights into the structures and processes of the government, which often differ substantially from the private sector. Private-sector employees who participate in two-way PPEPs can obtain a firsthand perspective regarding the priorities and methods of their public-sector counterparts, which can help improve public–private communications on their return to the private sector. DoD benefits from an influx of fresh ideas and skill sets that reflect the different approaches of the private sector.[128] The private sector appreciates the potential advantages that can arise from exchange programs, and representatives from the private sector praised PPEPs as "a great experience" that they would "definitely support" under the right circumstances.[129] Despite the value to the companies and their willingness to accept public-sector employees as part of one-way PPEPs, two-way PPEPs have failed to overcome reservations among private-sector companies.

One aspect of the private sector's hesitation revolves around personal conflicts-of-interest (PCIs), and the multitude of statutes that govern PCIs for government employees. Private-sector employees frequently become subject to federal PCI statutes as a result of their participation in two-way exchange programs, and applicable laws such as the Ethics in Government Act of 1978 and Chapter 21 of Title 41 of the U.S. Code (relating to obtaining and disclosing of certain information) can limit their activities for a period when they return to the private sector. The private sector views PCI as a manageable problem in its evaluation of costs and benefits related to two-way PPEPs.

A stronger source of private-sector resistance is rooted in concerns over organizational conflicts-of-interest (OCIs). The FAR defines an OCI as a situation involving either for-profit or nonprofit organizations for which "factors create an actual or potential conflict of interest on an instant contract, or when the nature of the work to be performed on the instant contract creates an actual or potential conflict of interest on a future acquisition."[130] Companies seek to avoid situations in which it appears prior services rendered to the government provided access or information that offered an unfair advantage on a subsequent contract bid, which could expose them to an OCI complaint and jeopardize future contracts. Companies fear such situations may arise through their participation in a two-way PPEP. The purpose of a PPEP is to increase the communication between public and private sectors, and

[126] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[127] DoD Official, meeting with Section 809 Panel, October 4, 2017.
[128] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[129] Industry Executives, meeting with Section 809 Panel, August 15, 2018.
[130] Organizational and Consultant Conflicts of Interest, FAR 9.5.

to provide employees on both sides with a more accurate perspective on the actions of their counterparts. But if a private-sector employee joins DoD as a part of a temporary exchange program, employers worry that the employee's return to the private sector could be perceived as an unfair advantage, expose the company to OCI complaints on future DoD contracts, and endanger some or all of the company's business with DoD.[131] This is a risk that few private-sector companies have been willing to take. An external analysis of PPEPs characterized the problem bluntly by stating that "for-profit organizations were unwilling to risk losing future business with the government over potential conflicts of interest created by an employee rotating through a Federal agency."[132] Thus, OCI concerns represent one of the chief obstacles to implementing a two-way PPEP for DoD. Any proposal for a two-way PPEP must contain a solution that will provide reassurance to private-sector companies to gain their assent and participation.

The Effect of Disincentives

The fate of recent PPEPs illustrates the effect of structural and cultural disincentives. DoD's inability to overcome these issues has proven a crucial factor concerning the success of its PPEPs. The recent histories of two PPEPs—the governmentwide ITEP and the Air Force's Education with Industry (EWI) program—demonstrate the divergent paths that confront exchange programs based upon their relative susceptibility to existing disincentives among the key actors within the program.

Created in the E-Government Act of 2002, ITEP was a governmentwide PPEP that authorized federal agencies to "temporarily detail IT staff to private-sector companies and to accept individuals from the private sector."[133] ITEP had a troubled existence and never achieved real traction. According to GAO, ITEP failed to reassure the private sector regarding potential OCI liability. As a result, OCI concerns became a "major issue" for ITEP because it was "not easy to determine what information is appropriate for private sector employees," and private-sector companies feared "that an exchange would interfere with future federal contracting opportunities."[134] These anxieties resulted in "few inquiries and little interest from private sector companies," which crippled ITEP's ability to bring private-sector employees into the government.[135] At the same time, demand for ITEP among federal agencies and employees was low, and OPM struggled to implement the program because of its complexity.[136] DoD did manage to achieve a functioning ITEP exchange, but that exchange featured exactly one participant before the program's authority was allowed to expire in December 2007.[137] ITEP was undermined by its inability to eliminate the disincentives experienced by the key actors.

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[131] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf. DoD Official, meeting with Section 809 Panel, January 31, 2018.
[132] Susannah V. Howieson et al., *Federal Personnel Exchange Mechanisms*, IDA Science & Technology Policy Institute, November 2013, accessed June 15, 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.
[133] GAO, *Information Technology: Status and Challenges of Employee Exchange Program*, *GAO-07-216,* December 2006, accessed June 15, 2018, https://www.gao.gov/assets/260/254567.pdf.
[134] Ibid.
[135] Ibid.
[136] Ibid.
[137] Ibid. IDA, *Federal Personnel Exchange Mechanisms*, November 2013, accessed June 2018, https://www.ida.org/idamedia/Corporate/Files/Publications/STPIPubs/D-4906.pdf.

By contrast, the Air Force's EWI program demonstrates that a PPEP can provide real value for DoD if it can overcome some of its structural disincentives. EWI represents the Air Force's implementation of the Training with Industry governmentwide authority. EWI assigns selected midcareer professionals—both uniformed and civilian—to private-sector companies "to provide students with management skills and technical expertise as they study best practices with leaders of industry."[138] EWI is broadly considered a successful PPEP and widely praised throughout the Air Force. Senior Air Force acquisition officials believe the program possesses great merit, and one senior official overseeing EWI characterized it as a "pretty loved program."[139] EWI has succeeded primarily because program officials have mitigated disincentives that have undermined other PPEPs and offered positive incentives. EWI has secured stable funding through DAWDF, which has provided it with greater flexibility to support program needs and protect program funding.[140] EWI attempts to offer a compelling rationale to AWF employees regarding the potential benefits of participation by coordinating career placements for returning participants to maximize the advantages of the program.[141] Through these efforts, EWI has lessened the disincentives confronting the workforce and revealed many of the benefits exchange programs can provide.

Despite its successes, EWI remains limited in its ability to eliminate disincentives, limiting the program from fully realizing its potential. Employing offices are still required to pay the salaries for their civilian employees who are on an EWI assignment and still restricted in their ability to temporarily fill the positions of EWI participants.[142] Notwithstanding EWI's best efforts, Air Force civilian personnel still lack a defined, explicit promotion pathway that uses EWI as a means for career advancement.[143] EWI lacks the statutory authority to bring private-sector employees into the Air Force. Due to these disincentives, Air Force front-line managers continue to resist allowing their employees to participate in EWI and participation rates among civilians lag far behind uniformed personnel.[144] A senior leader overseeing EWI stated that personnel concerns among civilian offices suppressed enthusiasm among civilian employees, and that greater personnel flexibility and confidence among Air Force offices would produce a surge in civilian interest.[145] EWI holds valuable lessons for DoD, both in terms of the positive effects of successfully implemented PPEPs and limitations that will continue to undermine their appeal without statutory changes.

Conclusions

Framework for a Comprehensive PPEP for the Acquisition Workforce

To realize the full potential of PPEPs for the DoD AWF, exchange programs must eliminate the disincentives that have dissuaded key actors from participating. Policy changes are necessary to correct the persistent flaws in the framework of PPEPs. A useful template for an AWF PPEP already exists in

[138] Air Force Institute of Technology, *Education with Industry Handbook*, August 2009, accessed June 15, 2018, https://www.afit.edu/cip/docs/EWI_Handbook.pdf.
[139] DoD officials, meetings with Section 809 Panel, October 4, 2017; February 23, 2018; and May 30, 2018.
[140] DoD official, meeting with Section 809 Panel, May 30, 2018.
[141] Ibid.
[142] Ibid.
[143] Ibid.
[144] Ibid.
[145] Ibid.

Section 1104 of the FY 2017 NDAA.[146] The provision authorizes DoD to establish a two-way, comprehensive PPEP for the entire DoD workforce, a scale and scope that does not currently exist with any other PPEP.[147] As defined by Section 1104, no ceiling exists to limit the number of participants in the exchange program (talent exchange) at any given time. Exchange program assignments can range from 3 months to 2 years, and DoD participants in the exchange program must afterwards return to DoD for a period twice the length of the exchange program assignment. For legal purposes, DoD employees are considered to be on detail within DoD for the extent of their assignment in the private sector. DoD is prohibited from using internal transfers, internal reassignments or external contractors to temporarily replace participants in the exchange program. Both DoD and private-sector employees are governed by conflict-of-interest rules that prohibit them from improperly using nonpublic or proprietary information for personal or organizational benefit. Private-sector employees, in particular, are "deemed to be an employee of the Department of Defense" in regards to the core personal conflict-of-interest and integrity statutes of Title 5, Title 18, Title 31, Title 41, and statutes such as the Ethics in Government Act of 1978 and the Federal Tort Claims Act.[148]

The Section 1104 talent exchange is a useful foundation for a new PPEP because it is representative of the standard exchange program model of previous years, and because its recent enactment makes it a relevant reflection of current congressional sentiment regarding exchange programs. The talent exchange was intended to "encourage Department of Defense employees to gain skills that align with functional communities or occupational specialties."[149] Nearly 2 years after its passage, however, the provision is only now being implemented. DoD finally issued regulatory guidelines in July 2018, and was slated to be fully operational by the end of December 2018.[150] DoD's policy guidance for Section 1104 is impressive, providing detailed criteria for administration of the program.[151] Nevertheless, the slow implementation pace has limited the program's effectiveness.

Section 1104 is not specifically tailored to the AWF and does not address the key problems confronting PPEPs. Accordingly, a new PPEP, based on the Section 1104 framework, should be created with application solely to the AWF, while the existing Section 1104 talent exchange would be limited to non-AWF positions. Section 1104 does not specify a range of eligible employees within the DoD workforce by statute (although DoD establishes a floor at GS-12 in its implementation guidance).[152] The AWF PPEP would explicitly define a scope of eligibility between GS-12 and GS-15 for AWF civilian employees, or AcqDemo equivalent starting at NH-III. Within the AWF, these midcareer to late-career employees are experienced enough to take full advantage of the opportunities afforded by their interactions with the private sector, while still being able to use the benefits of the PPEP on DoD's behalf for many years thereafter. Unlike Section 1104, which establishes a minimum duration of 3 months for an exchange program assignment, the AWF PPEP would contain no minimum duration—

[146] Public–private Talent Exchange, 10 U.S.C. § 1599g.
[147] Ibid.
[148] Ibid.
[149] FY 2017 NDAA, Pub. L. No. 114-328, Joint Explanatory Statement of the Committee of Conference, https://www.congress.gov/114/crpt/hrpt840/CRPT-114hrpt840.pdf.
[150] Deputy Secretary of Defense Memorandum, *Public–private Talent Exchange Implementation Procedures*, July 19, 2018, accessed November 6, 2018, https://www.cpms.osd.mil/Content/Documents/PPTE_Memorandum_2018.pdf.
[151] Ibid.
[152] Ibid.

with durations potentially as short as weeks—to provide the greatest flexibility for DoD. The AWF PPEP would also permit the Service Acquisition Executives to oversee the selection process for exchange program participants within their military departments. The AWF PPEP would also address the disincentives confronting employing offices, employees, and the private sector. Once these disincentives have been removed, the AWF PPEP can achieve a better outcome than its predecessors.

Employing Offices: Funding and Personnel Flexibility

DoD employing offices—representing both the office as an institution and the front-line managers within the office—constitute one of the chief pillars of skepticism and resistance toward PPEPs. Their resistance is rooted in two issues: funding concerns due to a budgetary responsibility to continue to pay employee salaries while they are absent in the exchange program and personnel concerns due to the inability of offices to seamlessly replace employees absent for extended periods of time. Both concerns can be addressed within the statutory language of the AWF PPEP.

The most effective way to address the budgetary concerns of employing offices is to ensure a stable source of funding for the AWF PPEP and to provide statutory authority for the AWF PPEP to wield that funding broadly. The proposed PPEP is designed for the AWF, so DoD should be authorized to use DAWDF to cover salary and indirect costs for civilian AWF employees during their participation in the exchange program. DAWDF has successfully funded a host of AWF priorities, and the fund's flexibility underscores its potential as a stable source of funding for a PPEP tailored to the AWF. To reinforce the AWF PPEP as a budgetary priority, DAWDF funding levels should be increased to fully account for the PPEP's budget. Such a funding boost would send a strong message in support of the exchange program and insulate it from competing budgetary pressures.

The AWF PPEP's budget, properly funded through DAWDF, would cover several primary expenditures. The budget would cover all administrative costs and overhead expenses associated with the permanent operation of the PPEP. The budget would also include all salary costs for DoD employees who participate in the AWF PPEP for the full duration of their participation. The AWF PPEP would possess the resources and authority to relieve employing offices of the burden to support employees who have departed for private-sector assignments through the exchange program. Employing offices, freed from using their own budgets to pay the salaries of absent employees, could redirect those resources to other priorities until the employee returns. Section 841 of the FY 2018 NDAA authorized a similar use of DAWDF funding to pay the salaries of participants in the Program Manager Development Program—such an approach could garner widespread support.[153] The AWF PPEP would also fund Temporary Duty (TDY) costs for employees who need to travel to take advantage of exchange program opportunities. TDY funding would broaden the geographic reach of the AWF PPEP because many DoD installations are located in areas that lack potential private-sector partners and would struggle to provide the same local possibilities for employees as large metropolitan regions such as Washington, D.C.[154] The AWF PPEP's authority to fund TDY for participants would prevent employees from being effectively excluded from the program on a purely geographic basis and allow DoD to deploy its resources to maximum effect. The mitigation of budgetary pressures on employing

[153] FY 2018 NDAA, Pub. L. No. 115-91, 131 Stat. 1477 (2017).
[154] DoD official, meeting with Section 809 Panel, May 30, 2018.

offices would reduce one of the primary sources of tension between those offices and PPEPs. Amended budgetary structures and responsibilities could reverse one of the largest disincentives for employing offices to support a PPEP for the AWF.

The other major issue creating disincentives for employing offices to support PPEPs is personnel flexibility. The personnel concerns of employing offices are rooted in the basic procedures governing Executive Branch civilian personnel actions, and compounded by the existing statutory framework of PPEPs such as Section 1104 of the FY 2017 NDAA. PPEPs are unpopular with employing offices and front-line managers who are reluctant to lose skilled employees to private-sector assignments for extended periods of time. Allowing offices to make temporary and term appointments to replace participating employees would address this issue. Existing PPEPs frequently restrict the tools at DoD's disposal to respond quickly to open positions.[155] These constraints are too strict, and temporary and term appointments—which are time-limited appointments that cannot exceed 1 year and 4 years, respectively—could mitigate personnel concerns.[156]

The AWF PPEP would authorize employing offices to make temporary and term appointments to fill an open position for the duration of the participating employee's assignment in the private sector. Offices would be obligated to fund the temporary or term appointment themselves, but they would possess the necessary funding flexibility due to the AWF PPEP's assumption of salary responsibility for participating employees. One senior AWF official argued that temporary and term appointments would "alleviate the burden" on employing offices to "continue to achieve the Agency's mission," and diminish concerns that personnel disruption would undermine the appeal of the AWF PPEP.[157]

The AWF PPEP would also allow participating employees to enroll in DoD's Priority Placement Program on their completion of an exchange program assignment, so long as their assignment surpassed 9 months. This policy would provide further personnel flexibility to employing offices that were required to adapt to long-term employee absences due to the AWF PPEP, and provide an additional guarantee to the employee.

DoD Employees: Career Development

DoD employees have been reluctant to participate in PPEPs without a clear understanding of the benefit to their careers. These doubts are particularly understandable for civilian employees, who lack the more extensive career development structures that exist for uniformed members and are often expected to forge their own career pathways with little guidance from DoD's civilian leadership. Situating the AWF PPEP within a career development framework for AWF employees is the most effective means to eliminate this disincentive. Professional ambition should be an incentive for employees to participate in the exchange program.

The shift toward career pathways and competencies for the AWF recommended above encourages greater emphasis on experiential learning, in part by integrating concepts such as "key work experiences" into the career development framework. PPEPs represent a decidedly useful form of

[155] Public–private Talent Exchange, 10 U.S.C. § 1599g.
[156] Temporary and Term Employment, 5 CFR 316 Subpart C and 5 CFR 316 Subpart D.
[157] DoD official, meeting with Section 809 Panel, November 13, 2017.

experiential learning for AWF employees, with the ability to convey substantial benefits upon individual employees and the workforce as a whole. The AWF PPEP should function well within the shift toward experiential learning. If an employee successfully completes an assignment in the private sector through the AWF PPEP, the achievement should provide tangible benefits in terms of the employee's career development, as defined by the functional leaders of each AWF career field. Specifically, the benefits should manifest through the designation of the AWF PPEP as a "key work experience" that conveys competencies to AWF employees throughout their careers. The benefits should also be reflected in competency metrics that value the knowledge conveyed by the exchange program. If understanding industry practices represented a part of the competencies required to advance in the acquisition field, the AWF PPEP would be a logical vehicle to provide those competencies to AWF employees, and by extension the workforce as a whole.

Clear professional benefits for AWF employees would promote their participation in the AWF PPEP. The exchange program would occupy a tangible position along the progression of an employee's career path within DoD's AWF career fields. It would also assist employees with meeting competency requirements, strengthening the link between the skills gained through the exchange program and AWF competencies. Ambitious employees would view the AWF PPEP as an opportunity to set themselves apart from their peers, having gained a DoD-recognized key work experience and valuable form of experiential learning. Within the AWF culture, the AWF PPEP could become a path to professional advancement, particularly for talented employees seeking to gain competencies to rise quickly through the ranks. This dynamic would complement DoD's desire to encourage PPEP participation and benefit both DoD and its AWF employees.

Private-sector Companies: Organizational Conflict-of-Interest

Private-sector companies' reluctance to embrace two-way PPEPs stems from fear of OCI concerns. Private-sector companies have lacked clarity regarding the scope of acceptable activities for their employees within a DoD PPEP. Two-way exchange programs contain great promise as a means to enhance the communication and understanding between public-sector and private-sector AWF employees. The OCI concerns of private-sector companies represent a crucial obstacle to achieving a successful PPEP for the DoD AWF.

The optimal way to offer clarity to the private sector is to incorporate a framework for avoiding OCI violations within the statutory authority of the AWF PPEP itself. The proposed OCI framework is in no way intended to weaken OCI regulations, which serve an important function in maintaining the integrity of the procurement bidding process. The framework is intended to clearly define the boundaries of acceptable activities for a private-sector company and its participating employees. With the AWF PPEP's interpretation of OCI clearly defined, the private sector will simply need to abide by the PPEP rules to avoid the risk of an OCI protest.

The central principle of the AWF PPEP's treatment of OCI should be a straightforward statutory declaration that private-sector employees' participation, in and of itself, does not create an OCI for their employers. The statutory authority of the AWF PPEP would establish that as a matter of law, an OCI for an employing private-sector organization shall not be created by virtue of an individual's participation in the exchange program. At the same time, the AWF PPEP would also establish that private-sector participants would be prohibited from gaining access to trade secrets and other

nonpublic information that possesses commercial value to their private-sector employers. Specific and tangible evidence of improper access to information would be required to justify a complaint.

By creating a legal distinction between simply participating in the AWF PPEP and obtaining improper access to trade secrets and nonpublic information of commercial value, the statutory OCI framework would clarify the implementation of OCI within the exchange program. The private sector could allow employees to receive DoD assignments without fear of violating OCI regulations, as long as the employees themselves complied with the rules and management decisions made by DoD. Furthermore, the AWF PPEP would bear responsibility to ensure that DoD assignments for private-sector employees did not create conflicts-of-interest that could run afoul of OCI (and PCI) standards. Under the rules of the AWF PPEP, no exchange program assignment could be finalized without the mutual agreement of DoD, the private-sector company, and the private-sector employee. A negotiation process would require DoD to gain the support of the private sector for an assignment, while providing an opportunity to guarantee that assignments would comply with all necessary conflict-of-interest guidelines.

The implementation of the statutory OCI framework would not require any great innovation by DoD. Current exchange programs that assign DoD employees to the private sector already account for potential conflicts-of-interest by directing employees to particular positions on their return to government service. For example, the Air Force's EWI program specifically guides employees' next assignment within DoD to maximize their benefit to the department and minimize any potential complications from their participation in the exchange program. The AWF PPEP would bear a similar responsibility.

Implementation

Legislative Branch

- Create a new PPEP in Chapter 87 of Title 10, U.S. Code.
  - Use the public–private talent exchange, codified at 10 U.S.C. § 1599g, as a template for the PPEP.
  - Limit the scope of the PPEP to AWF employees.
  - Define the eligibility for the PPEP between GS-12 and GS-15, with equivalent personnel grades in the AcqDemo and military personnel systems.
  - Decline to establish any minimum duration for assignments within the PPEP.
  - Direct the use of DAWDF to fund the PPEP budget.
  - Direct the PPEP budget to cover the salary costs of participating employees for the full duration of their assignment, notwithstanding any prohibition on the use of DAWDF funds to pay the base salaries of DoD employees.
  - Direct the PPEP budget to cover the TDY costs of participating employees for the full duration of their assignment.
  - Allow the use of temporary and term appointments to replace participating employees for the full duration of their assignment, pursuant to the regulations established at 5 CFR 316 Subparts C and D.

  - Establish that employees who successfully complete a PPEP assignment extending at least 9 months gain eligibility for enrollment in DoD's Priority Placement Program.
  - Establish that an OCI cannot be created for a private-sector company by virtue of a company employee's participation, in and of itself, in the PPEP.
  - Eliminate the consideration of specific private-sector concerns and areas of expertise in the implementation of the PPEP.

- Increase annual appropriations for DAWDF to fully support the budgetary requirements of the PPEP.

- Amend 10 U.S.C. § 1599g to limit the scope of the public–private talent exchange to non-AWF employees.

Executive Branch

- Establish that the successful completion of a PPEP assignment shall constitute a key work experience in regards to AWF career paths.

- Establish that the successful completion of a PPEP assignment shall contribute toward AWF competency requirements.

Note: Explanatory report language and draft legislative text can be found in the Implementation Details subsection at the end of Section 5.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.

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Section 5
Acquisition Workforce

Implementation Details

RECOMMENDED REPORT LANGUAGE

SEC. ___. DEFENSE ACQUISITION CERTIFICATION AND EDUCATION REQUIREMENTS.

This section would amend 10 U.S.C. § 1701a, Management for acquisition workforce excellence.

The committee notes that the Department of Defense (DoD) could better prepare its acquisition workforce to perform in their current jobs and prepare for future positions by modernizing its certification process to emphasize professional skills that are transferable across the workforce and industry. The committee recognizes that DoD could achieve that goal by implementing a professional certification program based on third-party accredited, nationally or internationally recognized standards, where they exist. If a program based on a third-party accredited standard does not exist for a particular acquisition career field, the Secretary would be authorized to establish a certification requirement using the best approach determined by the Secretary for meeting the requirement, including implementation through entities outside DoD.

This section also would amend 10 U.S.C. § 1724, Contracting positions: qualification requirements, to strike the requirement for contracting officers to have completed at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education, and make conforming amendments to 10 U.S.C. § 1732, Selection criteria and procedures. The committee notes that the Department has succeed in its goal of raising the professionalism of its acquisition workforce since enactment of the Defense Acquisition Workforce Improvement Act (DAWIA) in 1990 and it is no longer necessary to statutorily mandate positive education requirements within DAWIA. This would allow the Department the flexibility to establish the specific educational requirements that should be applied to a particular workforce career field.

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SEC. ___. DEFENSE ACQUISITION WORKFORCE CERTIFICATION AND EDUCATION REQUIREMENTS.

(a) PROFESSIONAL CERTIFICATION REQUIREMENT.—

(1) PROFESSIONAL CERTIFICATION REQUIRED FOR ALL ACQUISITION WORKFORCE PERSONNEL.—Section 1701a of title 10, United States Code, is amended—

(A) by redesignating subsections (c) and (d) as subsections (d) and (e), respectively; and

(B) by inserting after subsection (b) the following new subsection (c):

"(c) PROFESSIONAL CERTIFICATION.—

"(1) The Secretary of Defense shall implement a certification program to provide for a professional certification requirement for all members of the acquisition workforce. Except as provided in paragraph (2), the certification requirement for any acquisition workforce career field shall be based on standards under a third-party accredited program based on nationally or internationally recognized standards.

"(2) If the Secretary determines that, for a particular acquisition workforce career field, a third-party accredited program based on nationally or internationally recognized standards does not exist, the Secretary shall establish the certification requirement for that career field that conforms with the practices of national or international accrediting bodies. The certification requirement for any such career field shall be implemented using the best approach determined by the Secretary for meeting the certification requirement for that career field, including implementation through entities outside the Department of Defense and may be designed and implemented without regard to section 1746 of this title.".

(2) CERTIFICATION RENEWAL.—Paragraph (3) of section 1723(a) of such title is amended by striking the second sentence.

(3) PARTICIPATION IN PROFESSIONAL ASSOCIATIONS.— Section 1701a(b) of such title is amended—

(A) by redesignating paragraphs (6), (7), (8), and (9) as paragraphs (7), (8), (9), and (10), respectively; and

(B) by inserting after paragraph (5) the following new paragraph (6):

"(6) authorize members of the acquisition workforce to participate in professional associations, consistent with their individual performance plans, linked to both professional development and opportunities to gain leadership and management skills;".

(4) EFFECTIVE DATE.—The Secretary of Defense shall implement procedures to institute the program required by subsection (c) of section 1701a of title 10, United States Code, as added by paragraph (1), not later than 180 days after the date of the enactment of this Act.

(b) ELIMINATION OF STATUTORY REQUIREMENT FOR COMPLETION OF 24 SEMESTER CREDIT HOURS.—

(1) QUALIFICATION REQUIREMENTS FOR CONTRACTING POSITIONS.—Section 1724 of title 10, United States Code, is amended—

(A) in subsection (a)(3)—

(i) by striking "(A)" after "(3)"; and

(ii) by striking ", and (B)" and all that follows through "and management"; and

(B) in subsection (b), by striking "requirements" in the first sentences of paragraphs (1) and (2) and inserting "requirement";

(C) in subsection (e)(2)—

(i) by striking "shall have—" and all that follows through "been awarded" and inserting "shall have been awarded";

(ii) by striking "; or" and inserting a period; and

(iii) by striking subparagraph (B); and

(D) in subsection (f), by striking ", including—" and all that follows and inserting a period.

(2) SELECTION CRITERIA AND PROCEDURES.—Section 1732 of such title is amended—

(A) in subsection (b)(1)—

(i) by striking "Such requirements," and all the follows through "the person—" and inserting "Such requirements shall include a requirement that the person—";

(ii) by striking subparagraph (B); and

(iii) by redesignating clauses (i) and (ii) as subparagraphs (A) and (B), respectively, and realigning those subparagraphs so as to be 4 ems from the margin; and

(B) in subsection (c), by striking "requirements of subsections (b)(1)(A) and (b)(1)(B)" in paragraphs (1) and (2) and inserting "requirement of subsection (b)(1)".

(c) DAU CURRICULUM DEVELOPMENT.—Section 1746(c) of title 10, United States Code, is amended by inserting ", and with commercial training providers," after "military departments".

Changes to Existing Law made by the Legislative Proposal related to education requirements:

TITLE 10, UNITED STATES CODE

CHAPTER 87—DEFENSE ACQUISITION WORKFORCE

§1701. Management policies

(a) POLICIES AND PROCEDURES.—The Secretary of Defense shall establish policies and procedures for the effective management (including accession, education, training, and career development) of persons serving in acquisition positions in the Department of Defense.

(b) UNIFORM IMPLEMENTATION.—The Secretary shall ensure that, to the maximum extent practicable, acquisition workforce policies and procedures established in accordance with this chapter are uniform in their implementation throughout the Department of Defense.

§1701a. Management for acquisition workforce excellence

(a) Purpose.—The purpose of this chapter is to require the Department of Defense to develop and manage a highly skilled professional acquisition workforce—

(1) in which excellence and contribution to mission is rewarded;

(2) which has the technical expertise and business skills to ensure the Department receives the best value for the expenditure of public resources;

(3) which serves as a model for performance management of employees of the Department; and

(4) which is managed in a manner that complements and reinforces the management of the defense acquisition system pursuant to chapter 149 of this title.

(b) Performance Management.—In order to achieve the purpose set forth in subsection (a), the Secretary of Defense shall—

(1) use the full authorities provided in subsections (a) through (d) of section 9902 of title 5, including flexibilities related to performance management and hiring and to training of managers;

(2) require managers to develop performance plans for individual members of the acquisition workforce in order to give members an understanding of how their performance contributes to their organization's mission and the success of the defense acquisition system (as defined in section 2545 of this title);

(3) to the extent appropriate, use the lessons learned from the acquisition demonstration project carried out under section 1762 of this title related to contribution-based compensation and appraisal, and how those lessons may be applied within the General Schedule system;

(4) develop attractive career paths;

(5) encourage continuing education and training;

(6) authorize members of the acquisition workforce to participate in professional associations, consistent with their individual performance plans, linked to both professional development and opportunities to gain leadership and management skills;

(7) develop appropriate procedures for warnings during performance evaluations for members of the acquisition workforce who consistently fail to meet performance standards;

(8) take full advantage of the Defense Civilian Leadership Program established under section 1112 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111–84; 123 Stat. 2496; 10 U.S.C. 1580 note prec.);

(9) use the authorities for highly qualified experts under section 9903 of title 5, to hire experts who are skilled acquisition professionals to—

(A) serve in leadership positions within the acquisition workforce to strengthen management and oversight;

(B) provide mentors to advise individuals within the acquisition workforce on their career paths and opportunities to advance and excel within the acquisition workforce; and

(C) assist with the design of education and training courses and the training of individuals in the acquisition workforce; and

(10) use the authorities for expedited security clearance processing pursuant to section 1564 of this title.

(c) PROFESSIONAL CERTIFICATION.—

(1) The Secretary of Defense shall implement a certification program to provide for a professional certification requirement for all members of the acquisition workforce. Except as provided in paragraph (2), the certification requirement for any acquisition workforce career field shall be based on standards under a third-party accredited program based on nationally or internationally recognized standards.

(2) If the Secretary determines that, for a particular acquisition workforce career field, a third-party accredited program based on nationally or internationally recognized standards does not exist, the Secretary shall establish the certification requirement for that career field that conforms with the practices of national or international accrediting bodies. The certification requirement for any such career field shall be implemented using the best approach determined by the Secretary for meeting the certification requirement for that career field, including implementation through entities outside the Department of Defense and may be designed and implemented without regard to section 1746 of this title.

~~(c)~~ ***(d)*** NEGOTIATIONS.—Any action taken by the Secretary under this section, or to implement this section, shall be subject to the requirements of chapter 71 of title 5.

~~(d)~~ ***(e)*** REGULATIONS.—Any rules or regulations prescribed pursuant to this section shall be deemed an agency rule or regulation under section 7117(a)(2) of title 5, and shall not be deemed a Government-wide rule or regulation under section 7117(a)(1) of such title.

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§1723. General education, training, and experience requirements

(a) QUALIFICATION REQUIREMENTS.—(1) The Secretary of Defense shall establish education, training, and experience requirements for each acquisition position, based on the level of complexity of duties carried out in the position. In establishing such requirements, the Secretary shall ensure the availability and sufficiency of training in all areas of acquisition, including additional training courses with an emphasis on services contracting, market research strategies (including assessments of local contracting capabilities), long-term sustainment strategies, information technology, and rapid acquisition.

(2) In establishing such requirements for positions other than critical acquisition positions designated pursuant to section 1733 of this title, the Secretary may state the requirements by categories of positions.

(3) The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish requirements for continuing education and periodic renewal of an individual's certification. ~~**Any requirement for a certification renewal shall not require a renewal more often than once every five years.**~~

(b) CAREER PATH REQUIREMENTS.—For each career path, the Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish requirements for the completion of course work and related on-the-job training and demonstration of qualifications in the critical acquisition-related duties and tasks of the career path. The Secretary of Defense, acting through the Under Secretary, shall also—

(1) encourage individuals in the acquisition workforce to maintain the currency of their acquisition knowledge and generally enhance their knowledge of related acquisition management disciplines through academic programs and other self-developmental activities; and

(2) develop key work experiences, including the creation of a program sponsored by the Department of Defense that facilitates the periodic interaction between individuals in the acquisition workforce and the end user in such end user's environment to enhance the knowledge base of such workforce, for individuals in the acquisition workforce so that the individuals may gain in-depth knowledge and experience in the acquisition process and become seasoned, well-qualified members of the acquisition workforce.

(c) LIMITATION ON CREDIT FOR TRAINING OR EDUCATION.—Not more than one year of a period of time spent pursuing a program of academic training or education in acquisition may be counted toward fulfilling any requirement established under this chapter for a certain period of experience.

§1724. Contracting positions: qualification requirements

(a) CONTRACTING OFFICERS.—The Secretary of Defense shall require that, in order to qualify to serve in an acquisition position as a contracting officer with authority to award or administer contracts for amounts above the simplified acquisition threshold referred to in section 2304(g) of this title, an employee of the Department of Defense or member of the armed forces (other than the Coast Guard) must, except as provided in subsections (c) and (d)—

(1) have completed all contracting courses required for a contracting officer (A) in the case of an employee, serving in the position within the grade of the General Schedule in which the employee is serving, and (B) in the case of a member of the armed forces, in the member's grade;

(2) have at least two years of experience in a contracting position;

(3)~~(A)~~ have received a baccalaureate degree from an accredited educational institution authorized to grant baccalaureate degrees~~, and (B) have completed at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education in any of the following disciplines: accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management~~; and

(4) meet such additional requirements, based on the dollar value and complexity of the contracts awarded or administered in the position, as may be established by the Secretary of Defense for the position.

(b) GS–1102 SERIES POSITIONS AND SIMILAR MILITARY POSITIONS.—(1) The Secretary of Defense shall require that in order to qualify to serve in a position in the Department of Defense that is in the GS–1102 occupational series an employee or potential employee of the Department of Defense meet the ~~requirements~~ ***requirement*** set forth in paragraph (3) of subsection (a). The Secretary may not require that in order to serve in such a position an employee or potential employee meet any of the requirements of paragraphs (1) and (2) of that subsection.

(2) The Secretary of Defense shall require that in order for a member of the armed forces to be selected for an occupational specialty within the armed forces that (as determined by the Secretary) is similar to the GS–1102 occupational series a member of the armed forces meet the ~~requirements~~ ***requirement*** set forth in paragraph (3) of subsection (a). The Secretary may not require that in order to be selected for such an occupational specialty a member meet any of the requirements of paragraphs (1) and (2) of that subsection.

(c) EXCEPTIONS.—The qualification requirements imposed by the Secretary of Defense pursuant to subsections (a) and (b) shall not apply to an employee of the Department of Defense or member of the armed forces who—

(1) served as a contracting officer with authority to award or administer contracts in excess of the simplified acquisition threshold on or before September 30, 2000;

(2) served, on or before September 30, 2000, in a position either as an employee in the GS–1102 series or as a member of the armed forces in a similar occupational specialty;

(3) is in the contingency contracting force; or

(4) is described in subsection (e)(1)(B).

(d) WAIVER.—The Secretary of Defense may waive any or all of the requirements of subsections (a) and (b) with respect to an employee of the Department of Defense or member of the armed forces if the Secretary determines that the individual possesses significant potential for advancement to levels of greater responsibility and authority, based on demonstrated job performance and qualifying experience. With respect to each waiver granted

under this subsection, the Secretary shall set forth in a written document the rationale for the decision of the Secretary to waive such requirements.

(e) DEVELOPMENTAL OPPORTUNITIES.—(1) The Secretary of Defense may—

(A) establish or continue one or more programs for the purpose of recruiting, selecting, appointing, educating, qualifying, and developing the careers of individuals to meet the requirements in subparagraphs (A) and (B) of subsection (a)(3);

(B) appoint individuals to developmental positions in those programs; and

(C) separate from the civil service after a three-year probationary period any individual appointed under this subsection who fails to meet the requirements described in subsection (a)(3).

(2) To qualify for any developmental program described in paragraph (1)(B), an individual shall have—

~~(A)~~ been awarded a baccalaureate degree, with a grade point average of at least 3.0 (or the equivalent), from an accredited institution of higher education authorized to grant baccalaureate degrees~~; or~~ .

~~(B) completed at least 24 semester credit hours or the equivalent of study from an accredited institution of higher education in any of the disciplines of accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, or organization and management.~~

(f) CONTINGENCY CONTRACTING FORCE.—The Secretary shall establish qualification requirements for the contingency contracting force consisting of members of the armed forces whose mission is to deploy in support of contingency operations and other operations of the Department of Defense~~, including —~~ .

~~(1) completion of at least 24 semester credit hours or the equivalent of study from an accredited institution of higher education or similar educational institution in any of the disciplines of accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, or organization and management; or~~

~~(2) passing an examination that demonstrates skills, knowledge, or abilities comparable to that of an individual who has completed at least 24 semester credit hours or the equivalent of study in any of the disciplines described in paragraph (1).~~

*****

§1732. Selection criteria and procedures

(a) SELECTION CRITERIA AND PROCEDURES.—Selection for membership in the Acquisition Corps shall be made in accordance with criteria and procedures established by the Secretary of Defense.

(b) ELIGIBILITY CRITERIA.—Except as provided in subsections (c) and (d), only persons who meet all of the following requirements may be considered for service in the Corps:

(1) The person must meet the educational requirements prescribed by the Secretary of Defense. Such requirements~~, at a minimum,~~ shall include ~~both of the following:~~

~~(A) A~~ ***a*** requirement that the person—

~~(i)~~ ***(A)*** has received a baccalaureate degree at an accredited educational institution authorized to grant baccalaureate degrees, or

~~(ii)~~ ***(B)*** possess significant potential for advancement to levels of greater responsibility and authority, based on demonstrated analytical and decisionmaking capabilities, job performance, and qualifying experience.

~~(B) A requirement that the person has completed —~~

~~(i) at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education from among the following disciplines: accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management; or~~

~~(ii) at least 24 semester credit hours (or the equivalent) from an accredited institution of higher education in the person's career field and 12 semester credit hours (or the equivalent) from such an institution from among the disciplines listed~~

~~**in clause (i) or equivalent training as prescribed by the Secretary to ensure proficiency in the disciplines listed in clause (i).**~~

(2) The person must meet experience requirements prescribed by the Secretary of Defense. Such requirements shall, at a minimum, include a requirement for at least four years of experience in an acquisition position in the Department of Defense or in a comparable position in industry or government.

(3) The person must meet such other requirements as the Secretary of Defense or the Secretary of the military department concerned prescribes by regulation.

(c) EXCEPTIONS.—(1) The ~~**requirements of subsections (b)(1)(A) and (b)(1)(B)**~~ ***requirement of subsection (b)(1)*** shall not apply to any employee who, on October 1, 1991, has at least 10 years of experience in acquisition positions or in comparable positions in other government agencies or the private sector.

(2) The ~~**requirements of subsections (b)(1)(A) and (b)(1)(B)**~~ ***requirement of subsection (b)(1)*** shall not apply to any employee who is serving in an acquisition position on October 1, 1991, and who does not have 10 years of experience as described in paragraph (1) if the employee passes an examination considered by the Secretary of Defense to demonstrate skills, knowledge, or abilities comparable to that of an individual who has completed at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education from among the following disciplines: accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management.

(d) WAIVER.—(1) Except as provided in paragraph (2), the Secretary of Defense may waive any or all of the requirements of subsection (b) with respect to an employee if the Secretary determines that the employee possesses significant potential for advancement to levels of greater responsibility and authority, based on demonstrated analytical and decisionmaking capabilities, job performance, and qualifying experience. With respect to each waiver granted under this subsection, the Secretary shall set forth in a written document the rationale for the decision of the Secretary to waive such requirements.

(2) The Secretary may not waive the requirements of subsection (b)(1)(A)(ii).

(e) MOBILITY STATEMENTS.—(1) The Secretary of Defense is authorized to require civilians in the Acquisition Corps to sign mobility statements.

(2) The Secretary of Defense shall identify which categories of civilians in the Acquisition Corps, as a condition of serving in the Corps, shall be required to sign mobility statements. The Secretary shall make available published information on such identification of categories.

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§1746. Defense Acquisition University

(a) DEFENSE ACQUISITION UNIVERSITY STRUCTURE.—The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish and maintain a defense acquisition university structure to provide for—

(1) the professional educational development and training of the acquisition workforce; and

(2) research and analysis of defense acquisition policy issues from an academic perspective.

(b) CIVILIAN FACULTY MEMBERS.—(1) The Secretary of Defense may employ as many civilians as professors, instructors, and lecturers in the defense acquisition university structure as the Secretary considers necessary.

(2) The compensation of persons employed under this subsection shall be as prescribed by the Secretary.

(3) In this subsection, the term "defense acquisition university" includes the Defense Systems Management College.

(c) CURRICULUM DEVELOPMENT.—The President of the Defense Acquisition University shall work with the relevant professional schools and degree-granting institutions of the Department of Defense and military departments***, and with commercial training providers,*** to ensure that best practices are used in curriculum development to support acquisition workforce positions.

(d) COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.—(1) In engaging in research and development projects pursuant to subsection (a) of section 2358 of this title by a contract, cooperative agreement, or grant pursuant to subsection (b)(1) of such section, the Secretary may enter into such contract or cooperative agreement or award such grant through the Defense Acquisition University.

(2) The Defense Acquisition University shall be considered a Government-operated Federal laboratory for purposes of section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a).

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RECOMMENDED REPORT LANGUAGE

SEC. ___. DEFENSE ACQUISITION WORKFORCE CAREER DEVELOPMENT.

This section would amend title 10, United States Code, by modifying several sections of Chapter 87 to institutionalize career paths for all acquisition workforce career fields, and by inserting a new section 1765 to develop competencies for every acquisition career field.

The committee is aware that while Chapter 87 has general career path requirements in several sections, none specifically apply to all acquisition career fields, and do not mandate recommended attributes to enhance a highly qualified workforce, such as key work experience. The committee notes that a key factor in the success of this implementation is in Section 1721, as amended; this would require the Department of Defense to identify which specific career fields represent the acquisition workforce in order to better institutionalize career paths throughout all acquisition career fields.

The committee recognizes the scope of the new Section 1765, Competency development, is designed to establish proficiency standards throughout the acquisition workforce in an effort to qualify and assess the technical and nontechnical competencies for all acquisition career fields. The committee notes that the inclusion in statute of such standards will require the Department to establish occupational qualifiers to enable the workforce to reach their full potential.

This section would make several conforming amendments to legislative provisions associated with career path requirements in title 10, United States Code.

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SEC. ___. DEFENSE ACQUISITION WORKFORCE CAREER DEVELOPMENT.

(a) CAREER PATHS.—

(1) CAREER PATH REQUIRED FOR EACH ACQUISITION WORKFORCE CAREER FIELD.—Section 1701a(b)(4) of title 10, United States Code, is amended by striking "develop attractive career paths" and inserting "develop and implement a career path, as described in section 1722(a) of this title, for each career field designated by the Secretary under section 1721(a) of this title as an acquisition workforce career field".

(2) CONFORMING AMENDMENTS.—Section 1722(a) of such title is amended—

(A) by striking "appropriate career paths" and inserting "an appropriate career path"; and

(B) by striking "are identified" and inserting "is identified for each acquisition workforce career field".

(3) DEADLINE FOR IMPLEMENTATION OF CAREER PATHS.—The implementation of a career path for each acquisition workforce career field required by paragraph (4) of section 1701a(b) of title 10, United States Code (as amended by paragraph (1)), shall be completed by the Secretary of Defense not later than the end of the two-year period beginning on the date of the enactment of this Act.

(b) CAREER FIELDS.—

(1) DESIGNATION OF ACQUISITION WORKFORCE CAREER FIELDS.—Section 1721(a) of such title is amended by adding at the end the following new sentence: "The Secretary shall also designate in regulations those career fields in the Department of Defense that are acquisition workforce career fields for purposes of this chapter.".

(2) CLERICAL AMENDMENTS.—(A) The heading of such section is amended to read as follows:

"**§ 1721. Designation of acquisition positions and acquisition workforce career fields**".

(B) The item relating to such section in the table of sections at the beginning of subchapter II of chapter 87 of such title is amended to read as follows:

"1721. Designation of acquisition positions and acquisition workforce career fields.".

(3)(A) The heading of subchapter II of chapter 87 of such title is amended to read as follows:

"SUBCHAPTER II—ACQUISITION POSITIONS AND ACQUISITION WORKFORCE CAREER FIELDS"

(B) The item relating to such subchapter in the table of subchapters at the beginning of such chapter is amended to read as follows:

"II. Acquisition Positions And Acquisition Workforce Career Fields …….……1721".

(4) DEADLINE FOR DESIGNATION OF CAREER FIELDS.—The designation of acquisition workforce career fields required by the second sentence of section 1721(a) of title 10, United States Code (as added by paragraph (1)), shall be made by the Secretary of Defense not later than the end of the six-month period beginning on the date of the enactment of this Act.

(c) KEY WORK EXPERIENCES.—

(1) DEVELOPMENT OF KEY WORK EXPERIENCES FOR EACH ACQUISITION WORKFORCE CAREER FIELD.—Section 1722b of such title is amended by adding at the end the following new subsection:

"(c) KEY WORK EXPERIENCES.—In carrying out subsection (b)(2), the Secretary shall ensure that key work experiences, in the form of multidiscipline training, are developed for each acquisition workforce career field.".

(2) PLAN FOR IMPLEMENTATION of KEY WORK EXPERIENCES.—Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a plan identifying the specific actions the Department of Defense has taken, and is planning to take, to develop and establish key work experiences for each acquisition workforce career field as required by subsection (c) of section 1722b of title 10, United States Code, as added by paragraph (1). The plan shall include specification of the percentage of the acquisition workforce, or funds available for administration of the acquisition workforce on an annual basis, that the Secretary will dedicate towards developing such key work experiences.

(d) APPLICABILITY OF CAREER PATH REQUIREMENTS TO ALL MEMBERS OF ACQUISITION WORKFORCE.—Section 1723(b) of such title is amended by striking "the critical acquisition-related".

(e) COMPETENCY DEVELOPMENT.—

(1) IN GENERAL.—(A) Subchapter V of chapter 87 of such title is amended by adding at the end the following new section:

"**§ 1765. Competency development**

"(a) IN GENERAL.—For each acquisition workforce career field, the Secretary of Defense shall establish, for the civilian personnel in that career field, defined proficiency standards and technical and nontechnical competencies which shall be used in personnel qualification assessments.

"(b) NEGOTIATIONS.—Any action taken by the Secretary under this section, or to implement this section, shall not be subject to the requirements of chapter 71 of title 5.".

(B) The table of sections at the beginning of such subchapter II is amended by adding at the end the following new item:

"1765. Competency development.".

(2) DEADLINE FOR IMPLEMENTATION.—The establishment of defined proficiency standards and technical and nontechnical competencies required by section 1765 of title 10, United States Code (as added by paragraph (1)), shall be made by the Secretary of Defense not later than the end of the two-year period beginning on the date of the enactment of this Act.

(f) TERMINATION OF DEFENSE ACQUISITION CORPS.—

(1) The Acquisition Corps for the Department of Defense referred to in section 1731(a) of title 10, United States Code, is terminated.

(2) Section 1733 of title 10, United States Code, is amended—

(A) by striking subsection (a); and

(B) by redesignating subsection (b) as subsection (a).

(3) Subsection (b) of section 1731 of such title is transferred to the end of section 1733 of such title, as amended by paragraph (2), and amended—

(A) by striking "ACQUISITION CORPS" in the heading and inserting "the ACQUISITION WORKFORCE"; and

(B) by striking "selected for the Acquisition Corps" and inserting "in the acquisition workforce".

(4) Subsection (e) of section 1732 of such title is transferred to the end of section 1733 of such title, as amended by paragraphs (2) and (3), redesignated as subsection (c), and amended—

(A) by striking “in the Acquisition Corps” in paragraphs (1) and (2) and inserting “in critical acquisition positions”; and

(B) by striking "serving in the Corps” in paragraph (2) and inserting “employment”.

(5) Sections 1731 and 1732 of such title are repealed.

(6)(A) Section 1733 of such title, as amended by paragraphs (2), (3), and (4), is redesignated as section 1731.

(B) The table of sections at the beginning of subchapter III of chapter 87 of such title is amended by striking the items relating to sections 1731, 1732, and 1733 and inserting the following new item:

“1731. Critical acquisition positions.”.

(7)(A) The heading of subchapter III of chapter 87 of such title is amended to read as follows:

“SUBCHAPTER III—CRITICAL ACQUISITION POSITIONS”

(B) The item relating to such subchapter in the table of subchapters at the beginning of such chapter is amended to read as follows:

“III. Critical Acquisition Positions …….…….…….1731”.

(8) Section 1725 of such title is amended—

(A) in subsection (a)(1), by striking “Defense Acquisition Corps” and inserting “acquisition workforce”; and

(B) in subsection (d)(2), by striking "of the Defense Acquisition Corps" and inserting "in the acquisition workforce serving in critical acquisition positions".

(9) Section 1734 of such title is amended—

(A) by striking "of the Acquisition Corps" in subsections (e)(1) and (h) and inserting "of the acquisition workforce"; and

(B) in subsection (g)—

(i) by striking "of the Acquisition Corps" in the first sentence and inserting "of the acquisition workforce";

(ii) by striking "of the Corps" and inserting "of the acquisition workforce"; and

(iii) by striking "of the Acquisition Corps" in the second sentence and inserting "of the acquisition workforce in critical acquisition positions".

(10) Section 1737 of such title is amended—

(A) in subsection (a)(1), by striking "of the Acquisition Corps" and inserting "of the acquisition workforce"; and

(B) in subsection (b), by striking "of the Corps" and inserting "of the acquisition workforce".

(11) Section 1742(a)(1) of such title is amended by striking "the Acquisition Corps" and inserting "acquisition positions in the Department of Defense".

Changes to Existing Law made by the Legislative Proposal related to career development:

TITLE 10, UNITED STATES CODE

CHAPTER 87—DEFENSE ACQUISITION WORKFORCE

Subchapter

Sec.

I. General Authorities and Responsibilities **1701**

II. ~~Defense~~ Acquisition Positions *and Acquisition Workforce Career Fields* **1721**

III. ~~Acquisition Corps~~ *Critical Acquisition Positions* **1731**

IV. Education and Training **1741**

V. General Management Provisions **1761**

SUBCHAPTER I—GENERAL AUTHORITIES AND RESPONSIBILITIES

Sec.
1701. Management policies.
1701a. Management for acquisition workforce excellence.
1702. Under Secretary of Defense for Acquisition, Technology, and Logistics: authorities and responsibilities.
[1703. Repealed.]
1704. Service acquisition executives: authorities and responsibilities.
1705. Department of Defense Acquisition Workforce Development Fund.
1706. Government performance of certain acquisition functions.
[1707. Repealed.]

§1701. Management policies

(a) Policies and Procedures.—The Secretary of Defense shall establish policies and procedures for the effective management (including accession, education, training, and career development) of persons serving in acquisition positions in the Department of Defense.

(b) Uniform Implementation.—The Secretary shall ensure that, to the maximum extent practicable, acquisition workforce policies and procedures established in accordance with this chapter are uniform in their implementation throughout the Department of Defense.

§1701a. Management for acquisition workforce excellence

(a) Purpose.—The purpose of this chapter is to require the Department of Defense to develop and manage a highly skilled professional acquisition workforce—

(1) in which excellence and contribution to mission is rewarded;

(2) which has the technical expertise and business skills to ensure the Department receives the best value for the expenditure of public resources;

(3) which serves as a model for performance management of employees of the Department; and

(4) which is managed in a manner that complements and reinforces the management of the defense acquisition system pursuant to chapter 149 of this title.

(b) Performance Management.—In order to achieve the purpose set forth in subsection (a), the Secretary of Defense shall—

(1) use the full authorities provided in subsections (a) through (d) of section 9902 of title 5, including flexibilities related to performance management and hiring and to training of managers;

(2) require managers to develop performance plans for individual members of the acquisition workforce in order to give members an understanding of how their performance contributes to their organization's mission and the success of the defense acquisition system (as defined in section 2545 of this title);

(3) to the extent appropriate, use the lessons learned from the acquisition demonstration project carried out under section 1762 of this title related to contribution-based compensation and appraisal, and how those lessons may be applied within the General Schedule system;

(4) ~~develop attractive career paths~~ ***develop and implement a career path, as described in section 1722(a) of this title, for each career field designated by the Secretary under section 1721(a) of this title as an acquisition workforce career field***;

(5) encourage continuing education and training;

(6) develop appropriate procedures for warnings during performance evaluations for members of the acquisition workforce who consistently fail to meet performance standards;

(7) take full advantage of the Defense Civilian Leadership Program established under section 1112 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111–84; 123 Stat. 2496; 10 U.S.C. 1580 note prec.);

(8) use the authorities for highly qualified experts under section 9903 of title 5, to hire experts who are skilled acquisition professionals to—

(A) serve in leadership positions within the acquisition workforce to strengthen management and oversight;

(B) provide mentors to advise individuals within the acquisition workforce on their career paths and opportunities to advance and excel within the acquisition workforce; and

(C) assist with the design of education and training courses and the training of individuals in the acquisition workforce; and

(9) use the authorities for expedited security clearance processing pursuant to section 1564 of this title.

(c) Negotiations.—Any action taken by the Secretary under this section, or to implement this section, shall be subject to the requirements of chapter 71 of title 5.

(d) Regulations.—Any rules or regulations prescribed pursuant to this section shall be deemed an agency rule or regulation under section 7117(a)(2) of title 5, and shall not be deemed a Government-wide rule or regulation under section 7117(a)(1) of such title.

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SUBCHAPTER II—~~DEFENSE~~ ACQUISITION POSITIONS ***AND ACQUISITION WORKFORCE CAREER FIELDS***

Sec.
1721. Designation of acquisition positions.
1722. Career development.
1722a. Special requirements for military personnel in the acquisition field.
1722b. Special requirements for civilian employees in the acquisition field.
1723. General education, training, and experience requirements.
1724. Contracting positions: qualification requirements.
1725. Senior Military Acquisition Advisors.

§1721. Designation of acquisition positions *and acquisition workforce career fields*

(a) Designation.—The Secretary of Defense shall designate in regulations those positions in the Department of Defense that are acquisition positions for purposes of this chapter. ***The Secretary shall also designate in regulations those career fields in the Department of Defense that are acquisition workforce career fields for purposes of this chapter.***

(b) Required Positions.—In designating the positions under subsection (a), the Secretary shall include, at a minimum, all acquisition-related positions in the following areas:

(1) Program management.
(2) Systems planning, research, development, engineering, and testing.
(3) Procurement, including contracting.
(4) Industrial property management.
(5) Logistics.
(6) Quality control and assurance.
(7) Manufacturing and production.
(8) Business, cost estimating, financial management, and auditing.
(9) Education, training, and career development.
(10) Construction.
(11) Joint development and production with other government agencies and foreign countries.

(c) Management Headquarters Activities.—The Secretary also shall designate as acquisition positions under subsection (a) those acquisition-related positions which are in management headquarters activities and in management headquarters support activities. For purposes of this subsection, the terms "management headquarters activities" and "management headquarters support activities" have the meanings given those terms in Department of Defense Directive 5100.73, entitled "Department of Defense Management Headquarters and Headquarters Support Activities", dated November 12, 1996.

§1722. Career development

(a) Career Paths.—The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall ensure that ~~appropriate career paths~~ ***an appropriate career path*** for civilian and military personnel who wish to pursue careers in acquisition ~~are identified~~ ***is identified for each acquisition workforce career field*** in terms of the education, training, experience, and assignments necessary for career progression of civilians and members of the armed forces to the most senior acquisition positions. The Secretary shall make available published information on such career paths.

(b) Limitation on Preference for Military Personnel.—(1) The Secretary of Defense shall ensure that no requirement or preference for a member of the armed forces is used in the consideration of persons for acquisition positions, except as provided in the policy established under paragraph (2).

(2)(A) The Secretary shall establish a policy permitting a particular acquisition position to be specified as available only to members of the armed forces if a determination is made, under criteria specified in

the policy, that a member of the armed forces is required for that position by law, is essential for performance of the duties of the position, or is necessary for another compelling reason.

(B) Not later than December 15 of each year, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall submit to the Secretary a report that lists each acquisition position that is restricted to members of the armed forces under such policy and the recommendation of the Under Secretary as to whether such position should remain so restricted.

(c) Opportunities for Civilians To Qualify.—The Secretary of Defense shall ensure that civilian personnel are provided the opportunity to acquire the education, training, and experience necessary to qualify for senior acquisition positions.

(d) Best Qualified.—The Secretary of Defense shall ensure that the policies established under this chapter are designed to provide for the selection of the best qualified individual for a position, consistent with other applicable law.

[(e) Repealed.]

(f) Assignments Policy.—(1) The Secretary of Defense shall establish a policy on assigning military personnel to acquisition positions that provides for a balance between (A) the need for personnel to serve in career broadening positions, and (B) the need for requiring service in each such position for sufficient time to provide the stability necessary to effectively carry out the duties of the position and to allow for the establishment of responsibility and accountability for actions taken in the position.

(2) In implementing the policy established under paragraph (1), the Secretaries of the military departments shall provide, as appropriate, for longer lengths of assignments to acquisition positions than assignments to other positions.

(g) Performance Appraisals.—The Secretary of each military department, acting through the service acquisition executive for that department, shall provide an opportunity for review and inclusion of any comments on any appraisal of the performance of a person serving in an acquisition position by a person serving in an acquisition position in the same acquisition career field.

(h) Balanced Workforce Policy.—In the development of defense acquisition workforce policies under this chapter with respect to any civilian employees or applicants for employment, the Secretary of Defense or the Secretary of a military department (as applicable) shall, consistent with the merit system principles set out in paragraphs (1) and (2) of section 2301(b) of title 5, take into consideration the need to maintain a balanced workforce in which women and members of racial and ethnic minority groups are appropriately represented in Government service.

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§1722b. Special requirements for civilian employees in the acquisition field

(a) Requirement for Policy and Guidance Regarding Civilian Personnel in Acquisition.—The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish policies and issue guidance to ensure the proper development, assignment, and employment of civilian members of the acquisition workforce to achieve the objectives specified in subsection (b).

(b) Objectives.—Policies established and guidance issued pursuant to subsection (a) shall ensure, at a minimum, the following:

(1) A career path in the acquisition field that attracts the highest quality civilian personnel, from either within or outside the Federal Government.

(2) A deliberate workforce development strategy that increases attainment of key experiences that contribute to a highly qualified acquisition workforce.

(3) Sufficient opportunities for promotion and advancement in the acquisition field.

(4) A sufficient number of qualified, trained members eligible for and active in the acquisition field to ensure adequate capacity, capability, and effective succession for acquisition functions, including contingency contracting, of the Department of Defense.

(5) A deliberate workforce development strategy that ensures diversity in promotion, advancement, and experiential opportunities commensurate with the general workforce outlined in this section.

(c) Key Work Experiences.—In carrying out subsection (b)(2), the Secretary shall ensure that key work experiences, in the form of multidiscipline training, are developed for each acquisition workforce career field.

§1723. General education, training, and experience requirements

(a) Qualification Requirements.—(1) The Secretary of Defense shall establish education, training, and experience requirements for each acquisition position, based on the level of complexity of duties carried out in the position. In establishing such requirements, the Secretary shall ensure the availability and sufficiency of training in all areas of acquisition, including additional training courses with an emphasis on services contracting, market research strategies (including assessments of local contracting capabilities), long-term sustainment strategies, information technology, and rapid acquisition.

(2) In establishing such requirements for positions other than critical acquisition positions designated pursuant to section 1733 of this title, the Secretary may state the requirements by categories of positions.

(3) The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish requirements for continuing education and periodic renewal of an individual's certification. Any requirement for a certification renewal shall not require a renewal more often than once every five years.

(b) Career Path Requirements.—For each career path, the Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall establish requirements for the completion of course work and related on-the-job training and demonstration of qualifications in ~~***the critical acquisition-related***~~ duties and tasks of the career path. The Secretary of Defense, acting through the Under Secretary, shall also—

(1) encourage individuals in the acquisition workforce to maintain the currency of their acquisition knowledge and generally enhance their knowledge of related acquisition management disciplines through academic programs and other self-developmental activities; and

(2) develop key work experiences, including the creation of a program sponsored by the Department of Defense that facilitates the periodic interaction between individuals in the acquisition workforce and the end user in such end user's environment to enhance the knowledge base of such workforce, for individuals in the acquisition workforce so that the individuals may gain in-depth knowledge and experience in the acquisition process and become seasoned, well-qualified members of the acquisition workforce.

(c) Limitation on Credit for Training or Education.—Not more than one year of a period of time spent pursuing a program of academic training or education in acquisition may be counted toward fulfilling any requirement established under this chapter for a certain period of experience.

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§1725. Senior Military Acquisition Advisors

(a) Position.—

(1) In general.—The Secretary of Defense may establish in the ~~Defense Acquisition Corps~~ ***acquisition workforce*** a position to be known as "Senior Military Acquisition Advisor".

(2) Appointment.—A Senior Military Acquisition Advisor shall be appointed by the President, by and with the advice and consent of the Senate.

(3) Scope of position.—An officer who is appointed as a Senior Military Acquisition Advisor—

(A) shall serve as an advisor to, and provide senior level acquisition expertise to, the service acquisition executive of that officer's military department in accordance with this section; and

(B) shall be assigned as an adjunct professor at the Defense Acquisition University.

(b) Continuation on Active Duty.—An officer who is appointed as a Senior Military Acquisition Advisor may continue on active duty while serving in such position without regard to any mandatory retirement date that would otherwise be applicable to that officer by reason of years of service or age. An officer who is continued on active duty pursuant to this section is not eligible for consideration for selection for promotion.

(c) Retired Grade.—Upon retirement, an officer who is a Senior Military Acquisition Advisor may, in the discretion of the President, be retired in the grade of brigadier general or rear admiral (lower half) if—

(1) the officer has served as a Senior Military Acquisition Advisor for a period of not less than three years; and

(2) the officer's service as a Senior Military Acquisition Advisor has been distinguished.

(d) Selection and Tenure.—

(1) In general.—Selection of an officer for recommendation for appointment as a Senior Military Acquisition Advisor shall be made competitively, and shall be based upon demonstrated experience and expertise in acquisition.

(2) Officers eligible.—Officers shall be selected for recommendation for appointment as Senior Military Acquisition Advisors from among officers ~~of the Defense Acquisition Corps~~ ***in the acquisition workforce serving in critical acquisition positions*** who are serving in the grade of colonel or, in the case of the Navy, captain, and who have at least 12 years of acquisition experience. An officer selected for recommendation for appointment as a Senior Military Acquisition Advisor shall have at least 30 years of active commissioned service at the time of appointment.

(3) Term.—The appointment of an officer as a Senior Military Acquisition Advisor shall be for a term of not longer than five years.

(e) Limitation.—

(1) Limitation on number and distribution.—There may not be more than 15 Senior Military Acquisition Advisors at any time, of whom—

(A) not more than five may be officers of the Army;

(B) not more than five may be officers of the Navy and Marine Corps; and

(C) not more than five may be officers of the Air Force.

(2) Number in each military department.—Subject to paragraph (1), the number of Senior Military Acquisition Advisors for each military department shall be as required and identified by the service acquisition executive of such military department and approved by the Under Secretary of Defense for Acquisition, Technology, and Logistics.

(f) Advice to Service Acquisition Executive.—An officer who is a Senior Military Acquisition Advisor shall have as the officer's primary duty providing strategic, technical, and programmatic advice to the service acquisition executive of the officer's military department on matters pertaining to the Defense Acquisition System, including matters pertaining to procurement, research and development, advanced technology, test and evaluation, production, program management, systems engineering, and lifecycle logistics.

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SUBCHAPTER III—~~ACQUISITION CORPS~~ *CRITICAL ACQUISITION POSITIONS*

Sec.
1731. ~~Acquisition Corps: in general.~~ ***Critical acquisition positions.***
~~1732. Selection criteria and procedures.~~
~~1733. Critical acquisition positions.~~
1734. Career development.
1735. Education, training, and experience requirements for critical acquisition positions.
[1736. Repealed.]
1737. Definitions and general provisions.

~~§1731. Acquisition Corps: in general~~

~~(a) Acquisition Corps.—The Secretary of Defense shall ensure that an Acquisition Corps is established for the Department of Defense.~~

~~(b) Promotion Rate for Officers in Acquisition Corps.—The Secretary of Defense shall ensure that the qualifications of commissioned officers selected for the Acquisition Corps are such that those officers are expected, as a group, to be promoted at a rate not less than the rate for all line (or the equivalent) officers of the same armed force (both in the zone and below the zone) in the same grade.~~

~~§1732. Selection criteria and procedures~~

~~(a) Selection Criteria and Procedures.—Selection for membership in the Acquisition Corps shall be made in accordance with criteria and procedures established by the Secretary of Defense.~~

~~(b) Eligibility Criteria.—Except as provided in subsections (c) and (d), only persons who meet all of the following requirements may be considered for service in the Corps:~~

~~(1) The person must meet the educational requirements prescribed by the Secretary of Defense. Such requirements, at a minimum, shall include both of the following:~~

~~(A) A requirement that the person—~~

~~(i) has received a baccalaureate degree at an accredited educational institution authorized to grant baccalaureate degrees, or~~

~~(ii) possess significant potential for advancement to levels of greater responsibility and authority, based on demonstrated analytical and decisionmaking capabilities, job performance, and qualifying experience.~~

~~(B) A requirement that the person has completed—~~

~~(i) at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education from among the following disciplines: accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management; or~~

~~(ii) at least 24 semester credit hours (or the equivalent) from an accredited institution of higher education in the person's career field and 12 semester credit hours (or the equivalent) from such an institution from among the disciplines listed in clause (i) or equivalent training as prescribed by the Secretary to ensure proficiency in the disciplines listed in clause (i).~~

~~(2) The person must meet experience requirements prescribed by the Secretary of Defense. Such requirements shall, at a minimum, include a requirement for at least four years of~~

~~experience in an acquisition position in the Department of Defense or in a comparable position in industry or government.~~

~~(3) The person must meet such other requirements as the Secretary of Defense or the Secretary of the military department concerned prescribes by regulation.~~

~~(c) Exceptions.—(1) The requirements of subsections (b)(1)(A) and (b)(1)(B) shall not apply to any employee who, on October 1, 1991, has at least 10 years of experience in acquisition positions or in comparable positions in other government agencies or the private sector.~~

~~(2) The requirements of subsections (b)(1)(A) and (b)(1)(B) shall not apply to any employee who is serving in an acquisition position on October 1, 1991, and who does not have 10 years of experience as described in paragraph (1) if the employee passes an examination considered by the Secretary of Defense to demonstrate skills, knowledge, or abilities comparable to that of an individual who has completed at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education from among the following disciplines: accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management.~~

~~(d) Waiver.—(1) Except as provided in paragraph (2), the Secretary of Defense may waive any or all of the requirements of subsection (b) with respect to an employee if the Secretary determines that the employee possesses significant potential for advancement to levels of greater responsibility and authority, based on demonstrated analytical and decisionmaking capabilities, job performance, and qualifying experience. With respect to each waiver granted under this subsection, the Secretary shall set forth in a written document the rationale for the decision of the Secretary to waive such requirements.~~

~~(2) The Secretary may not waive the requirements of subsection (b)(1)(A)(ii).~~

~~(e) Mobility Statements.—(1) The Secretary of Defense is authorized to require civilians in the Acquisition Corps to sign mobility statements.~~

~~(2) The Secretary of Defense shall identify which categories of civilians in the Acquisition Corps, as a condition of serving in the Corps, shall be required to sign mobility statements. The Secretary shall make available published information on such identification of categories.~~

§~~1733~~ *1731*. Critical acquisition positions

~~(a) Requirement for Corps Member.—A critical acquisition position may be filled only by a member of the Acquisition Corps.~~

~~(b)~~ ***(a)*** Designation of Critical Acquisition Positions.—(1) The Secretary of Defense shall designate the acquisition positions in the Department of Defense that are critical acquisition positions. Such positions shall include the following:

(A) Any acquisition position which—

(i) in the case of employees, is required to be filled by an employee in a senior position in the National Security Personnel System, as determined in accordance with guidelines prescribed by the Secretary, or in the Senior Executive Service; or

(ii) in the case of members of the armed forces, is required to be filled by a commissioned officer of the Army, Navy, Air Force, or Marine Corps who is serving in the grade of lieutenant colonel, or, in the case of the Navy, commander, or a higher grade.

(B) Other selected acquisition positions not covered by subparagraph (A), including the following:

(i) Program executive officer.

(ii) Program manager of a major defense acquisition program (as defined in section 2430 of this title) or of a significant nonmajor defense acquisition program (as defined in section 1737(a)(3) of this title).

(iii) Deputy program manager of a major defense acquisition program.

(C) Any other acquisition position of significant responsibility in which the primary duties are supervisory or management duties.

(2) The Secretary shall periodically publish a list of the positions designated under this subsection.

(b) Promotion Rate for Officers* in *~~Acquisition Corps~~ the Acquisition Workforce.—The Secretary of Defense shall ensure that the qualifications of commissioned officers ~~selected for the Acquisition Corps~~ in the acquisition workforce are such that those officers are expected, as a group, to be promoted at a rate not less than the rate for all line (or the equivalent) officers of the same armed force (both in the zone and below the zone) in the same grade.

(c) Mobility Statements.—(1) The Secretary of Defense is authorized to require civilians ~~in the Acquisition Corps~~ in critical acquisition positions to sign mobility statements.

(2) The Secretary of Defense shall identify which categories of civilians ~~in the Acquisition Corps~~ in critical acquisition positions, as a condition of ~~serving in the Corps~~ employment, shall be required to sign mobility statements. The Secretary shall make available published information on such identification of categories.

§1734. Career development

(a) Three-Year Assignment Period.—(1) Except as provided under subsection (b) and paragraph (3), the Secretary of each military department, acting through the service acquisition executive for that department, shall provide that any person who is assigned to a critical acquisition position shall be assigned to the position for not fewer than three years. Except as provided in subsection (d), the Secretary concerned may not reassign a person from such an assignment before the end of the three-year period.

(2) A person may not be assigned to a critical acquisition position unless the person executes a written agreement to remain on active duty (in the case of a member of the armed forces) or to remain in Federal service (in the case of an employee) in that position for at least three years. The service obligation contained in such a written agreement shall remain in effect unless and until waived by the Secretary concerned under subsection (b).

(3) The assignment period requirement of the first sentence of paragraph (1) is waived for any individual serving as a deputy program manager if the individual is assigned to a critical acquisition position upon completion of the individual's assignment as a deputy program manager.

(b) Assignment Period for Program Managers.—(1) The Secretary of Defense shall prescribe in regulations—

(A) a requirement that a program manager and a deputy program manager (except as provided in paragraph (3)) of a major defense acquisition program be assigned to the position at least until completion of the major milestone that occurs closest in time to the date on which the person has served in the position for four years; and

(B) a requirement that, to the maximum extent practicable, a program manager who is the replacement for a reassigned program manager arrive at the assignment location before the reassigned program manager leaves.

Except as provided in subsection (d), the Secretary concerned may not reassign a program manager or deputy program manager from such an assignment until after such major milestone has occurred.

(2) A person may not be assigned to a critical acquisition position as a program manager or deputy program manager of a major defense acquisition program unless the person executes a written agreement to remain on active duty (in the case of a member of the armed forces) or to remain in Federal service (in the case of an employee) in that position at least until completion of the first major milestone that occurs closest in time to the date on which the person has served in the position for four years. The service obligation contained in such a written agreement shall remain in effect unless and until waived by the Secretary concerned under subsection (d).

(3) The assignment period requirement under subparagraph (A) of paragraph (1) is waived for any individual serving as a deputy program manager if the individual is assigned to a critical acquisition position upon completion of the individual's assignment as a deputy program manager.

(c) Major Milestone Regulations.—(1) The Secretary of Defense shall issue regulations defining what constitutes major milestones for purposes of this section. The service acquisition executive of each military department shall establish major milestones at the beginning of a major defense acquisition program consistent with such regulations and shall use such milestones to determine the assignment period for program managers and deputy program managers under subsection (b).

(2) The regulations shall require that major milestones be clearly definable and measurable events that mark the completion of a significant phase in a major defense acquisition program and that such milestones be the same as the milestones contained in the baseline description established for the program pursuant to section 2435(a) of this title. The Secretary shall require that the major milestones as defined in the regulations be included in the Selected Acquisition Report required for such program under section 2432 of this title.

(d) Waiver of Assignment Period.—(1) With respect to a person assigned to a critical acquisition position, the Secretary concerned may waive the prohibition on reassignment of that person (in subsection (a)(1) or (b)(1)) and the service obligation in an agreement executed by that person (under subsection (a)(2) or (b)(2)), but only in exceptional circumstances in which a waiver is necessary for reasons permitted in regulations prescribed by the Secretary of Defense.

(2) With respect to each waiver granted under this subsection, the service acquisition executive (or his delegate) shall set forth in a written document the rationale for the decision to grant the waiver.

(e) Rotation Policy.—(1) The Secretary of Defense shall establish a policy encouraging the rotation of members ~~of the Acquisition Corps~~ ***of the acquisition workforce*** serving in critical acquisition positions to new assignments after completion of five years of service in such positions, or, in the case of a program manager, after completion of a major program milestone, whichever is longer. Such rotation policy shall be designed to ensure opportunities for career broadening assignments and an infusion of new ideas into critical acquisition positions.

(2) The Secretary of Defense shall establish a procedure under which the assignment of each person assigned to a critical acquisition position shall be reviewed on a case-by-case basis for the purpose of determining whether the Government and such person would be better served by a reassignment to a different position. Such a review shall be carried out with respect to each such person not later than five years after that person is assigned to a critical position.

(f) Centralized Job Referral System.—The Secretary of Defense shall prescribe regulations providing for the use of centralized lists to ensure that persons are selected for critical positions without regard to geographic location of applicants for such positions.

(g) Exchange Program.—The Secretary of Defense shall establish, for purposes of broadening the experience of members ~~of the Acquisition Corps~~ ***of the acquisition workforce***, a test program in which members ~~of the Corps~~ ***of the acquisition workforce*** serving in a military department or Defense Agency are assigned or detailed to an acquisition position in another department or agency. Under the test program, the Secretary of Defense shall ensure that, to the maximum extent practicable, at least 5 percent of the members ~~of the Acquisition Corps~~ ***of the acquisition workforce in critical acquisition positions*** shall serve in such exchange assignments each year. The test program shall operate for not less than a period of three years.

(h) Responsibility for Assignments.—The Secretary of each military department, acting through the service acquisition executive for that department, is responsible for making assignments of civilian and military personnel of that military department who are members ~~of the Acquisition Corps~~ ***of the acquisition workforce*** to critical acquisition positions.

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§1737. Definitions and general provisions

(a) Definitions.—In this subchapter:

(1) The term "program manager" means, with respect to a defense acquisition program, the member ~~of the Acquisition Corps~~ ***of the acquisition workforce*** responsible for managing the program, regardless of the title given the member.

(2) The term "deputy program manager" means the person who has authority to act on behalf of the program manager in the absence of the program manager.

(3) The term "significant nonmajor defense acquisition program" means a Department of Defense acquisition program that is not a major defense acquisition program (as defined in section 2430 of this title) and that is estimated by the Secretary of Defense to require an eventual total expenditure for research, development, test, and evaluation of more than the dollar threshold set forth in section 2302(5)(A) of this title for such purposes for a major system or an eventual total expenditure for procurement of more than the dollar threshold set forth in section 2302(5)(A) of this title for such purpose for a major system.

(4) The term "program executive officer" has the meaning given such term in regulations prescribed by the Secretary of Defense.

(5) The term "senior contracting official" means a director of contracting, or a principal deputy to a director of contracting, serving in the office of the Secretary of a military department, the headquarters of a military department, the head of a Defense Agency, a subordinate command headquarters, or in a major systems or logistics contracting activity in the Department of Defense.

(b) Limitation.—Any civilian or military member ~~of the Corps~~ ***of the acquisition workforce*** who does not meet the education, training, and experience requirements for a critical acquisition position established under this subchapter may not carry out the duties or exercise the authorities of that position, except for a period not to exceed six months, unless a waiver of the requirements is granted under subsection (c).

(c) Waiver.—The Secretary of each military department (acting through the service acquisition executive for that department) or the Secretary of Defense (acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics) for Defense Agencies and other components of the Department of Defense may waive, on a case-by-case basis, the requirements established under this subchapter with respect to the assignment of an individual to a particular critical acquisition position. Such a waiver may be granted only if unusual circumstances justify the waiver or if the Secretary concerned (or official to whom the waiver authority is delegated) determines that the individual's qualifications obviate the need for meeting the education, training, and experience requirements established under this subchapter.

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§1742. Internship, cooperative education, and scholarship programs

(a) Programs.—The Secretary of Defense shall conduct the following education and training programs:

(1) An intern program for purposes of providing highly qualified and talented individuals an opportunity for accelerated promotions, career broadening assignments, and specified training to prepare them for entry into ~~the Acquisition Corps~~ ***acquisition positions in the Department of Defense***.

(2) A cooperative education credit program under which the Secretary arranges, through cooperative arrangements entered into with one or more accredited institutions of higher

education, for such institutions to grant undergraduate credit for work performed by students who are employed by the Department of Defense in acquisition positions.

(3) A scholarship program for the purpose of qualifying personnel for acquisition positions in the Department of Defense.

(b) Scholarship Program Requirements.—Each recipient of a scholarship under a program conducted under subsection (a)(3) shall be required to sign a written agreement that sets forth the terms and conditions of the scholarship. The agreement shall be in a form prescribed by the Secretary and shall include terms and conditions, including terms and conditions addressing reimbursement in the event that a recipient fails to fulfill the requirements of the agreement, that are comparable to those set forth as a condition for providing advanced education assistance under section 2005. The obligation to reimburse the United States under an agreement under this subsection is, for all purposes, a debt owing the United States.

SUBCHAPTER V—GENERAL MANAGEMENT PROVISIONS

Sec.
1761. Management information system.
1762. Demonstration project relating to certain acquisition personnel management policies and procedures.
[1763. Repealed.]
1764. Authority to establish different minimum requirements.
1765. Competency development.

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§1765. Competency development

(a) IN GENERAL.—For each acquisition workforce career field, the Secretary of Defense shall establish, for the civilian personnel in that career field, defined proficiency standards and technical and nontechnical competencies which shall be used in personnel qualification assessments.

(b) NEGOTIATIONS.—Any action taken by the Secretary under this section, or to implement this section, shall not be subject to the requirements of chapter 71 of title 5.

(c) REGULATIONS.—Any rules or regulations prescribed pursuant to this section shall be deemed a Government-wide rule or regulation under section 7117(a)(1) of title 5 and shall not be deemed to be an agency rule or regulation under section 7117(a)(2) of such title.

RECOMMENDED REPORT LANGUAGE

SEC. ___. PUBLIC-PRIVATE EXCHANGE PROGRAM FOR ACQUISITION WORKFORCE.

This section would create a two-way exchange program between the Defense Department acquisition workforce and private sector companies.

The committee recognizes that exchange programs between the public sector and the private sector could benefit the federal government and private sector companies alike. The committee is aware that the Defense Department's previous efforts to implement such exchange programs were undermined by structural disincentives for key stakeholders. The committee notes that the new statute would eliminate these disincentives. In particular, the committee notes that the new statute would preclude the use of a private sector employee's participation in the exchange program, in and of itself, as the basis of an organizational conflict-of-interest complaint.

The committee observes that the new statute should increase exchange program participation among public sector employees. The committee recognizes that the Defense Department's willingness to support those employees who participate in the exchange program and promote the further development of their careers would be essential to the success of the program.

This section would make conforming amendments to 10 U.S.C. 1705 to permit the use of the Defense Acquisition Workforce Development Fund for the exchange program, and to 10 U.S.C. 1599g to exclude members of the acquisition workforce from that section.

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SEC. ___. PUBLIC-PRIVATE EXCHANGE PROGRAM FOR ACQUISITION WORKFORCE.

(a) IN GENERAL.—Subchapter IV of Chapter 87 of title 10, United States Code, is amended by adding at the end the following new section:

"§1749. Public-private exchange program for the acquisition workforce

"(a) ASSIGNMENT AUTHORITY.—(1) Under regulations prescribed by the Secretary of Defense, the Secretary may, with the agreement of a private-sector organization, arrange for the temporary assignment under this section of—

"(A) a member of the acquisition workforce to such private-sector organization; or

"(B) an employee of such private-sector organization to a Department of Defense organization.

Such an assignment may only be made with the consent of the member of the acquisition workforce or the employee concerned.

"(2) Members of the acquisition workforce are eligible for an assignment under this section as follows:

"(A) Civilians in any of grades GS-12 through GS-15 under the General Schedule or, for employees in the demonstration project under section 1762 of this title, the equivalent.

"(B) Members of the armed forces serving in any of pay grades O-3 through O-6.

"(3) A private-sector organization shall not be considered to have an organizational conflict of interest merely by reason of—

"(A) the assignment of an employee of that organization to the Department of Defense under this section; or

"(B) the assignment of a member of the acquisition workforce to that organization under this section.

"(b) AGREEMENTS.—(1) The Secretary of Defense shall provide for a written agreement among the Department of Defense, the private-sector organization, and the member of the acquisition workforce or the employee concerned regarding the terms and conditions of an assignment under this section. Each such agreement shall include the following:

"(A) In the case of an agreement for the assignment of a member of the acquisition workforce, a requirement that the member of the acquisition workforce, upon completion of the assignment, will—

"(i) if a member of the armed forces, serve in the armed forces for a period equal to twice the length of the assignment (in addition to any other period of obligated service); or

"(ii) if a civilian, serve in the Department of Defense, or elsewhere in the civil service if approved by the Secretary, for a period equal to twice the length of the assignment.

"(B) A provision that if the member of the acquisition workforce or the employee of the private-sector organization (as the case may be) fails to carry out the agreement, such member or employee shall be liable to the United States for payment of all expenses of the assignment, unless that failure was for good and sufficient reason, as determined by the Secretary of Defense.

"(C) In the case of an agreement for the assignment of a member of the acquisition workforce, language ensuring that such member of the acquisition workforce does not improperly use pre-decisional or draft deliberative information that such member may be privy to or aware of related to Department programing, budgeting, resourcing, acquisition, or procurement for the benefit or advantage of the private-sector organization.

"(2) An amount for which an individual is liable under paragraph (1)(B) shall be treated as a debt due the United States.

"(3) The Secretary may waive, in whole or in part, collection of a debt described in paragraph (2) based on a determination that the collection would be against equity and good conscience and not in the best interests of the United States, after taking into account any indication of fraud, misrepresentation, fault, or lack of good faith on the part of the individual who is liable for the debt.

"(c) TERMINATION.—An assignment under this section may, at any time and for any reason, be terminated by the Department of Defense or the private-sector organization concerned.

"(d) DURATION.—(1) Except as provided in paragraph (2), an assignment under this section shall be for a period of not more than two years, renewable up to a total of four years.

"(2) An assignment under this section may be for a period in excess of two years, but not more than four years, if the Secretary determines that such assignment is necessary to meet critical mission or program requirements.

"(3) A member of the acquisition workforce may not be assigned under this section for more than a total of four years inclusive of all such assignments.

"(e) STATUS OF ACQUISITION WORKFORCE MEMBERS ASSIGNED TO PRIVATE-SECTOR ORGANIZATIONS.—(1) A member of the acquisition workforce who is assigned to a private-sector organization under this section shall be considered, during the period of assignment, to be on detail to a regular duty or work assignment in the Department for all purposes. In the case of a civilian member of the acquisition workforce, the written agreement established under subsection (b)(1)—

"(A) shall address the specific terms and conditions related to the employee's continued status as a Federal employee; and

"(B) in the case of an assignment of nine months or longer, shall provide that, if the employee successfully completes the assignment (as determined by the Secretary), the employee shall be eligible for consideration for placement in a new position under programs of the Department of Defense providing priority placement to certain employees.

"(2) In establishing an assignment of a member of the acquisition workforce of the Department of Defense to a private-sector organization, the Secretary of Defense–

"(A) may, in the case of a civilian member of the acquisition workforce, provide for the performance, during the member's absence, of the normal duties and functions of that member by making a temporary or term appointment under general civil service authorities for such appointments

"(B) shall ensure that the normal duties and functions of the acquisition workforce member can be reasonably performed by other personnel of the Department of Defense without the transfer or reassignment of other personnel of the Department of Defense, including members of the armed forces;

"(C) shall ensure that the normal duties and functions of the acquisition workforce member are not, as a result of and during the course of such temporary assignment, performed or augmented by contractor personnel in violation of the provisions of section 2461 of this title; and

"(D) shall certify that the temporary assignment of the acquisition workforce member will not have an adverse or negative impact on mission attainment, warfighter support, or organizational capabilities associated with the assignment.

"(f) TERMS AND CONDITIONS FOR PRIVATE-SECTOR EMPLOYEES.—An employee of a private-sector organization who is assigned to a Department of Defense organization under this section—

"(1) shall continue to receive pay and benefits from the private-sector organization from which such employee is assigned and shall not receive pay or benefits from the Department of Defense, except as provided in paragraph (2);

"(2) is deemed to be an employee of the Department of Defense for the purposes of—

"(A) chapters 73 and 81 of title 5;

"(B) sections 201, 203, 205, 207, 208, 209, 603, 606, 607, 643, 654, 1905, and 1913 of title 18;

"(C) sections 1343, 1344, and 1349(b) of title 31;

"(D) the Federal Tort Claims Act and any other Federal tort liability statute;

"(E) the Ethics in Government Act of 1978; and

"(F) chapter 21 of title 41;

"(3) shall not have access to any trade secrets or to any other nonpublic information which is of commercial value to the private-sector organization from which such employee is assigned;

"(4) may perform work that is considered inherently governmental in nature only when requested in writing by the Secretary of Defense; and

"(5) may not be used to circumvent the provision of section 2461 of this title nor to circumvent any limitation or restriction on the size of the Department's workforce.

"(g) PROHIBITION AGAINST CHARGING CERTAIN COSTS TO THE FEDERAL GOVERNMENT.—A private-sector organization may not charge the Department or any other agency of the Federal Government, as direct or indirect costs under a Federal contract, the costs of pay or benefits paid by the organization to an employee assigned to a Department organization under this section for the period of the assignment.

"(h) CONSIDERATION OF TRAINING NEEDS FOR MEMBERS OF THE ACQUISITION WORKFORCE.—In carrying out this section, the Secretary of Defense shall take into consideration the question of how assignments under this section might best be used to help meet the needs of the Department of Defense with respect to the training of members of the acquisition workforce.

"(i) FUNDING; USE OF DEFENSE ACQUISITION WORKFORCE DEVELOPMENT FUND.—Funds for the expenses for the program under this section shall be provided from amounts in the Department of Defense Acquisition Workforce Development Fund. For such purpose, expenses of the program include—

"(1) the base salary of a civilian member of the acquisition workforce assigned to a private-sector organization under this section, during the period of that assignment (and notwithstanding section 1705(e)(5) of this title);

"(2) any expenses relating to assignment under this section of a member of the acquisition workforce away from the member's regular duty station, including expenses for travel, per diem, and lodging; and

"(3) expenses for the administration of the program.".

(2) CLERICAL AMENDMENT.—The table of sections at the beginning of such subchapter is amended by adding at the end the following new item:

"1749. Public-private exchange program for acquisition workforce.".

(b) USE OF DEFENSE ACQUISITION WORKFORCE DEVELOPMENT FUND.—Section 1705(e)(1) of such title is amended by adding at the end the following new subparagraph:

"(C) Amounts in the Fund shall be used to pay the expenses of the public-private exchange program for the acquisition workforce under section 1749 of this title.".

(c) ACQUISITION WORKFORCE EMPLOYEES EXCLUDED FROM SECTION 1599G PROGRAM.—

(1) IN GENERAL.—Section **1599g** of such title is **amended** by adding at the end the following new subsection:

"(i) ACQUISITION WORKFORCE EMPLOYEES.—An employee of the Department of Defense who is eligible for the public-private exchange program for the acquisition workforce under section 1749 of this title is not eligible for an assignment under this section.".

(2) APPLICABILITY.—Subsection (i) of section 1599g of title 10, United States Code, as added by paragraph (1), shall not apply to an employee of the Department of Defense who entered into an agreement under that section before the date of the enactment of this Act.

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