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EARNED VALUE MANAGEMENT SERIES

The Evolution of Earned Value Management

PARCA— Acquisition Reform that Works

Proactively Tailored
Acquisition Models
The “Google Maps” for
Acquisition

Supply Chain
Risk—What Is It?

A Better Way to
Write Contracts

An Argument for
Process-Based Audits



CONTENTS

2

6

10

EARNED VALUE MANAGEMENT SERIES



The Evolution of Earned Value Management

Wayne F. Abba

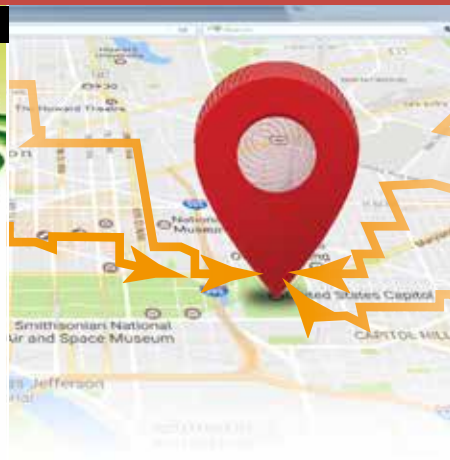
The EVM concept grew from a need to better manage increasingly complex defense programs, such as ballistic missiles. The genius of EVM, and a primary reason for its longevity, is its lack of prescriptive requirements.



PARCA—Acquisition Reform That Works

Daniel L. Lynch

The Performance Assessment and Root Cause Analyses (PARCA) Directorate in the Office of the Assistant Secretary of Defense for Acquisition has displayed a longed-for collaborative, innovative, and pioneering acumen.



Proactively Tailored Acquisition Models

The “Google Maps” for Acquisition
Su Chang and Pete Modigliani

Tailoring encourages a program to modify the acquisition process, program documentation, acquisition phases, and decision levels to most effectively address program needs. Tailoring is intended to give the acquisition workforce flexibility and autonomy.

15

20

24



Supply Chain Risk—What Is It?

James Davis and John Sullivan

A balance is needed between inventory on hand and resupply through the DoD supply chain. It is critical in locating the greatest threats to the supply chain and then developing the best way to mitigate or manage that risk.



A Better Way to Write Contracts

LT Stephen C. Hall, USN

Industry's share of administrative burden can be increased if the DoD requires the contractor to use its own resources to write the physical contract. Having the DoD write the contract does not add value to the contracting process; industry may institute a more efficient process.

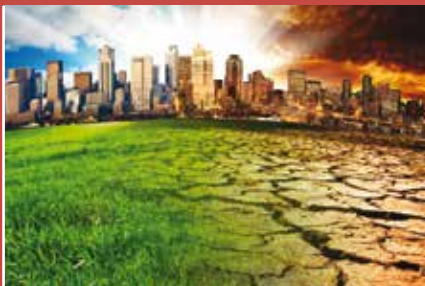


An Argument for Process-Based Audits

*Christopher Kluse, Ph.D.
and Mark S. Phillips, Ph.D.*

The cornerstone of Government Contract Quality Assurance is the ability to verify that a product or service conforms to the terms of a contract. Verifying that historically has been a challenging task.

27



Management Consulting: Great Stuff—But Beware of Pitfalls

Brian Schultz

DoD acquisition program offices often rely on specialized management consulting services. There are pitfalls as well as benefits in doing so.

31

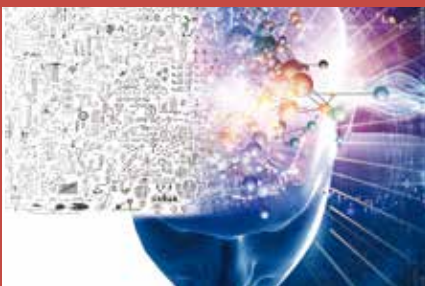


Tail Spend Management: Shaping the Future of Acquisition Reform

Jamaya S. "Rocky" Smith

Defense experts worry about increased spending on contracted services. One approach could focus on items below the \$10 million "core spending" threshold.

34



Special Ops Forces AT&L Gets FITT

Susan Griffin

The Special Operations Forces Acquisition, Technology and Logistics Training and Leader Development Team—known as the Pathfinders—uses a closed-loop process to assess proficiency, plan training, prepare trainers, execute classes and gather feedback to restart the loop.

38



Sustaining Afghan Air Power: Make, Buy or Both?

Lt Col Matthew A. Douglas, USAF, Ph.D. and Lt Col William C. Kossick, USAF

The Afghan Air Force has no previous sustainment experience on aircraft received from the United States. Therefore, Afghan maintenance and logistics capabilities on these platforms require a high level of contractor logistics support.

ALSO

14 MDAP/MAIS Program Manager Changes

44 David Packard Excellence in Acquisition Award Should Cost and Innovation Award

47 2016 Defense Acquisition Workforce Awards Defense Acquisition Workforce Individual Achievement Award Defense Acquisition Workforce Development Awards Chairman's Award



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The Evolution of Earned Value Management

Wayne F. Abba

Second in an ongoing series of articles

The technique known generically as Earned Value Management (EVM) is 50 years old this year. Let that sink in for a moment. How many other management techniques remain not only relevant but essentially unchanged after a half-century? EVM originated in Department of Defense (DoD) policy as Cost/Schedule Control Systems Criteria (C/SCSC or CS²) in 1967 and is at the core of the emerging concept known as Integrated Program Performance Management (IPPM).

EVM History

The EVM concept grew from a need to better manage increasingly complex defense programs, such as ballistic missiles, that were conceived in the 1960s. It overcame deficiencies in the Program Evaluation and Review Technique (PERT-PERT COST with the addition of a cost component). The genius of EVM, and a primary reason for its

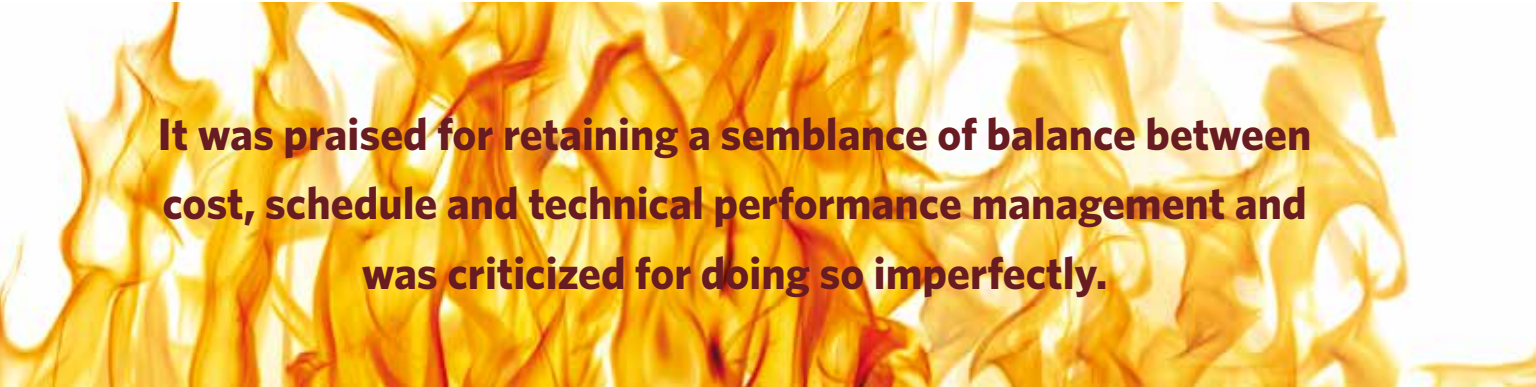
Abba, proprietor of Abba Consulting in Falls Church, Virginia, and president of the College of Performance Management in Reston, Virginia, formerly worked on acquisitions in the Office of the Secretary of Defense.



longevity, is its absence of prescriptive requirements. The EVM pioneers, including contractor and later Air Force executive A. Ernest “Ernie” Fitzgerald and Air Force Lt. Col. Hans “Whitey” Driessnack (who would retire as a lieutenant general) captured industry’s best management practices and issued them in defense policy not as “how to” requirements but as 35 criteria for industrial management systems. To this day, industry has not identified significant changes in those criteria.

The criteria specified, for example, that schedules must be integrated horizontally and vertically and that schedule accomplishment must be related to technical achievement—but

balance between cost, schedule and technical performance management and was criticized for doing so imperfectly. Contract performance may be likened to a stool supported by those three legs. Knock out any one leg—what happens? Changing the technical performance leg changed the dynamic significantly, and EVM was not designed to fill the gap. That it managed to do so—not perfectly, but to some degree—is a tribute to its Pentagon leaders and to the Defense Acquisition University (DAU). DAU’s courses at all management levels, from EVM practitioner to executive, have consistently incorporated EVM as a core discipline integrating cost, schedule and technical performance management and measurement.



It was praised for retaining a semblance of balance between cost, schedule and technical performance management and was criticized for doing so imperfectly.

the choice of scheduling systems was, of course, a contractor’s decision. This is an important point. Government contracts with industry because industry has superior knowledge of how to define, schedule and manage the work on any given contract. When government intrudes on those prerogatives, conflict ensues—often not to the government’s advantage.

The criteria were codified as DoD policy in 1967 and have stood the test of time. They remain virtually unchanged today as 32 guidelines that have been adopted by governments and industries around the world. But nothing lasts forever—like other significant policies, EVM has a bit of a “checkered history.” The time has come to revisit how we got here and to examine where we’re going.

The core principle of EVM was “integration”—of contractor cost, schedule and technical performance measurement. In the 1960s, each was governed by its own defense instruction or military standard. That has changed over the years. Especially noteworthy is the DoD’s changing philosophy of systems engineering, which in the 1960s was governed by Military Standard (MIL-STD)-499. Clinton-Gore acquisition reforms canceled all military standards and relegated systems engineering responsibility to defense contractors. Readers may recall the “total systems responsibility” philosophy, one of DoD’s more noteworthy arguably failed experiments.

During this time, EVM (which, thanks to extraordinary government-industry cooperation, not only survived but prospered during the Clinton-Gore reform era) was alternately praised and criticized. It was praised for retaining a semblance of

DAU graduates have managed the successful development and delivery of innumerable defense programs that are among the most technologically advanced and complex systems in the world.

The late Gary Christle, then the author’s boss and the lead EVM executive in the Office of the Secretary of Defense, kept EVM from being scrapped during the Clinton-Gore acquisition reform era. By acknowledging that EVM’s implementation had not met expectations and making it a key element of acquisition reform, Christle turned (as one of his contemporaries said) “a negative into a positive.” Unfortunately, government policy too often depends on personalities, and EVM lost significant momentum when Christle left OSD. His successor did not build on the gains, leading to a lost decade of management evolution.

The loss was profound. Christle had built extraordinary relationships with industry; such relationships are difficult to establish and are extremely fragile. The critical interface is at the operational level, represented today by the National Defense Industrial Association’s (NDIA) Integrated Program Management Division (IPMD) and the government organizations that interface with IPMD, especially the Office of Performance Assessments and Root Cause Analyses (PARCA) in the Office of the Assistant Secretary of Defense for Acquisition and the Defense Contract Management Agency (DCMA).

As described above, EVM was conceived as the integrating discipline for cost, schedule and technical performance measurement and management and the basis for objective status

reporting. Sometimes it met that expectation well—as with the Navy’s F/A-18 E/F Super Hornet Program. But at other times it did not, as in the case of the Navy’s A-12 Avenger II Program. Why not? Simply put, the A-12 development contract’s performance objectives were not achievable within contractual cost and schedule requirements, leading to a termination for default (and perhaps there was an incentive for the contractor to propose aggressively, given the promise of a multibillion-dollar follow-on production program).

For whatever reason, the A-12 contractors and the customer did not rely on the development contract’s EVM reports. There can be little doubt that, given an informed dialogue based on those reports, the status of the program could have been widely understood sooner, and better decisions could have been made. Instead, litigation dragged on through several trials over more than two decades—an expensive, time-consuming and ultimately unsatisfactory ordeal (I testified as an expert witness in the fifth trial).

The F/A-18E/F was the Phoenix that arose from the ashes of the A-12. Embracing the lessons learned on the A-12 along with the new concepts of Integrated Product Teams (IPTs), leadership in both government and industry delivered one of the most noteworthy successes in major systems development in many years.

The success of the Super Hornet program was not consistently repeated on subsequent programs. Why? One factor in

And there’s the rub. What is the need? As originally conceived, EVM was meant to provide timely, reliable management data reflecting performance on complex projects. In other words, a “good enough” snapshot of a moving train to inform management decisions. But as time passed, that objective increasingly was supplanted by a demand for more “accurate, timely” data, with emphasis on contractor compliance enforced by punitive contractual provisions. EVM’s original purpose—a timely, reliable management information system—is compromised to the extent it is redefined as an audit-oriented oversight system with punitive consequences for noncompliance.

Industry expertise in using EVM to manage is invaluable in helping the DoD understand how to write contracts that hold contractors responsible and accountable with minimal oversight. Good contract requirements that match management and reporting with appropriate contract type and effective incentives should be addressed before the contract is written. And when government program and project managers use the contractors’ EVM reports as a basis for data-driven management, data quality has a way of taking care of itself.

IPPM

In addition to collecting data and managing it in a constructive way, it is increasingly important that EVM be integrated more effectively, not only within projects and contracts but as part of larger program management systems, thereby including and contributing to knowledge and data of the larger



The success of the Super Hornet program was not consistently repeated on subsequent programs.

the Super Hornet’s success was a combination of teamwork and enlightened EVM implementation—a conscious effort to share information openly between supplier and customer, supported by an effective IPTs structure. Not all programs embrace these tenets.

EVM Implementation Issues

Let’s pause to consider the role of program and project management in defense acquisition. In my experience, spanning some five decades, answers to the question “Who owns program management data?” swing between extremes, with industry insisting that the customer has no right to detailed internal data and government insisting that the customer has rights to any and all data. EVM sits in the middle—the technique that provides the data needed by both parties for their respective needs.

system. The College of Performance Management (CPM), a not-for-profit professional association that I lead, has built a system that redefines EVM as the core discipline of IPPM, emphasizing and expanding EVM’s role in management systems integration. Nothing substantive has changed in EVM—what, then, is IPPM? In short, IPPM seeks to acknowledge the half-century legacy of EVM by building on its founding principles and its emphasis on schedule as the core integrating discipline, and by enhancing both technical performance and benefits realization.

IPPM adds emphasis to address emerging priorities of Technical/Benefits Management (TBM) practices. These systems engineering principles build on the advantages of EVM to ensure that measurable results toward business or mission goals are achieved. The new benefits realization focus of IPPM

prioritizes measuring and managing for results that meet the business or mission needs.

IPPM also adds emphasis in the area of Schedule/Resource Management (SRM) practices necessary to accommodate more dynamic approaches to schedule planning and control that have emerged and been proven throughout the EVM experience. Methods such as Manufacturing Resource Planning (MRP), MRPII, Enterprise Resource Planning (ERP) and Agile methodologies can and should fit into the framework of integrated program master schedules. The SRM aspects within IPPM demonstrate that these dynamic planning and tracking methods complement and enhance the integrated program management environment.

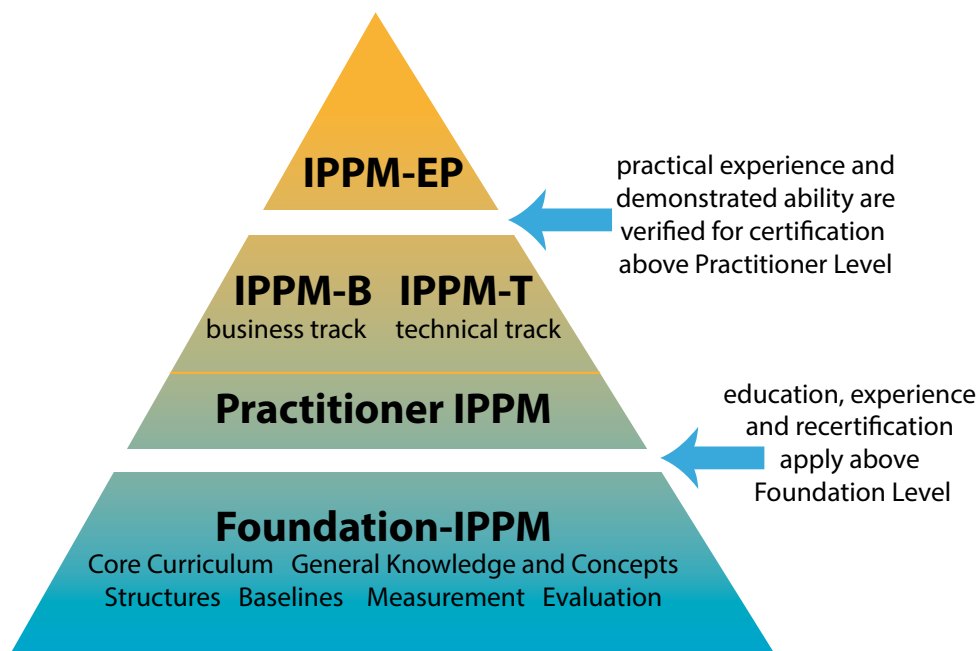
Integrated program management, and IPPM in particular, covers a broad range of management specialties. At present there is little in the way of formal education or professional credentials addressing the subject as an integrated set of disciplines. However, there are several recognized and emerging professional education and certification programs. The IPPM Enterprise Professional Certification is one new career development program emerging in the integrated program management field.

The IPPM-EP is the highest level of professional certification capping three levels of expertise—Foundational, Practitioner and Enterprise Professional. The pyramid illustration (Figure 1) gives a broad overview of the program and how practical experience and career accomplishment build upon a knowledge base comprising the EVM, SRM and TBM disciplines referred to above.

The IPPM foundational level is open to anyone seeking to start a career involving integrated program management. The Foundation Certification is designed to show that those who hold the credential have been tested for and have demonstrated the general knowledge and basic concepts supporting the core principles of IPPM.

The intermediate (Practitioner) level builds on the foundation by requiring mastery of analytical principles and the abilities to apply basic principles to practical settings. Applicants for the IPPM Practitioner choose either program “business management” or a “technical management” certification path to match their situation. In all cases, gaining the IPPM-EP level

Figure 1. IPPM–Enterprise Professional



will require mastering the integrated set of disciplines, practical experience and proven accomplishment.

The Path Forward

After 50 years, EVM is achieving the vision of its founders in becoming an industrial management technique informed by industry’s best management practices. It is evolving from its U.S. defense origins to a widely accepted practice, with new standards for EVM and Work Breakdown Structure (WBS) under development by the International Organization for Standardization (ISO). CPM has a seat at that table and will strive to ensure that the ultimate ISO standards are consistent with the essential principles embodied in DoD regulations and other standards.

The previous issue of *Defense AT&L* magazine included an article on the cost vs. benefit of EVM practices. This and other issues will include articles addressing respective government and industry views of EVM. There are many potential topics—some are perennial and others rise from management evolution. Among the former are the organization and implementation of EVM guidelines in contemporary management systems, the right levels of management data needed for supplier and customer needs, and the dollar threshold for mandatory implementation of EVM. Examples of the latter include the integration of EVM with Agile development, the scalable application of EVM, EVM as a business rule, and the role of the evolving ISO standards for EVM and WBS. Readers are invited to engage in the dialogue and contribute their experiences and suggestions to help define the future of defense cost and schedule contract performance management. &

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Acquisition Reform That Works

Daniel L. Lynch

Third in an ongoing series of articles

Originating from the enactment of the Weapon Systems Acquisition Reform Act of 2009, the Performance Assessment and Root Cause Analyses (PARCA) Directorate in the Office of the Assistant Secretary of Defense for Acquisition has displayed collaborative, innovative, and pioneering acumen. That acumen was longed for by the National Defense Industrial Association's Integrated Program Management Division (NDIA IPMD) to help it create and maintain a true partnership with the Department of Defense (DoD).

Spearheaded and inspired by its initial and continuing director, Gary Bliss, PARCA has instituted a forum and process that helps industry resolve Earned Value Management System (EVMS) issues both in the proposal and in the execution phase of the resulting contract. They documented and communicated the waiver and deviation process that helps both the buying commands and the prime contractors ensure that the proper EVMS require-

Lynch is manager of Earned Value Management for Raytheon Missile Systems, a position held since 2008, and is chairman of the National Defense Industrial Association-Integrated Program Management Division.

ments (Defense Federal Acquisition Regulation Supplement, system and reporting) are placed within the solicitation. Once under contract, PARCA has a new issue resolution (IR) process that has helped contractors interpret the expectations of the EIA-748 EVMS standard guidelines and EVM subsystems questions. Both of these processes reduce unrealistic or over prescriptive EVM contractual requirements, thereby increasing taxpayer savings while not inhibiting good program management capabilities and processes.

PARCA also has issued a number of EVMS implementation letters to the buying commands that address policy details not covered elsewhere regarding such topics as:

- Not harvesting underruns (Aug. 24, 2015)
- Purpose and use of schedule margins (Dec. 17, 2014)
- Eliminating Requirements Study—guidance for Integrated Baseline Reviews (July 30, 2015)
- EVM on Fixed Price Incentive (Firm Targets) contracts (September 2015)
- Work Breakdown Structure level of detail required on contract (June 18, 2015)

All of these policy letters referenced above improved communication and expectations between the buying commands and industry.

PARCA took the lead in gathering data from industry regarding the Better Buying Power (BBP) 3.0 initiative/study titled “Eliminating Requirements Imposed on Industry where Costs Exceed Benefits.” It did a really good job of collecting comments and recommendations from industry, then performed a thorough analysis and summarized the results along with cost effective recommendations. PARCA presented the results within DoD and to industry associations. Several benefits have already been incorporated including raising the Defense Contract Management Agency (DCMA) contract surveillance thresholds to \$100 million via an EVMS Class Deviation memorandum on Sept. 28, 2015. The BBP 3.0 study results are the foundation that will be expanded upon via the congressionally directed Section 896 of the Fiscal Year 2016 National Defense Authorization Act—“Survey on the Costs of Regulatory Compliance” for cost reimbursable type contracts.

In my four decades of experience in defense industry, such real results were achieved only once—during the 1990s. (See

Wayne Abba’s article “The Evolution of Earned Value Management” in this issue of *Defense AT&L*.) Bliss has clearly instilled within his team the standards of transparency and honesty to ensure that all stakeholders maintain clear sense mutual objectives of keeping the warfighter’s needs at the forefront while remaining vigilant about controlling taxpayer costs. This has opened the door to streamlined, intelligent and effective integrated program performance requirements.

Since its inception, PARCA has been an ongoing partner with the NDIA IPMD. The PARCA leadership team has attended every IPMD general membership quarterly meeting and has engaged in roles spanning from keynote addresses to active

PARCA has a new issue resolution (IR) process that has helped contractors interpret the expectations of the EIA-748 EVMS standard guidelines and EVM subsystems questions.

contributors in working groups to panel members. Furthermore, PARCA leaders have been the impetus to facilitate an extra half-day on the agenda for an open forum with both industry stakeholders and key senior representatives from the DCMA for discussions that successfully merge EVMS policy with implementation and compliance.

On June 1, 2016, IPMD’s education partner, the College of Performance Management (CPM) had the distinct privilege of hearing a keynote address by John McGregor, Deputy Director for Earned Value Management in PARCA’s organization, at the annual EVM World workshop in Naples, Florida. His subject, “PARCA: EVMSIG—Today and Tomorrow,” set the stage for the workshop and was warmly received by the 325 attendees, the vast majority of whom represented the defense industry. McGregor and his staff also led several practice symposia, which attracted large audiences—as many as a quarter of the workshop attendees—who participated in lively discussions that were a testament to the cooperative atmosphere he continuously encourages.

Having attended those sessions, I was pleased to see that participants represented not only the large firms one sees at NDIA meetings, but also smaller companies and consulting firms—effectively extending PARCA’s message widely. I facilitated an open forum at that meeting during an NDIA “clearinghouse” discussion addressing management and oversight issues experienced on defense contracts. McGregor and his staff openly and candidly engaged with participants in that forum. He also delivered a timely and informative keynote address that carried over in his invaluable contributions to the practice symposia. As has been their spirit and practice all

Through PARCA's efforts, Earned Value reporting has been streamlined by consolidating several management information reports into the Integrated Program Management Report and by reducing the levels of cost and schedule reporting.

along, PARCA personnel provide a professional, neutral face to industry to help mutually advance integrated program performance management. Both sides benefit from and are grateful for the support and thought-provoking debate they inspire.

Other beneficial processes that PARCA has put into place include:

Communication and Outreach. PARCA has set the precedent of reaching out to industry in multiple ways. They have a very informative website. They regularly reach out to industry by supporting industry forums.

Policy and guidance. In discussing the value that PARCA has brought to acquisition reform, it is important to note that PARCA provides the policy side of EVMS so that the policy and implementation functions are separated. This eliminates any potential for a single organization to focus on simplifying administration at the cost of EVMS utility in supporting both government and industry program management.

PARCA maintains the EVMS policy in a fashion that allows industry to offer inputs and recommendations prior to issuing formal documents. This includes the Integrated Program Management Report (IPMR) Data Item Description (DID) (DI-MGMT-81861A, Sept. 16, 2015), the *IPMR Implementation Guide*, the *Agile-EVM Guide*, the *EVMS Interpretation Guide*, and the *Over Target Baseline/Over Target Schedule Guide*. This collaborative approach ensures that there is a value proposition for both DoD and industry regarding cost-efficient EVM implementation.

While there is virtually unanimous belief that Schedule Margin can be a valuable tool for managing a project's schedule risk, there has been a longstanding division of opinion between government and industry over its proper treatment and usage. The September 2015 release of the IPMR DID closed that divide. PARCA, through a series of meetings with scheduling experts on both sides, coordinated a solution that not only met the management needs of the industry contractors, but included parameters and safeguards to alleviate the concerns of their government customers. This resolution would not have been possible without PARCA's leadership—bringing all concerned parties together and providing a forum for open and constructive communication.

EVM Central Repository. PARCA has upgraded the EVM-Central Repository database. It provides instructive training for industry submitters in addition to offering face-to-face issue resolution meetings so all entities can understand and correct deficiencies. PARCA also provides industry with a monthly review and report of its Control Data Requirements List deliveries.

On behalf of the NDIA IPMD and its Board of Directors, we strongly believe that PARCA has provided the gateway for significant contributions to improving the management process as it relates to Better Buying Power in the defense industry. PARCA has led the efforts to streamline the program management process for the Office of the Secretary of Defense (OSD) and industry by establishing directives and guidance that focus on value-added program management information.

Through PARCA's efforts, Earned Value reporting has been streamlined by consolidating several management information reports into the IPMR and by reducing the levels of cost and schedule reporting. Together with reducing the quantity of items requiring variance analyses, this ensures that only meaningful management information is reported. This reduction in prescriptive guidance was consolidated into an earned value interpretive guide which better clarified the requirements for an earned value management system.

Through industry outreach and Web-based clearinghouse efforts, PARCA normalized the fluctuating interpretations of EVMS requirements by the various buying departments within DoD. In essence PARCA became the "ombudsman" for industry and government in resolving cost, schedule and management reporting issues.

PARCA's efforts, especially its collaboration with industry, have significantly reduced nonvalue-added cost and schedule reporting, saving hundreds of millions of dollars over the life of Acquisition Categories I and II development and production programs. However, history shows that management science and practice are not static but depend on continuous interactive dialogue between government and industry. For that reason, NDIA IPMD believes it is imperative that the PARCA's knowledge base be maintained and that it remain within the OSD. 

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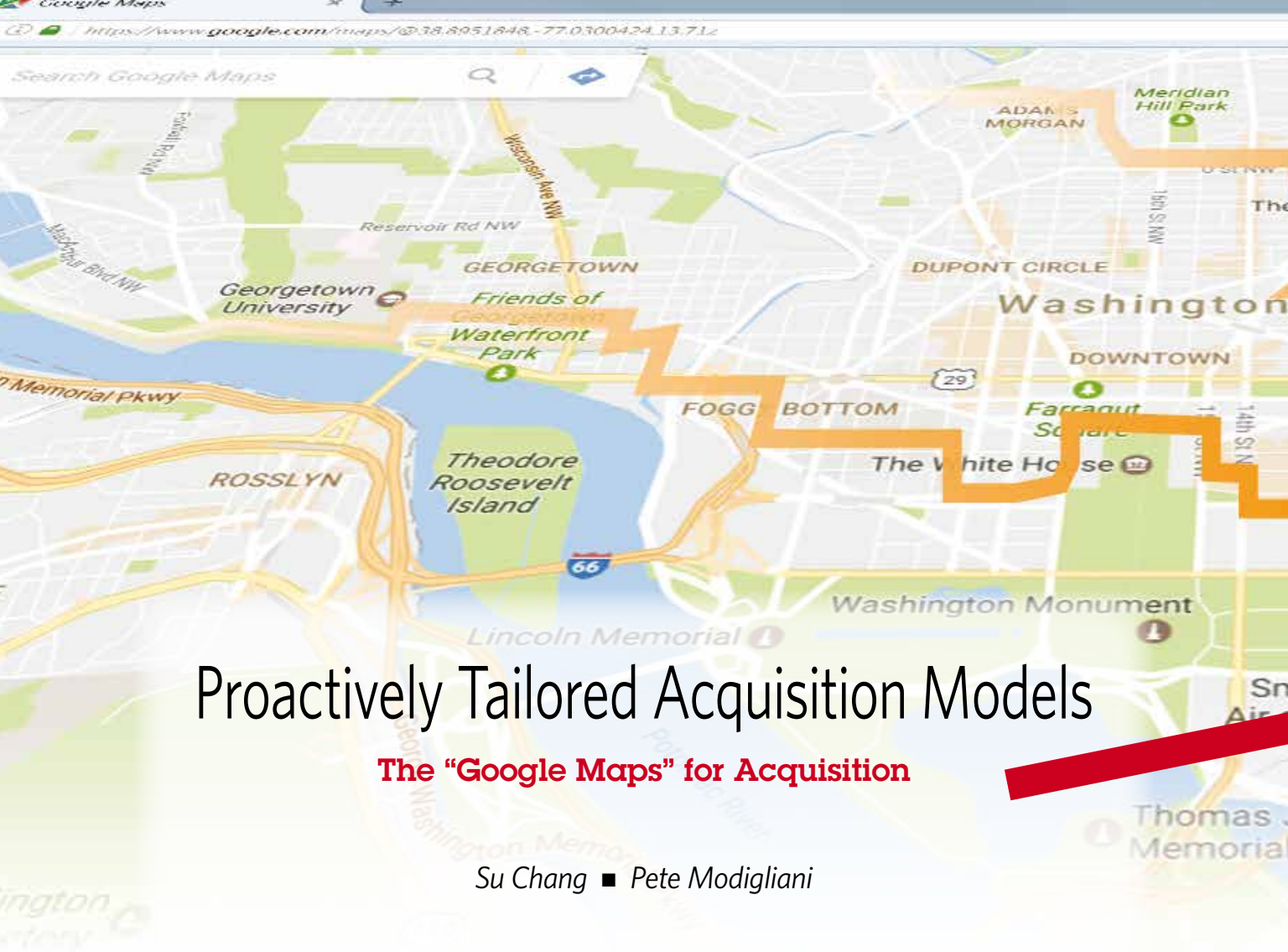
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Proactively Tailored Acquisition Models

The “Google Maps” for Acquisition

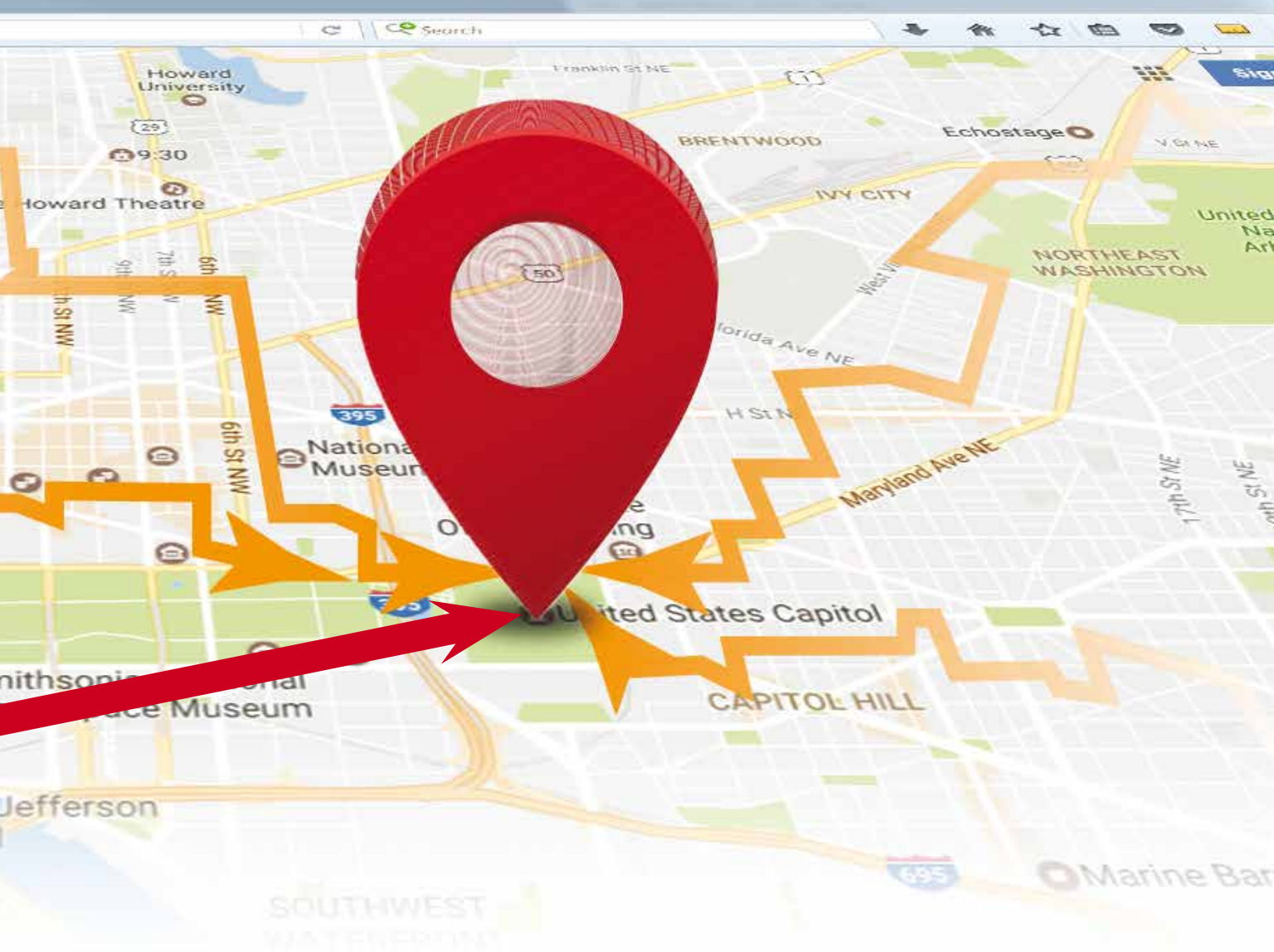
Su Chang ■ Pete Modigliani

The Department of Defense (DoD) acquisition system is a complex enterprise that requires professionals with many years of experience to expertly execute. The acquisition workforce is highly encouraged to tailor the acquisition process to most efficiently deliver capabilities; however, despite such broad leadership support, acquisition personnel struggle to understand where and how to best conduct tailoring activities.

Acquisition tailoring encourages a program to modify the acquisition process, program documentation, acquisition phases, and decision levels to most effectively address the program's needs. Tailoring is intended to give the acquisition workforce flexibility and autonomy. Frank Kendall, former Under Secretary of Defense for Acquisition, Technology, and Logistics (AT&L), actively encouraged program managers to think critically and customize the acquisition process the best way they see fit within the constraints of the regulations' intent and statutory requirements.

Many in the acquisition workforce do not have the experience, knowledge and resources to facilitate tailoring. Those who have the experience and vision to tailor processes often face resistance from policy and process own-

Chang and Modigliani are acquisition leaders within The MITRE Corporation. They work with federal acquisition and information technology (IT) executives on major program strategies and strategic IT acquisition initiatives.



ers when seeking to deviate from traditional methods. Furthermore, while current acquisition policy guidance encourages tailoring, in practice there is no policy statement or guidance on when and how tailoring should be conducted. Given the increasing complexity and challenges of the DoD acquisition system, a different way of approaching acquisition is needed to accelerate the learning curve and reduce complexity. Proactively tailored acquisition models can offer a solution to these challenges by enabling the acquisition workforce to navigate the complex acquisition life cycle more efficiently and effectively.

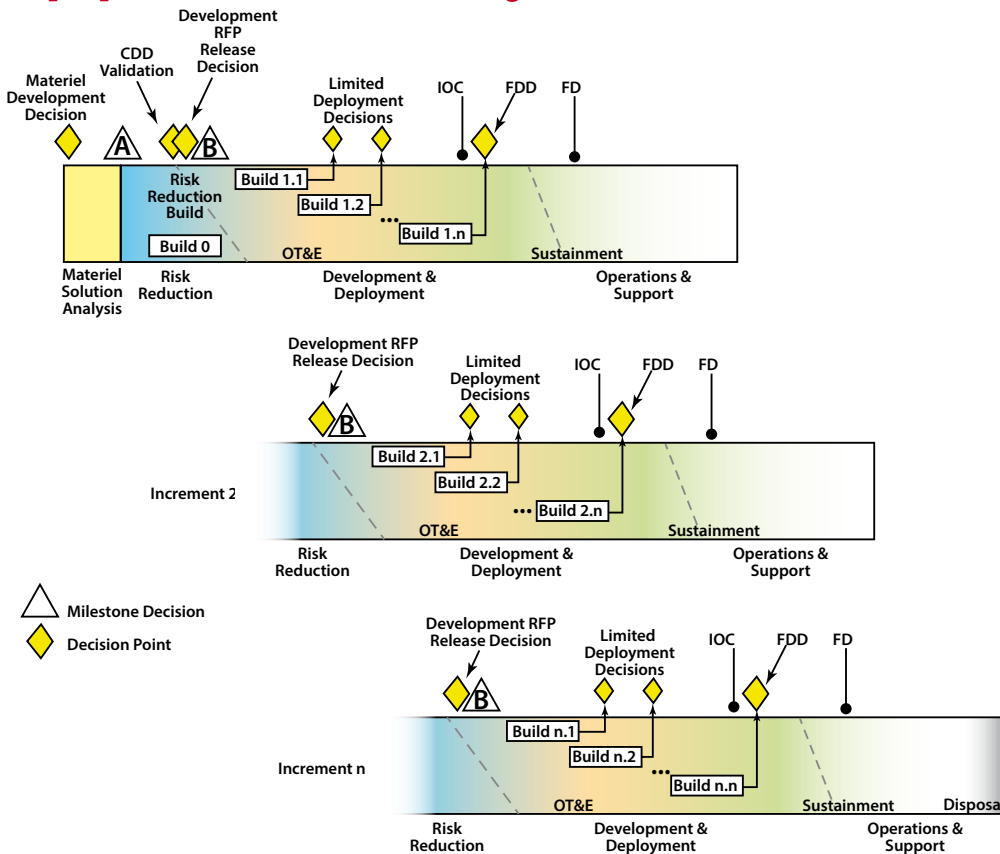
Current Tailoring Practices Need Change

DoD Instruction (DoDI) 5000.02, places a strong emphasis on tailoring and presents six high-level acquisition models based on the type of product or the need for accelerated acquisition. The policy states explicitly: "acquisition programs should use these models as a starting point in structuring a program to acquire a specific product." Kendall outlined in the July-August 2012 *Defense AT&L* magazine article titled "Optimal Program Structure" that "each program be structured in a way

that optimizes that program's chances of success. There is no one solution. What I'm looking for fundamentally is the evidence that the program's leaders have thought carefully about all of the [technology, risk, integration, other] factors."

There are several institutional obstacles that make acquisition tailoring a difficult and challenging exercise. First, each program is presumed to be unique and must undertake the tailoring process on its own. Currently acquisition tailoring resembles "re-inventing the wheel," as each program must strike its own deal with the acquisition executives and independent functional process owners to obtain approval for tailoring. Second, few programs have documented and shared tailoring successes across the acquisition community, and the circumstances in which tailoring has been allowed are not transparent or well defined by the acquisition process owners. Third, acquisition executives and process owners are often inconsistent in what features they allow to be tailored for each program. Even though tailoring is highly encouraged, there is strong cultural resistance to break from traditional methods. AT&L has reinforced the

Figure 1. DoD Instruction 5000.02 Model 3 Incrementally Deployed Software Intensive Program



Source: The U.S. Department of Defense.

acquisition chain of command between the program manager and Milestone Decision Authority (MDA) to minimize external interference, but the process owners still exert significant tailoring influence.

In February 2015, the Government Accountability Office (GAO) published a report “DoD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies.” The report states that programs can spend up to 2 years meeting 49 information requirements and staffing them through up to 56 organizations for approval. The GAO recommended that DoD eliminate non-value-added reviews and documents, consolidate reporting, and delegate approval authorities.

A New Way of Thinking About Acquisition

Today, acquisition professionals are expected to tailor the DoDI 5000.02 on their own. This can be compared to handing them a map and telling them to figure out the best way to drive from New York City to Los Angeles. If this is their first time traveling this route, it would take a lot of time to study the map, plan the route, talk to others about shortcuts, and encounter traffic and detours along the way. Perhaps they will reach their final destination, but not without wasting significant time and fuel. Proactively tailored models are the Google Maps for acquisition. Routes are optimized for the type of product or service

being acquired with turn by turn guidance for each acquisition phase. Tailored acquisition models provide the acquisition workforce with a prechartered route that guide users on a path for success.

Tailored acquisition models are prefiltered to provide only the information, processes, documentation, and reviews that are relevant for that type of acquisition. If a Service or Portfolio Acquisition Executive approves these models for their organization, programs no longer have to re-request tailoring permission and obtain waivers from multiple oversight organizations. Programs can operate with pre-authorization to streamline specific procedures and documents based on the type of product or service being acquired.

DoD Instruction (DoDI) 5000.02 features a series of six high-level models that serve as examples of tailored

defense program structures. For example, an incrementally deployed software intensive program should use Model 3, outlined in Figure 1, as a starting point for the acquisition.

If a program wanted to execute a software program using an Agile development methodology, the program would need to figure out how to tailor Model 3 to address the unique aspects of Agile development. Without guidance or experience, this can be a difficult and daunting task. Figure 2 is an example of a proactively tailored model for acquiring capabilities using an Agile software development methodology. The MITRE Corporation developed this model based on input from Agile experts across the acquisition community, and it builds on the success of programs that were early adopters of Agile in DoD. This model goes beyond the DoDI 5000.02 to provide the workforce the next level of detail across the acquisition life cycle. For example, instead of managing all requirements via a large Capability Description Document that can require 2 years to develop and coordinate, programs can use an Information System—Initial Capabilities Document (IS-ICD)—and manage a program backlog of user story requirements. System design, development, integration and testing goes from a linear approach for the whole system to a series of releases and sprints that each go through the full development cycle to regularly field a subset of capabilities. This model is not intended to be

a one-size fits-all solution for every Agile acquisition program, but offers a solid starting point for a program to further tailor as needed.

Each acquisition program has unique requirements and features; however, several categories or groupings of acquisitions could benefit from having their own tailored acquisition model. DoD could develop a suite of proactively tailored acquisition models to cover a broad range of commonly acquired products and services, such as aircrafts, ships, ground vehicles, space systems, missile/munition, information technology (IT), communications and networks, business systems, and technical services. Conversely they can be designed around acquisition type or methodology (e.g., agile software development, cloud-based services).

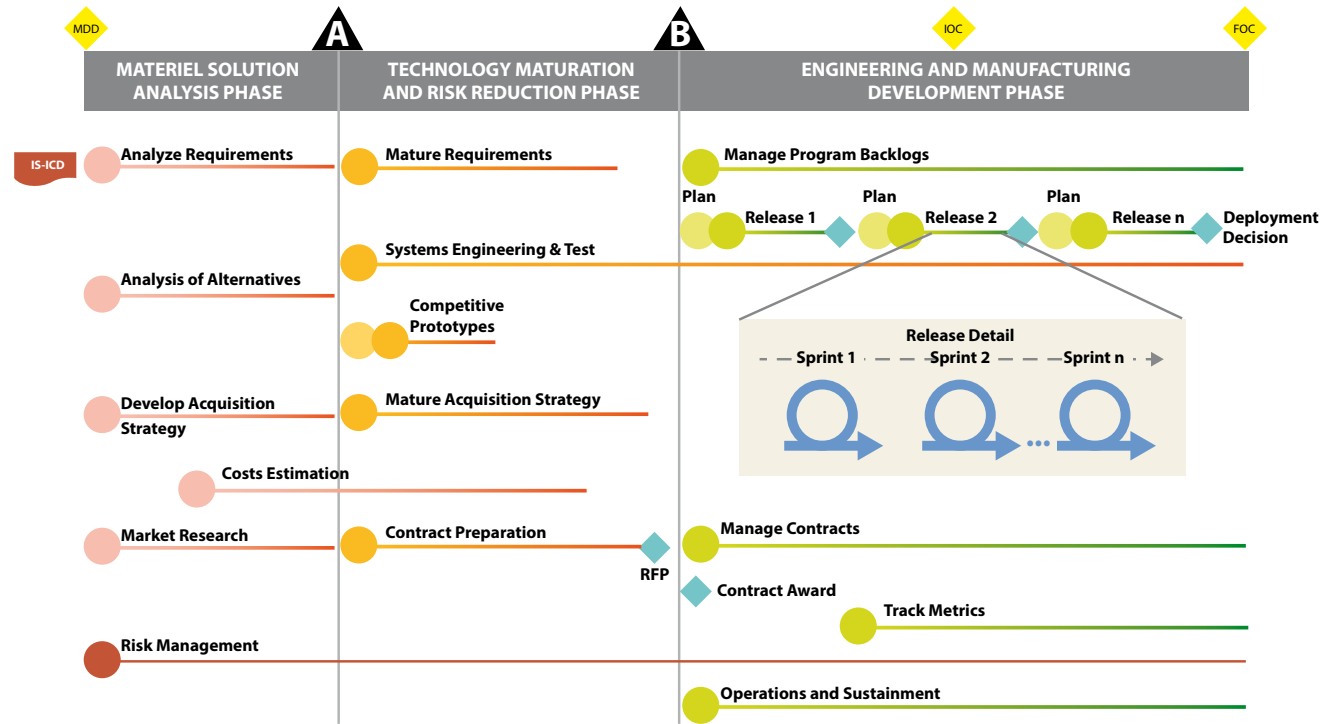
Tailored acquisition models will not replace or eliminate critical thinking. They will offer a better starting position for the acquisition workforce to work from. This enables the workforce to spend less time identifying the processes and documents, less time negotiating the tailoring processes with functional leaders, and more time designing innovative strategies to deliver mission critical capabilities. Best practices and lessons learned can be folded into the models to more broadly replicate effective practices throughout the workforce. This will accelerate the learning curve for the acquisition workforce by providing more direct access to the information that is relevant to each acquisition and saving the workforce considerable time and effort that might otherwise be lost attempting to identify and

This enables the workforce to spend less time identifying the processes and documents, less time negotiating the tailoring processes with functional leaders, and more time designing innovative strategies to deliver mission critical capabilities.



seek concurrence on the required activities and documentation. Programs can save months in planning and coordinating a tailored approach.

Figure 2. Example of a Tailored Acquisition Model for Agile Software Development



Source: The MITRE Corporation.



Given that IT acquisitions can range from system development to acquiring IT as a service, all programs shared a common initiation phase to perform upfront analysis and to determine the best acquisition model to follow.

Models ideally would include guidance and recommended templates for each required program document with tailored questions to drive critical thinking for the unique aspects of the program strategy. Acquisition executives could infuse their strategic guidance into the models with better assurance that programs will follow them as they navigate the acquisition life cycle. Each organization can collect best practices and lessons learned from acquisitions of that particular program type and integrate the Service-unique policies, processes, documents, and approvals into the model.

Tailored Models in Action

In 2014, MITRE worked with the Defense Information Systems Agency (DISA) Component Acquisition Executive (CAE) and operational directorates to develop nine proactively tailored IT acquisition models. The models spanned multiple development, commercial/government off-the-shelf, and IT services alternatives. Given that IT acquisitions can range from system development to acquiring IT as a service, all programs shared a common initiation phase to perform upfront analysis and to determine the best acquisition model to follow. DISA captured the models in a guidebook outlining the key activities in each phase and providing many references. Each section included key questions for acquisition professionals to stimulate critical thinking about program strategies and execution. DISA's CAE stressed that the workforce should not blindly follow the acquisition models in a cookbook fashion, but rather use the models as a guide to navigate the complex environment and tailor the acquisition based on their own program environment.

In 2014, MITRE published a *Defense Agile Acquisition Guide* outlining how DoD IT acquisition program offices can tailor

program structures and acquisition processes to effectively adopt Agile software development methodologies. Agile has seen a rapid growth in adoption across the DoD and the federal government with a strong demand for guidance on how to effectively integrate Agile concepts into the acquisition environment. MITRE is working on publishing a tailored Agile software development acquisition model and others via an online platform available to government sponsors to demonstrate how the defense acquisition workforce can effectively leverage Agile strategies and tools.

Summary

Proactively tailoring a suite of acquisition models helps to focus programs on their particular core elements. As a result, acquisition professionals can navigate the acquisition life cycle faster, leveraging the best practices and exemplar strategies of many previous programs. This would enable them to spend less time identifying the processes and documents required and more time designing innovative strategies to deliver affordable systems that leverage leading technologies. Assembling a team of experts from across the DoD to chart clear paths for each major type of acquisition program would improve the rigor and success of acquisition and respond to DoDI 5000.02 guidance to tailor the acquisition process. &

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MDAP/MAIS Program Manager Changes

With the assistance of the Office of the Secretary of Defense, *Defense AT&L* magazine publishes the names of incoming and outgoing program managers for major defense acquisition programs (MDAPs) and major automated information system (MAIS) programs. This announcement lists all such changes of leadership, for both civilian and military program managers for the months of November-December 2016.

Army

Col. Joseph A. Hoecherl replaced **Col. Jeffery E. Hager** as project manager for the Apache Attack Helicopter (AAH) on Nov. 3.

Navy/Marine Corps

None

Air Force

Col Dennis O. Bythewood relieved **Brig Gen Michael A. Guetlein** as program manager for the Space Based Infrared System Program (SBIRS) on Dec. 15.

Fourth Estate

None



Supply Chain Risk— What Is It?

James Davis ■ John Sullivan

You don't need to work in logistics to understand supply chain risk. Those of us who must deal with snowy winters are all too familiar with supply chain risk. The mere hint of a serious storm drives folks straight to their local grocery stores where soon the shelves are bare of all essentials such as milk and bread (and yes, beer sales skyrocket as well).

The spike in demand temporarily exceeds the supply chain's ability to replenish—and, as the saying goes, “the cupboards are bare.” Fortunately, in a snow storm, we may experience only a couple of days of inconvenience before the weather has cleared and there is ample stock back on the shelf.

So, take a moment and think about the implications if this wasn't a temporary hiccup and instead, our flow of products, milk, bread ... or, say, microcircuits, faced a serious disruption somewhere in the supply chain. Perhaps in raw materials, maybe in the manufacturing process or in the transportation to the customer. For the warfighter,

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such disruptions can be devastating. A look back at World War II shows the classic case of directed warfare on the adversary's supply chain: Germany's failed attempt to destroy the Allied maritime force and the Allies in turn targeting Axis rail, manufacturing and oil refineries. To quote the late retired Marine Corps Gen. Robert Barrow, "Amateurs think about tactics, but professionals think about logistics." Supply Chain plays a key part in an armed force's strategy, but it is also an often undervalued area.

"Let's Just Out Spare the Enemy!"

Who on the pointy end of the sword hasn't ever wanted more supplies ... spare parts, fuel, ammo, food, etc. Relying on a supply chain for critical warfighting requirements

formance. This is really a pretty straightforward definition. In essence: identifying what can go wrong (from gathering the raw materials to delivering the final product to the warfighter) and developing a systematic approach to minimizing the potential disruptions.

What Is the Greatest Risk?

There are many definitions of supply chain. There are equally as many views on supply chain risk and differing perspectives on what poses the greatest threat. Understanding supply chain risk leads to deciding how you manage it. This article focuses on how DoD views supply chain risk compared to industry, what we can learn, and changes we may need to make to manage supply chain risk.



Above all, the engineering and logistics communities must be joined at the hip in order to succeed in this fast-paced, leaned-out global marketplace.

can be a nerve-wracking situation. But as we all know, it's just not feasible to have everything we need on station for an extended time. To quote Apple's Tim Cook, "inventory is evil." While those of us who have been frustrated by a "stock out" may disagree, there is no denying the cost and footprint that comes with maintaining massive mountains of inventory alongside our warfighter.

By now you might be saying "This article is supposed to be about Supply Chain risk. What's up with all the talk about inventory?" Well, in the Department of Defense (DoD), we've traditionally dealt with supply chain risk by stocking large amounts of inventory—not to the point of a limitless supply on the battlefield, but we have been known to have very robust forward deployed inventory positions. All of that comes with a cost—both in dollars and footprint.

So, I get it: Inventories come with a cost, and holding inventory has risks of its own (opportunity cost, obsolescence, etc.). A balance is needed between my inventory on hand and the re-supply of follow-on inventory through the DoD supply chain. It's critical that to get this balance right and determine where the greatest threats to our supply chain are lurking and then develop the best approach to assume, avoid, transfer or mitigate this risk.

What Is Supply Chain Risk Management?

According to the APICS Supply Chain Council, supply chain risk management (SCRM) is the systematic identification, assessment and quantification of potential supply chain disruptions with the objective of controlling exposure to risk or reducing its negative impact on supply chain per-

Our supply chain reality has many disparate participants, to include government and commercial product support providers. Our supply chain must deal with random customer demand, imperfect transportation pipelines, weather delays, labor stoppages, political uncertainty and a shrinking, or at best, volatile vendor base.

One of the most recent entries focus areas for supply chain risk is cybersecurity. Although cyber is getting a lot of attention as a "new" threat, it has been around since we started using computers to account and order supplies. System downtime, buggy programming, communication disruptions and lack of expertise were all risks associated with what we now call cyber. In the past, one IBM punch card out of place could have serious supply chain implications. However, this is but one of many possible supply chain risk topics.

To solve this problem, President George W. Bush signed the Comprehensive National Cybersecurity Initiative (CNCI) in 2008. CNCI established three overarching focus areas, each one comprised of four distinct sub-initiatives. One of the sub-initiatives calls for developing a multipronged approach for global SCRM. One of the results of the Bush initiative was the DoD's establishment of a strategy for Trusted Systems and Networks. The DoD created the Trusted Foundry Program (TFP) in 2003 to respond to the threats of offshoring of microelectronics fabrication and the resulting diminishing influence of the DoD on leading-edge microelectronics research and development. The National Security Agency and the Defense Microelectronics Activity equally fund the TFP.

Table 1. Supplier Risks Faced by AMC, as Identified by the Strategic Sourcing Working Group

Labor disruptions—external strikes, internal Base Realignment and Closure	Funding consistency & timing
Delays in contracting awards	Life-cycle changes
Length of & scope of terms of contract	Sequester—small firms going out of business
Counterfeit parts	Long administration and production lead times/delays in contracting
Quality escapes	Business consolidations
Aging infrastructure & workforce	Unpredictability in ordering, changes in demand
Delay in receipt recording at storage facility	Acts of God: fire, quake, flood, hurricane
Raw material shortage	First article test requirement extends delivery schedule
Foreign sources of supply, geopolitical issues	Lack of mitigation plans at prime & lower tiers
Extended development time & costs	Database inaccuracies

Source: RAND Corp. reports done for U.S. Army and Air Force.

Industry and Military Views of the Biggest Threats?

The following two examples serve to illustrate the relationship between DoD and commercial supply chain risks.

RAND Corp. conducted recent 2015 studies on the Army and Air Force supply chains. RAND's focus was on the risk inherent in both Services supply chains. It looked at the supplier risk side for the Army Materiel Command (AMC) and listed examples of risk (Table 1).

It is interesting to note in the AMC study that the only risk possibly linked to cyber is database inaccuracies. Of course, this risk has existed since the application of automation in our supply chains.

To get an industry perspective, Figure 1 is excerpted from a presentation by Supply Chain Insights, LLC. It specifically identifies the top three Supply Chain risk drivers as viewed by industry. It is interesting to note the commonality between the industry risk identification and the RAND AMC study. Why? The commercial supply chain is our supply chain.

How Do and Should We Deal With This?

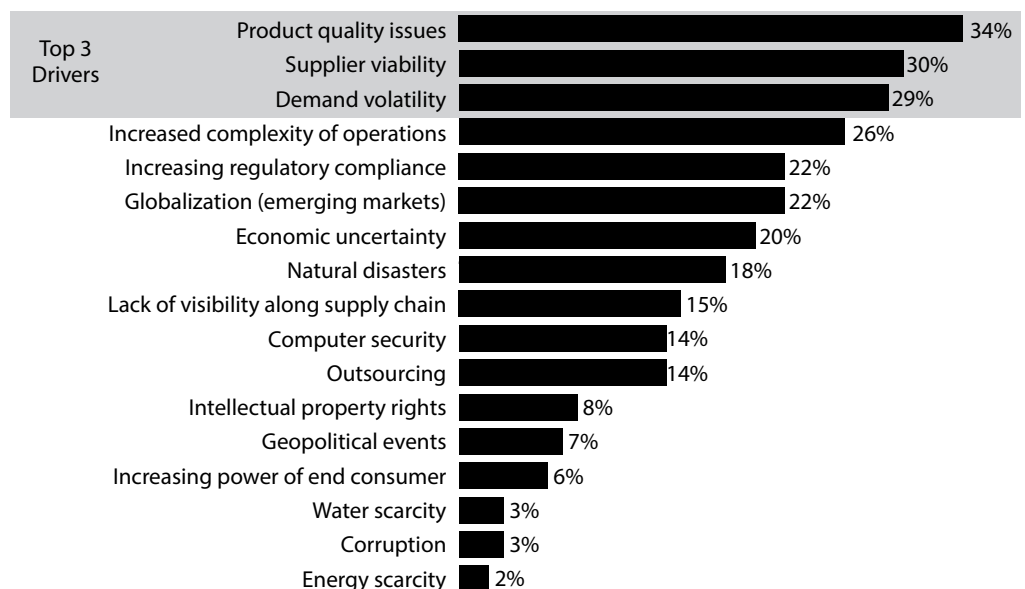
As mentioned above our most recent focus on supply chain risk has been on cyber. RAND's research report RR549, *Identifying and*

Managing Acquisition and Sustainment Supply Chain Risks, which evaluated Air Force supply chain risk management, states:

DoD also has policies to address risks posed by underutilization of existing inventory. But it does not have policies for managing a number of supply chain risks such as those posed by environmental risks, natural disasters, pricing, geopolitical events, and other events that are discussed in the business literature. . . .

Altogether, we found that supply chain risk management is not consistent across the Air Force and, where it is practiced, it is often not sufficient. Weapon system managers reported a lack of enterprise-wide supply chain risk management procedures and mechanisms. They also differed in the extent to which they considered supply chain risks. Few had mitigation plans for such

Figure 1. Three Top Drivers of Supply Chain Risk



Source: ©Supply Chain Insights LLC.

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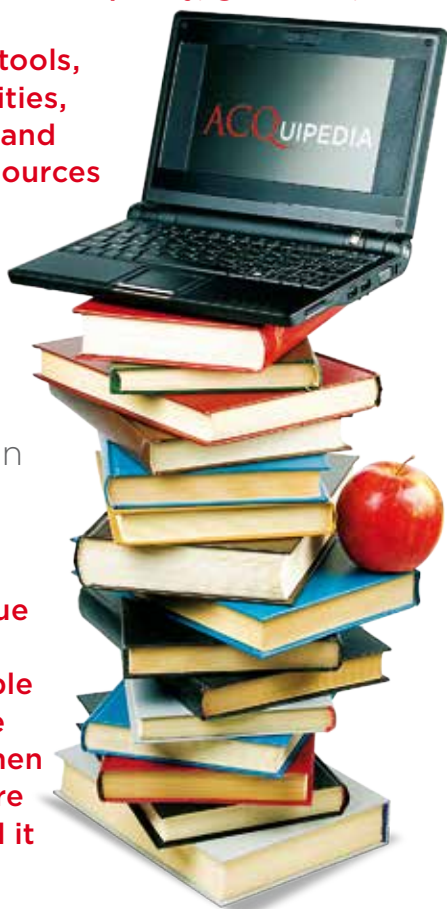
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risks. One reason cited for the lack of a proactive approach to supply chain risk management is the lack of tools for identifying such risks.

Is SCRM Really That Important?

We've presented information about supply chain management and risk. We've also provided data from reports that indicate what both government and commercial entities believe they face in the way of supply chain risks. These reports and studies offer recommendations about how to handle these risks. However, much of this is general information. What happens when a supply chain risk is realized? What are the implications? Let's take a look at a "real world" example from the commercial sector.

Boeing developed the 787 Dreamliner as a revolutionary commercial aircraft. Much of the engineering was completed using computer simulation. The aircraft would be made from an unprecedented amount (about 50 percent of its airframe) of carbon fiber. This approach would create significant developmental and supply chain risks.

This revolutionary design would require a high tech fastener made from titanium instead of the traditional aluminum. Boeing was also sourcing this new fastener from a supply base that had reduced its workforce, and therefore capacity, by about 40 percent since the terrorist attacks of Sept. 11, 2001, due to airplane order cancellations. When Boeing planned on ramping up production with new technologies, it relied on a fastener supply base years behind in its ability to produce at the required rate and quality. Adding to the risk was Boeing's aggressive plan to lean out inventory and virtually eliminate any safety stock of fasteners. In other words, the supply chain was left with no room for errors or waste. In the end, there were unforeseen engineering challenges that required about 8,000 fasteners to be replaced in each aircraft ... fasteners that were not readily available. The result, when the risk became an issue, was production and delivery delays with the rollout aircraft being held together by temporary fasteners. The old adage "for want of a nail the kingdom was lost" was very applicable.

What does this mean for the DoD supply chain's risk management? One clear lesson is the need for proper coordination and communication among all partners. We often rely on a Product Support Integrator (PSI) to bring the Product Support Providers together in delivering support. What level of data and information visibility do we have into the PSI's supply chain? What is the PSI's risk management plan? Are their processes so lean that they've created single points of failure? What is the supply chain variability? These are lessons the reports and Boeing's experience teach us. Having a well-developed and vetted SCRM plan is a necessity. Above all, the engineering and logistics communities must be joined at the hip in order to succeed in this fast-paced, leaned-out global marketplace. &

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A Better Way to Write Contracts

LT Stephen C. Hall, USN

In 2010, Ashton Carter—then Under Secretary of Defense for Acquisition, Technology, and Logistics—established the Better Buying Power initiative. The initiative challenged acquisition officials in the Department of Defense (DoD) to seek savings by eliminating excessive costs and unproductive overhead and by increasing industry's involvement. Both objectives can be achieved if the DoD increases industry's share of the administrative burden necessary to arrive at an executed contract.

Industry's share of administrative burden can be increased if, after a contractor has been selected, the DoD requires the contractor to use its own resources to write the physical contract. The DoD should begin to migrate away from this responsibility because writing the contract itself does not add value to the contracting process and industry can institute a more efficient process. Both the DoD and industry stand to gain from this practice.

If the DoD is trying to adopt better commercial practices then DoD should evolve from how it did business more than 20 years ago. Think about how contracts are formed between parties within the private sector. Does the buyer of the goods or services write the contract and then send the contract to the seller? Or does the seller respond to a need, communicated by the buyer, with a contract that is ready to be signed by the buyer if acceptable? It is most often the latter.

Hall is a contract specialist with the Department of the Navy. He has 2 years of acquisition experience and holds a Bachelor of Science in Finance and a Master of Science in Finance from Louisiana State University.



Many agencies within the DoD rely on the Standard Procurement System, Procurement Desktop-Defense (SPS/PD2). Some agencies use other programs such as Microsoft Word. No system is consistently used by the DoD. The contractor that created and maintains the SPS/PD2 software states on its website the system's purpose:

In the early '90s the DoD sought commercial software and best practices to streamline procurement, one of their [sic] major business functions. This effort eventually led to the DoD Standard Procurement System (SPS), deployed using our Procurement Desktop-Defense (PD2) application.

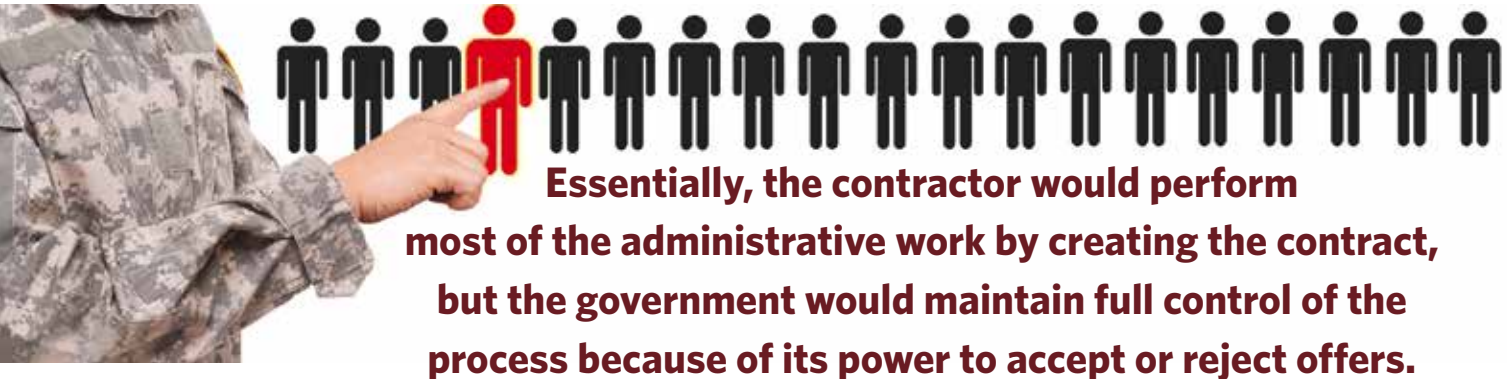
More than 20 years later, according to the contractor's website, PD2 is still "providing the technology and business process foundation necessary for DoD to achieve its procurement business goals by ... eliminating multiple outdated legacy systems and automating manual business processes." This statement implies that the goal was, and still is, to streamline the contract writ-

ing process and to eliminate "multiple outdated legacy systems." The system has not done so because many DoD agencies still use various types of contract writing software. What is the cost to the taxpayer for this software that was designed to integrate and streamline but has yet to accomplish the objective more than 20 years later? In 2006, a contract was awarded in the amount of \$70 million (1 year with 4 option years) to continue support for SPS/PD2. If the contract cost \$70 million for 5 years, then what has been the total cost since inception? Has SPS/PD2 streamlined procurement? Has it eliminated multiple outdated legacy systems? Is the price for this process worth the benefit or is there a better way? I argue that there is a better way.

The technology environment has fundamentally changed since the early 1990s, which has dramatically increased the ability of contractors, particularly small businesses, to do business with the government. Despite significant effort, SPS/PD2 remains a product of the early 1990s that does not meet the needs of today's information technology environment. It is unreliable and

non-user friendly. Today, vigorous competition by industry and for industry can create a much better commercial software product that creates contracts in the uniform contract format as required by the Federal Acquisition Regulation. The DoD should stop attempting to acquire and maintain its own contract writing software and instead should place the burden of contract writing on industry itself.

In a competitive environment, a solicitation would result in potential contracts (not proposals) ready for evaluation and signature. These potential contracts would be transformed into contracts after selections are made. This process would not inhibit the ability of the contracting officer to resolicit or conduct clarifications, communications or discussions. If necessary, new potential contracts could be evaluated after



As a contract specialist, I see firsthand that government contract writing is inefficiently performed. An astounding number of man-hours are spent writing each contract in SPS/PD2. Rather than being occupied with this administrative task, my attention should focus more on bona fide contracting skills such as conducting in-depth market research; interacting with requiring activities to help them draft accurate statements of work (SOWs); or assisting with source selection. Adam Smith (1723-1790), the famous economist, taught the world that the division of labor increases the efficiency of output. Industry will find a more efficient way to write contracts than the government has been attempting for more than 20 years. If this happens, both the government and industry stand to benefit because then each will focus on tasks it is most capable and inclined to perform.

What would it look like if industry were to write contracts for the DoD? Requirements definitions, SOWs, performance work statements (PWS), solicitations and evaluations would remain under government control. All solicitations would be advertised by using government points of entry as opposed to using SPS/PD2 to build solicitations. The contractors would be responsible for creating responsive offers that conform to the uniform contract format. The government would evaluate offers received and make a selection. Part of being considered responsive would be the contractor's utilization of the correct contract format and the inclusion of all the applicable clauses. Contracting officers would still be responsible for verifying the accuracy of every detail and would award the contract via their signatures. Essentially, the contractor would perform most of the administrative work by creating the contract, but the government would maintain full control of the process because of its power to accept or reject offers. This would create an incentive for industry to get the contract right fast and to get it right the first time.

a resolicitation. In the area of sole source, particularly actions under the Simplified Acquisition Threshold, this new process could be immensely helpful. After justifying a sole source, imagine going to a contractor's website or sending the contractor an email simply communicating your PWS or SOW. In return the contracting officer would receive a "ready to review/ready to sign" potential contract in just as short a time as the contractor would be eager to begin the work.

As a result, in both competitive and sole source environments, the acquisition timeline would be reduced because the onus would be on the contractor to create a timely and accurate contract prior to beginning any work. This reduced acquisition timeline helps the contractor and the government. Cash flow for the contractor will improve because the work will begin and finish sooner, which will allow the contractor to be paid more quickly. The government will benefit because it will receive its goods and services earlier.

In some very simple acquisitions, such as commercial off-the-shelf software (where the DoD Enterprise Software Initiative requires procuring certain software from specified contractors), the software could be requested, contracted, delivered and paid for in a single day. That is what an industry-to-industry software buy would look like. The government would not need to use its own labor force to write contracts in cases where the government already knows with which business it will contract. Instead, the government could focus strictly on the accuracy of the content in the industry-presented contract. In this process, the government's administrative burden would be reduced and industry could deliver the product sooner and be compensated faster.

This proposal inherently comes with challenges. What would happen if the contractor placed the wrong clauses or forgets

clauses in the contract? Today, if the government places the wrong clauses or forgets clauses in a contract, the “Christian doctrine” protects the government by permitting the incorporation by law of mandatory contract clauses that express a significant or deeply ingrained public procurement policy. Would the Christian doctrine still apply if the government agreed to the wrong clauses? It’s an area to consider, but precedence indicates the courts would likely protect the government.

A process would need to be created to allow the contracting office to input the contract into Wide Area Workflow for proper invoicing and payment for contracts that do not use the Government Purchase Card as a method of payment. Also, the contracting office would be required to input the necessary contract data into the Federal Procurement Data System. Currently, SPS/PD2 achieves both these functions, yet other agencies that do not use SPS/PD2 still accomplish this. The most visible challenge would be an initial increase in the contractors’ cost of doing business with the government. This would present a major hurdle to clear with the Small Business Administration (SBA) because the increased costs would disproportionately affect smaller firms compared to large ones.

Beyond potential SBA resistance, Congress would likely be a formidable opponent for the same reason, especially since the DoD has the largest footprint in federal contracting. The other side of the coin is that industry will see this as an opportunity to create competitive software products to do business with the government. Vigorous competition could, theoretically, create excellent and inexpensive software options that small businesses can use to write their contract proposals in a more efficient manner than relying on the government to do so. It is worth exploring whether the increased costs to industry are worth the increased cash flow and reduced acquisition lead time.

The first step to testing this idea would be a pilot program. Such a program should start with large businesses that offer products in a sole-source environment, such as with the DoD’s Enterprise Software Initiative. The metrics used to determine success would include the length of the acquisition lead time and the number of government labor hours spent pursuing contract awards. If the contracts are awarded in a more timely fashion, with the same accuracy and less government labor at the same price, then success would have been achieved.

In conclusion, the removal of SPS/PD2 aligns with the Better Buying Power goals to eliminate excessive costs and unproductive overhead and to involve industry. Let’s begin the conversation with industry and discover its level of interest. Let’s see how frustrated industry is with the cumbersome and slow acquisition process and whether the added cost of writing contracts is worth the decreased acquisition lead time and improved cash flow. Most important, let’s see if we can save taxpayer dollars while continuing to defend this nation. &

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An Argument for Process-Based Audits

*Christopher Kluse, Ph.D.
Mark S. Phillips, Ph.D.*

The cornerstone of Government Contract Quality Assurance (GCQA) is the ability to verify that a product or service conforms to the terms of a contract. Performing this verification historically has been a challenging task.

Over time, these practices have evolved into the processes we have in place today. However, in the early days of World War II, GCQA was experiencing difficulties based on the volume of war materiel produced. The promise of an “Arsenal of Democracy” was at risk due to inefficiencies in production processes and inspection. To meet the demand, inspectors were hired to inspect all of the products. This proved troublesome due to the volume of products and difficulties in providing trained inspectors, according to the American Society for Quality (ASQ) 2016 Web article, “World War.” The article stated:

During this period, quality became an important safety issue. Unsafe military equipment was clearly unacceptable, and the U.S. armed forces inspected virtually every unit produced to ensure that it was safe for operation.

Mass inspection was not a suitable means to ensure product quality. It was also impractical to try to employ vast armies of inspectors. To help improve GCQA, methods of sampling were introduced, “With the aid of industry consultants, particularly from Bell Laboratories, they adapted sampling tables and published them in a military standard, known as Mil-Std-105.”

The introduction of sampling plans allowed the government to use statistical methods to examine production parts. This statistical approach required less personnel and allowed inspection based on risk. However, it was realized that “inspecting in quality” was a poor substitute for manufacturing quality into a product. With the lessons learned from World War II fresh in the collective mind of the Department of Defense (DoD), in the late 1950s the government rolled out Military Specification MIL-Q-9858A, Clause 8.1 of which states:

Total conformance to contract requirements cannot be obtained effectively and economically solely by controlling inspection and testing. Therefore, it is essential to control work operations and manufacturing processes as well as inspections and tests. The purpose of this control is not only to assure that particular units of hardware conform to contractual re-

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quirements, but also to assure interface compatibility among these units of hardware when they collectively comprise major equipment's, subsystems and systems.

MIL-Q-9858A laid the foundation for Quality Management Systems (QMS). It also described the importance of process control as a means to ensure product quality was "manufactured" in and not "inspected" into the product.

The Quality Revolution, a Paradigm of Change

A quality revolution began in the 1980s with the introduction of Japanese-originated Total Quality Management (TQM) systems. By the late 1980s acquisition reformists saw the system of Military Standards as an impediment to efficient procurement practices. Although MIL-Q-9858A laid the foundation for Quality Management Systems, the commercial ISO standard was viewed as a suitable replacement for the Military Standards. By the early 1990s this pressure for change was being felt at the Office of the Secretary of Defense (OSD). In March 15, 1994, Defense Secretary William Perry communicated that we needed to shift from a management philosophy that attempted to achieve high quality and performance through after-the-fact inspections to one that prevents defects through controlling its processes and reviewing the process controls of its contractors (focus on process control rather than hands-on inspections). His view was later turned into action. In the *Acquisition Review Quarterly* for summer 1998, Lt Col William P. McNally, USAF, stated: "On June 29, 1994, Perry issued a directive that outlined a preference for performance and commercial specifications over MILSPECs and MILSTDs."

Essentially, this represented a shift in philosophy; commercial quality specifications became the preferred approach when assessing quality management systems for military sourced components. Thus, with a stroke of a pen MIL-Q-9858A was rendered obsolete and superseded by commercial quality specifications.

International Standards and Flawed Registration

In the late 1960s and 1970s, industry took the lead from the military and began conducting its own supply base audits. During this time, organizations began implementing their own quality programs, based on internal standards, in an effort to gain and/or maintain contracts with the military and government agencies. Because of a lack of industry standards, many organizations turned to the military standard as the basis for evaluating supplier quality systems. Auditors from the customer typically were from the organization's purchasing department and the scope of the audit was to assess the supplier's capability to provide product according to the contract specifications.

Additional surveillance audits often were conducted to assure that the system had been maintained throughout the life of the contract. This customer-supplier audit practice progressed in magnitude, resulting in a vast number of audits required of a given organization. In an effort to reduce the numbers of audits that an organization would have to undergo, and to encourage global standardization for customer-supplier audits, a Technical Committee (TC 176) was formed by The International Organization for Standardization (ISO). The result was the series of ISO Quality Assurance Standards, ISO 9001, ISO 9002, and ISO 9003 published in 1987.

Third-Party Registration and Its Evolution

Not too long after publishing of ISO Standards series in 1987, external third-party audits exploded in magnitude mainly due in part to the perceived necessity to become “ISO Certified” as an organization.

While initially attractive as the basis to prove that an organization has a structured quality system in place, it was soon realized that the certification by no means equated or guaranteed acceptable quality. The registration body, referred to as the “registrar” is selected (i.e., they pay the bill for the process) by the organization seeking certification to the ISO standard. The organization pays for this service and, thus, the term “third party” registration is used. However, the mere fact that the organization pays for this service suggests otherwise. Once the registrar is selected, generally a preliminary audit is conducted. Observations and action items are written and often are deemed opportunities for improvement (OFIs) and non-conformances (NCs). The organization formally addresses these items, and is then “ready” (typically) for the final registration audit. At the conclusion of the registration audit, similar actions (OFIs and NCs) are presented by the auditor; once formally closed, the organization now is ISO 9000 certified.

It also is well known and documented that some audit findings are trivial and don’t uncover significant organizational problems with quality. An example of this is the Firestone-Ford Explorer Rollover case in 1990. The third-party registrar was asked why the audit did not uncover the problem. Multiple third-party auditors came to their defense, stating this was not the scope of the audit and it was not designed to “find” these type of issues.

Finally, the registrar or auditor has no jurisdiction over the organization such as the Environmental Protection Agency or the Occupational Safety and Health Administration would have over organizations. Thus, by definition, it’s not a third-party audit.

Audit and Certification Process Flaws

While the ISO certification scheme has existed since 1987, the ISO standard as written does a fine job outlining the minimum requirement for a functional quality management system (QMS). It is the flawed audit and registration scheme that leads to non-value-added activity. First, the organization funds the entire process, and it is safe to assume, since the organization is the customer, that registration is certain even if an audit goes poorly. The registrar is not obligated to “pass” any organization—but without customers, the registrar does not exist. This process is analogous to an organization hiring a consultant to conduct an internal or first-party audit. Also, the auditor(s) may or may not have any experience with the product or process audited or may lack management systems knowledge.

Weakness of QMS Audits

The Federal Acquisition Regulation (FAR), Part 52.246-2, stipulates that, “The Contractor shall provide and maintain

an inspection system acceptable to the Government.” Additionally, FAR Part 52.246-11 says, “The Contractor shall comply with the higher-level quality standard(s),” when higher level quality requirements are invoked. The weakness of the application involves “what is acceptable” and to “what standard.” The government does not recognize third-party certification. Most organizations using an ISO-based QMS have been certified by a third party. In some cases, the government serves a redundant purpose, but in others it becomes a de facto registration body. The implication is that the organization now has a “certified” quality system and seems in compliance, so why is there such apparent skepticism?

The skepticism arises from the authors’ years of experience with ISO audits and the underlying principles that dictate the registration scheme. There also is a complete lack of correlation between ISO certification and the assurance of a “Quality” product or service, and the two do not go hand in hand. QMS audits are audits of a management system; one must have experience regarding an array of management systems. Additionally, there is no process in place to ensure that the third-party audit scheme is effective.

ISO Audits—No Indicator or Identifier of Risk

Risk assessment is a longstanding concept and was required from previous versions of ISO, even though not necessarily explicitly so. For example, the use of Failure Mode and Effects Analysis has always been required to assess risk in the automotive community. In order for an internal, second- or third-party audit to add value, there should be an assessment of the risk of creating and shipping defective product. It is fine as far as it goes to merely confirm that an organization’s system complies with stated arbitrary international standards. However, as these authors have noted, conforming to a standard does not ensure product quality. Risk assessment can be related to audit effectiveness; if one can locate weaknesses that will allow for creation and shipment of nonconforming product, the audit can be deemed effective since it has met an intended, tangible purpose.

An Argument for Process-Based Audits

For these reasons, it makes sense to look at Process Base Auditing as a replacement for the QMS Audit in GCQA. Looking back to MIL-Q-9858A, “it is essential to control work operations and manufacturing processes.” Understanding processes has always been part of the DoD’s prevention strategy. A properly conducted process audit will ensure the product of interest is being manufactured in a manner consistent with proper process control. In addition, following the process from shipping to product realization also would allow the auditor the opportunity to verify the QMS is performing as required to meet GCQA requirements. &

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Management Consulting

**Great Stuff—But
Beware of Pitfalls**

Brian Schultz

“The best way to predict the future is to create it.”

—Peter Drucker, Management Consultant

Department of Defense (DoD) acquisition program offices often rely on contractor support services, both for program management support and technical support services. The contractor support staff augments the organic program office staff by providing analytical, technical, information technology, and other support.

Additionally, program managers (PMs) may use specialized management consulting services to provide focused support in organizational improvement efforts. This article examines the benefits, pitfalls and success factors associated with these management consulting services. The observations are based on my experiences as both an industry provider and a DoD PM receiver of these services.

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What is management consulting? Wikipedia provides this definition of management consulting: “Management consulting is the practice of helping *organizations* to improve their *performance*, operating primarily through the analysis of existing organizational problems and the development of plans for improvement.”

As indicated in the definition, management consulting can support many areas in different business domains and can be an important tool for DoD PMs. The focus typically is on strategic planning, organizational effectiveness, change management, process improvements, and transformation planning. These engagements require specialized expertise that is often unavailable within the DoD organic team. Management consultants usually have several years of experience within the industry and are highly skilled at problem-solving, organizational development, interpersonal communications, leadership, and emotional intelligence. Various industry sources indicate it’s a multibillion-dollar industry that has grown steadily over the last several years.

Management consulting can provide significant benefits to an acquisition program management office, including but not limited to the following:

Independent Perspective: PMs may find it helpful to obtain an independent assessment of their organizations’ effectiveness, teamwork and morale. Getting a perspective that is free of bias concerning the issues and potential solutions can provide valuable insights. Many consultants recommend an upfront assessment period to examine existing models, processes and organizational behavior. This can include surveys, interviews and other interactions to help determine the root cause problems and potential solutions.

Identification of Organizational Issues: A root cause analysis is critical to addressing and solving problems. Consultants are very skilled at analyzing an organization from many angles and typically can identify the major issues that need to be resolved in order to meet the PM’s objectives.

Best Practices and New Tools: Consultants often will recommend some of the latest methods and techniques that are relevant to the organizational need. They also should be able to train the program office staff on how to implement and use these practices.

Building Organizational Consensus: A good consulting team can shape efforts to build support for implementation plans that support new initiatives. The consultants’ independence as an honest broker can facilitate a more receptive ear to new ideas, processes and solutions.

Filling a Short-Term Need Quickly: This type of organic talent may be hard to find within an agency—and since it is often a short duration task, hiring full-time staff would be inappropriate. Many consulting companies can be hired very quickly

through task order contracts, and they are accustomed to relatively short and focused engagements.

Management consulting fees can be expensive, so customers should carefully assess their needs and alternatives before the engagement begins. PMs should be aware that there are some common pitfalls that can impact the consulting effort. The following potential pitfalls are based on my experiences and observations of less than optimal engagement outcomes:

Organizational Buy-In Lacking and Change Resisted: Organization development, by its nature, affects the entire organization—and often several external stakeholders. In order to be effective, consulting firms may need the entire organization to buy into the effort. This suggests that the need for the effort should be socialized to the organization so that staff members at all levels understand what the consultants are doing and why. Furthermore, if the consultancy is intended to help identify a way forward, then the organic DoD team leads need to be involved in planning implementation steps and timelines.

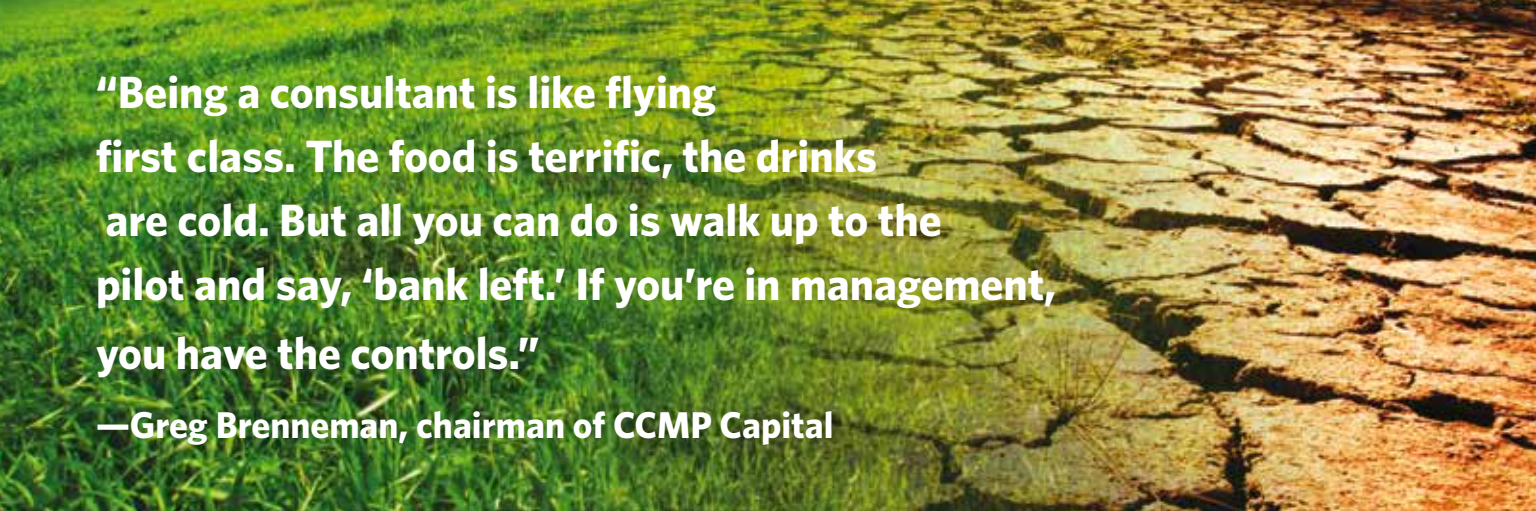
This communications flow-down through the organization is important, especially with large program offices that may include several layers of decision makers and hundreds of staff members. PMs should not assume that word will trickle down to all the right levels in the organization. Including the topic as part of the regular communications battle rhythm and at all-hands meetings are good ways to help ensure that everyone understands the effort.

Getting organizational buy-in can be another challenge. People tend to resist change since it creates some level of uncertainty or fear about the future. PMs should recognize that there must be a continuing effort to obtain buy-in. The organization’s reactions and support should be checked periodically. I have seen cases where leadership was very supportive and engaged at the beginning of a new initiative and later lost interest or gave the effort a lower priority. This behavior can send the wrong message as team members will be carefully observing both leadership talk and actions.

I observed an effort where an organization needed to adopt new business processes as a result of implementing new commercial, off-the-shelf (COTS) technology that would improve the efficiency and responsiveness of its work. Unfortunately, many of the staff members did not want to adopt new processes. They disregarded the consultants’ warnings and insisted on implementing the new information technology in a way that would revert to their old process model. This resulted in a customized COTS software product and a less-than-optimal solution. Modifying the COTS product meant that this agency had a unique software application that could not leverage the benefits of COTS upgrades, maintenance and training. In hindsight, the program office leadership did little to explain the need for adopting new processes and did not enforce implementation decisions that would have prevented the poor result.

Unclear Expectations: Studies and postmortem reviews of failed programs often point to unclear and unstable requirements as a major root cause for the failure. This also applies to management consulting engagements. PMs should consider the classic systems engineering model approach to management consulting requirements in which great emphasis is placed on clearly understanding and defining what is needed (known as the Stakeholder Requirements Definition). The subsequent step, Requirements Analysis, takes the requirements and establishes a functional architecture. This involves

I observed one organization that was often too busy with other commitments to assist the consulting team. Such assistance was obviously not a priority of that organization when compared with other important program office tasks. Despite a detailed schedule and calendar invitations that accommodated the team's busy workload, key staff members would miss meetings and other important events. There also was a lack of leadership governance to routinely review status and issues. As could be expected, both parties were unhappy with the outcome.



"Being a consultant is like flying first class. The food is terrific, the drinks are cold. But all you can do is walk up to the pilot and say, 'bank left.' If you're in management, you have the controls."

—Greg Brenneman, chairman of CCMP Capital

mapping all the functions needed to support the performance requirements. The functions then are organized in a logical manner to ensure they support all the performance requirements with no duplication.

An equivalent approach for management consulting would involve developing the required functions (or tasks) that must be implemented to support the overall desired performance outcomes. This will require critical thinking to build a task hierarchy, similar to a work breakdown structure. The hierarchy serves as a guide in allocating resources and time needed to ensure credible execution. While painstaking to develop, I have observed this approach work well since it ensures the DoD team and the consulting team agree on the outcome desired, interim and final milestones, and a complete list of tasks for the consultants to perform.

Inadequate/Non-Responsive Program Support: Lack of support from the DoD program office team is another potential problem area. In order to be effective, the consulting team must have access to the appropriate information and resources. The DoD PM and program office team leadership should ensure that resources to support the consulting effort are available, including time to discuss observations and recommendations. Given the strategic nature of most of the management consulting engagements, an elevated priority should be given to supporting the consultants' effort.

In order to avoid the pitfalls, it's important for the PM and the lead company consultant to set a good foundation that will enable a successful outcome. Some ground rules for success:

Desired outcome and deliverables: Defining both the outcome and deliverables should be the first step. The desired outcome should drive everything that follows (including any deliverables). The DoD PM owns this task and should ensure consultants understand clearly the overall goal and have an opportunity to seek clarification and provide feedback and suggestions. This desired outcome will also enable the consultants to design an appropriate intervention strategy to facilitate support. An intervention strategy is the specific approach or methodology the consultant will use to enable the outcome.

Metrics for meaningful organizational results: Establishing metrics that will measure the outcome of a project is not always easy but should be addressed before the project begins. If there is no way to verify the proposed project outcome, then the PM may want to consider modifying it so it is measurable. The metrics can be simple and may take time to realize—even well after completion. But it will be difficult to hold teams accountable if there is no way to measure effectiveness. In acquisition, these measurements can take years. I managed an effort in which our metric was the number of potential and signed cooperative agreements. This task took years to accomplish, but the framework our consultant proposed did help us to do so. We kept the metric in place, recognizing it was a

Want to help change the way DoD does business?

Tail Spend Management

Shaping the Future of Acquisition Reform

Jamaya S. "Rocky" Smith

The Department of Defense (DoD) has made tremendous strides in improving how it does business in the acquisition of contracted services. More than 100 reforms have been undertaken since 1975. But recent measures have included the National Defense Authorization Act (NDAA) for Fiscal Year 2016, the Acquisition Agility Act, the Better Buying Power Initiative to Improve Tradecraft in the Acquisition of Services, and the implementation of DoD Instruction (DoDI) 5000.74. These initiatives demonstrate that the DoD has successfully made the shift from a "reactive organization" to a world-class organization of highly skilled acquisition professionals who develop and implement strategies; identify, manage and mitigate risk; and perform analyses to better support strategic initiatives.

While DoD undoubtedly has made a conscious effort to improve management and oversight of contracted services, defense experts such as MacKenzie Eaglen of the American Enterprise Institute have made it very clear that there is growing concern regarding increased spending on contracted services. Eaglen has even suggested that the



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concern is partly attributable to a DoD tendency to spend more and oversee less (*Framing A Defense Reform Agenda for 2017*, American Enterprise Institute for Public Policy Research, 2016). It is no secret that DoD has struggled with contracted services spending in recent years; however, defense acquisition professionals remain determined to overcome this challenge.

In an environment of increased security threats and recent budget constraints, it has been imperative that defense acquisition professionals provide the warfighter the best capabilities in the most efficient manner while reducing costs and ensuring the best use of public funds. In this regard, management of spending, or the lack thereof, has deserved a more prominent focus. Many of the ongoing issues associated with spending such as duplication, fragmentation and misclassification of procurements may be resolved if more attention is given to those acquisitions that have a lower dollar value.

The premise of this article suggests that if DoD makes a paradigm shift from managing “core spending” (also known as spending under management) of total spending for contracted services to managing “tail spending” or the tail-end of total spending for contracted services, it will likely generate costs savings upward of \$30 billion. In the DoD context, core spending is associated with contracted services that have an aggregate value of \$10 million or more. Tail spending is associated with contracted services that have an aggregate value of below \$10 million. Research generally has shown that tail spending management is likely to play a pivotal role in future acquisition reform and Better Buying Power initiatives on contracted services. This article describes the concept of Tail Spend Management (TSM), why its implementation is important for DoD, and provides recommendations for implementation.

With its origin deriving from the Pareto Principle, which suggest that 80 percent of outcomes are attributable to 20 percent of causes, the TSM concept has generally been promulgated for several decades within procurement and supply chain management. Academia and industry have defined TSM as the management of procurements that are at the tail-end of an organization’s total spending. Tail spending typically represents the 20 percent spending of the 80/20 core/tail ratio. According to Professor David C. Wyld of Southeastern Louisiana University, the ratio should not be considered as a hard-fact rule but more as an approximation (IBM Center for the Business of Government, Acquisition Series, *Controlling Federal Spending by Managing the Long Tail of Procurement*, 2013). It is very possible that the tail spending could amount to as much as 40 percent or more of total expenditures.

According to Wyld, several characteristics or categories of tail spending must be considered in order to manage it. First, tail spending consists of low-dollar value, repeat acquisitions—typically procurements with a surprisingly large number of transactions. Second, tail spending includes acquisitions made outside of procurement norms that are rampant in noncompliance. These acquisitions also are known as maverick spending.

Third, tail spending consists of fragmented acquisitions—typically repeat procurements in various parts of an organization. Generally, these types of procurements could be consolidated into a single acquisition within an organization’s core spending. Other characteristics of tail spending include duplicative, overlapping or misclassified procurements, and unaddressed or unknown spending. In the DoD context, these characteristics generally are associated with acquisitions valued below \$10 million because less attention is focused on these types of transactions.

One could argue that DoD already manages tail spending through its policies, regulations and statutes. Regulatory and statutory guidance such as the DoDI 5000.74 and Section 2330 of Title 10 of the United States Code (10 U.S.C 2330) clearly provide directives for acquisition professionals to conduct periodic spending analyses, leverage the use of category and portfolio management, and implement Service Requirement Review Boards (SRRBs) designed to manage spending associated with contracted services. However, these methods are specific to core spending, which consequently allows acquisition professionals to create and define their own terms, concepts and methodologies associated with tail spend management. Since there is no clear guidance on managing tail spending and the DoD has delegated that management responsibility to the Service components, a lack of emphasis results in billions of dollars being potentially mismanaged or unmanaged.

To support that assessment, an analysis was conducted on the Defense Procurement and Acquisition Policy (DPAP), Fiscal Year 2015 (FY 2015) Inventory of Contracted Services (ICS) for the Department of the Army. The analysis excluded deobligated funding actions and actions that did not reference a dollar value. The results revealed that 68,670 contract actions accounted for approximately \$47 billion in total spending for contracted services. Of the 68,670 contract actions, 67,936 were under the \$10 million threshold and accounted for approximately \$25 billion of the overall \$47 billion in spending. Relative to TSM, the data suggests that the Army reflects a core/tail ratio of 47/53, which means that an astonishing 99 percent of the Army’s service contract actions account for 53 percent of the total spending for contracted services (tail spending). Conversely, the remaining 47 percent of total spending that is under spending management (core spending) only accounts for 1 percent of the total contract actions. In summary, 53 percent of the Army’s obligated dollars toward contracted services either are not formally managed or are mismanaged due to a lack of emphasis on tail spending management.

The Director of the Portfolio Management Division for the Office of the Senior Services Manager of the Deputy Assistant Secretary of the Army (Procurement), provided the additional insight that approximately 60 percent of the Army’s appropriated funds are obligated toward contracted services. And of the 60 percent of appropriated funds for contracted services, 70 percent is projected for obligation toward Service Category

V (S-CAT V) requirements, which are acquisitions below the \$10 million threshold. This information suggests a growing concern and need for tail spending management given that tail spending is projected to exceed the 53 percent of tail spending identified in the analysis of the Department of the Army FY 2015 ICS.

Analyses were also conducted on the FY 2015 ICS for the other Service components within DoD, including the Navy, Air Force, and other defense agencies. The analyses yielded results similar to the Army in that 99 percent of the contract actions for each component were not under spending management; however, the core/tail ratios between the components did show considerable variation. The Department of the Navy reflected a core/tail ratio of 36/61, the Department of the Air Force reflected a core/tail ratio of 56/44, and all other defense agencies reflected a combined core/tail ratio of 61/39. DoD as a whole reflected an average core/tail of 50/50, which suggests that if greater attention were given to managing tail spending—the 50 percent of the total spending of contracted services that are procured below the \$10 million threshold—the DoD could save billions of dollars. If this is not done, the DoD is likely to see a continued increase in total spending for contracted services, which inevitably will cause the spending gap between major defense acquisition systems and contracted services to widen further still.

There are three benefits that would allow DoD to realize an immediate return on investment if TSM were implemented. First, according to the Defense Business Board, an estimated \$36 billion in cost savings has been identified as an incentive to effectively manage contracted services. Andrew Bartolini, Supply Management Expert for Ardent Partners, noted in the SAP business strategy blog and podcast that organizations generally save between 6 percent and 12 percent of every dollar brought under spending management during the first contract cycle (SAP, *Future of Procurement-Tail Spend*, 2015). These potential cost savings could be repurposed to further technological advances for major weapon systems, modernization efforts and operational contractor support capabilities.

Second, implementing TSM will reduce or eliminate fragmented, maverick, duplicative, overlapping, and misclassified procurements. It also will eliminate unaddressed and unknown spending. Addressing these categories would uncover the root causes of increased spending, which would subsequently improve operational performance and procurement compliance (Government Accountability Office, *2016 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap and Duplication and Achieve Other Financial Benefits* (GAO-16-375SP); Wyld, 2013).

Third, implementing TSM for contracted services would assist government officials to more accurately address strategic workforce planning. Research suggests a correlation between increased spending for contracted services and the DoD skilled-workforce mix (Government Accountability Of-

fice, *High-Risk Series: An Update* (GAO-15-290), 2015; Eaglen, 2016;). According to Eaglen, the increase of service contractors within the DoD has nearly outpaced the total DoD workforce additions over the last decade, which may cause some speculation about waste, fraud and abuse. However, given the current operational environment associated with national security threats, the increase may be justifiable. For example, Lt. Gen. Michael Williamson, former Principal Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology, stated at the 2015 Royal United Services Institute Land Warfare Conference that since the American Revolution the ratio of contractors on the battlefield relative to the number of active soldiers has increased from 1:6 to 1:1 because contracted services have become an integral part of mission success, especially in an operational environment. He further explained the political implications associated with the ratio of contractor and military personnel and the significant capabilities leveraged such as those associated with pilots, linguists and armed security. The data obtained through TSM will support government and military officials by allowing them to strategically align, reallocate, or increase contractor support resources and capabilities for critical missions.

There are three recommended actions to successfully implement TSM:

- (1) DoD should generate acquisition workforce awareness about the concept. This ensures total buy-in of its use and benefits of successful implementation.
- (2) DoD should consider amending DoDI 5000.74 to include and define the concepts and terms associated with TSM and provide concrete guidance on effective identification, management and control of tail spending. The concepts and use of TSM also should be incorporated into the Better Buying Power initiatives issued by the former Under Secretary of Defense for Acquisition, Technology, and Logistics.
- (3) Finally, DoD should establish dedicated resources to manage tail spending or assign responsibilities to current resources that perform similar duties. This encourages continuity and accountability for reporting purposes.

In conclusion, numerous DoD benefits could accrue from giving greater focus to TSM. This is not to suggest that all efforts related to core spending should diminish. However, a paradigm shift in spending management likely would save the DoD billions of dollars. The savings could be leveraged to promote technological advances for major weapons systems, modernization and operational contractor support for the warfighter. Any effort that contributes to saving soldiers' lives, and ensuring that we acquire the best warfighting capabilities to achieve and maintain dominance, is worth the investment. We owe it to ourselves, the warfighter, and our nation to ensure that every dollar is spent effectively and professionally. 

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Special Ops AT&L Gets FITT

Susan Griffin

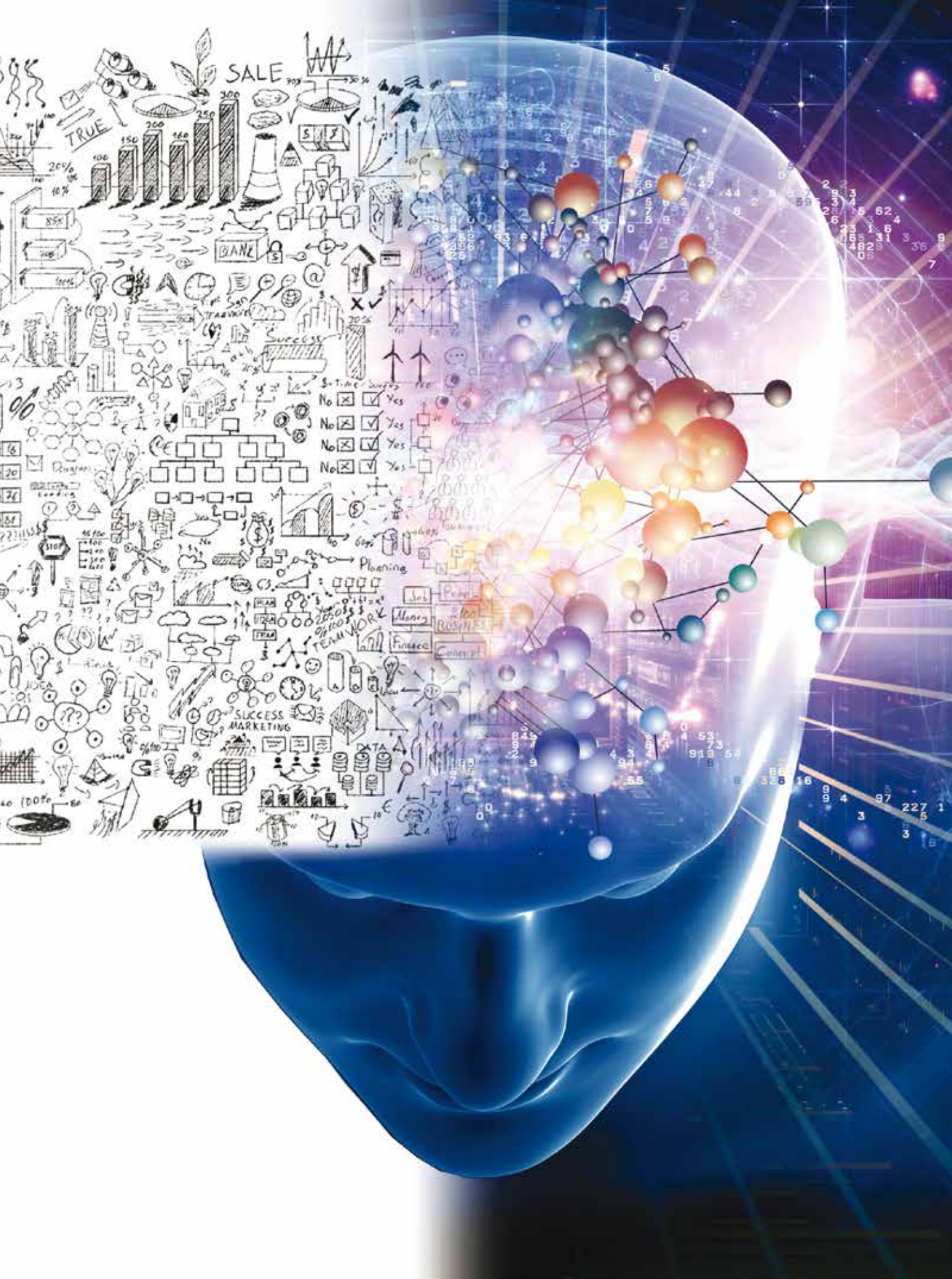
The Special Operations Forces Acquisition, Technology and Logistics (SOF AT&L) Training and Leader Development Team, known as the Pathfinders, includes volunteers from across the organization. The team's purpose is to deliver SOF-unique AT&L training to the workforce to augment training and education provided by the Service and the Defense Acquisition University. The team uses a closed-loop process to assess proficiency, plan training, prepare trainers, execute classes and gather feedback to restart the loop.

SOF AT&L's envisions becoming the recognized expert and trusted provider that equips and sustains SOF and that has a mission to improve competitive processes and fundamental competencies in source-selection activities. To that end, the Center has invested substantially in training its workforce to improve communications with industry—specifically, through developing Request for Proposals (RFPs) instructions and evaluation criteria while defining best value.

Anyone who has ever been involved in preparing a proposal in response to a government solicitation knows that an RFP's Section L and M contain the most coveted pieces of information for the offeror—the details for the proposal submission—and defines how the government will evaluate, weight, rate and eventually award a proposal. A well-written RFP consistent with the requirements documents is of absolutely critical importance to source-selection success.

The SOF AT&L mission-tasking letter challenges acquisition professionals to define clear requirements and evaluation factors through statements of work and speci-

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cations; maintain effective and transparent communication with industry; and select the best proposal through clearly understandable solicitation and disciplined source-selection activities, discussions and negotiations. The Pathfinders were to develop a strategy that would satisfy the need of Program Executive Officers (PEOs) and Directors for greater SOF Acquirers competence in source selection. This was to focus on developing communicable and meaningful (non-cost or past performance) evaluation criteria to facilitate competitive source selections from industry.

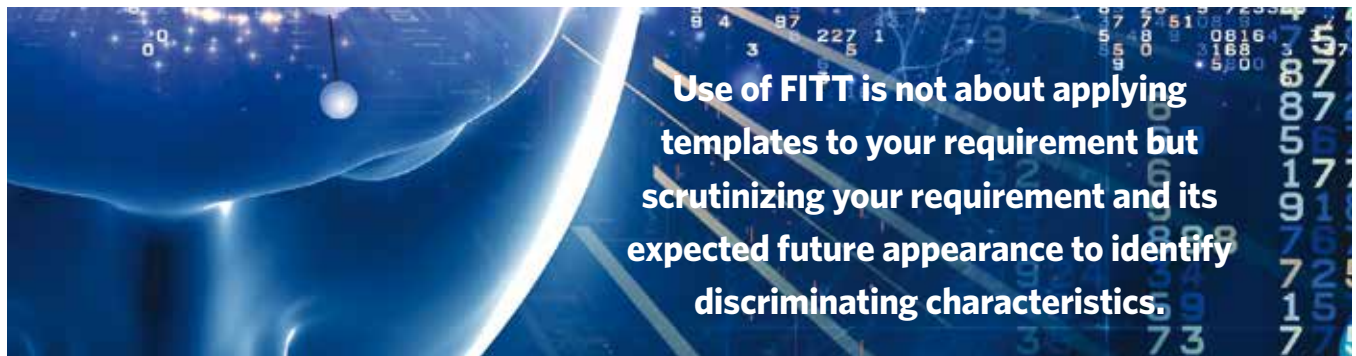
Development of the Pathfinders training concept started with drawings and sketches on a dry-erase board that eventually led to a multisession, multiphased approach on how to think about best value. This allowed participants to think through the requirements development process and the actual RFP

Sniper Rifle (PSR). FITT was executed in four phases with a series of briefings, industry involvement, and interactive team exercises.

Phase I—Thinking forward:

What does Blue (and Purple, Green, Yellow, Red) look like?

During Phase I of the FITT training, acquisition professionals reviewed their assigned Procurement Request Package (PRP). The HPP team used excerpts from the Performance Work Statement (PWS), Market Research Report, Acquisition Plan, and Milestone Schedule to transform the DoD Source Selection Procedures Technical/Risk rating color scheme definitions into expected proposal descriptions. In short, professionals went through an intense practical exercise to develop standards in order to answer the question, “What does a Blue proposal look like?”—as well as Purple, Green, Yellow, and Red



development and consider how the results of those documents would look in the future. The training basically asked: What does “Best Value” look like? This approach is known as Forward Innovative Thinking Techniques (FITT).

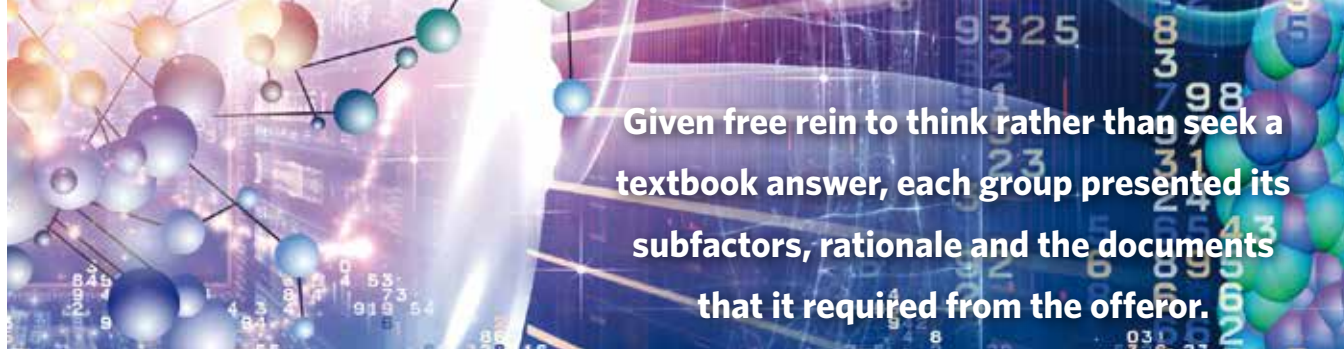
As with all Pathfinders training, the development of the FITT training came from within the Center—a combination of strategies and techniques used by SOF AT&L source selection subject-matter experts (SMEs) pulled together to demonstrate how to think when preparing the required documentation. FITT are used to identify and assess existing requirements and consider them under future circumstances—i.e., a source-selection evaluation board environment. Use of FITT is not about applying templates to your requirement, but scrutinizing your requirement and its expected future appearance to identify discriminating characteristics. Worksheets were created to lead acquisition professionals through this forward-thinking approach and capture those identified characteristics.

Pathfinders and SMEs packaged FITT to train SOF AT&L under both a Service requirement and a Product/Hardware requirement. Two training classes were presented simultaneously with acquisition professionals attending the class most closely aligned to their PEO’s/Directorate’s mission area. Four SMEs were handpicked to collaborate, develop, lead and facilitate the FITT training. The Service requirement replicated the Human Performance Program (HPP) while the Product FITT Lead developed a mock procurement request package for a Precision

proposals. This was not a new technique to HPP. The HPP team went through the same drill years earlier when HPP was being competed. Then Acquisition Executive James Cluck asked the team the same question about the colors to help them understand what constituted a “best value” proposal.

The PSR team used a mock PRP to assess the requirements and examine the market research data to determine discriminating criteria. The class was led through a review of the market research data showing the differing industry responses to the requirements characteristics and what swept through the room could only be described as an “ah ha” moment when people came to understand how to determine which requirements were truly the discriminating criteria. Many times an Acquisition Team wants to evaluate everything in the PWS because everything is important, but that is an unreasonable and unnecessary approach. The training really demonstrated how participants can think through the data from industry and home in on those differences that distinguish one requirement characteristic from another, one product from another, and discover what can be achieved by listening to industry.

At the end of Phase I training, acquisition professionals left with an understanding of how to identify discriminating criteria and a semi-complete FITT Worksheet, which documented the Acquisition Team’s agreement of what the future’s Blue (or Purple, Green, Yellow, or Red) proposal would look like.



Given free rein to think rather than seek a textbook answer, each group presented its subfactors, rationale and the documents that it required from the offeror.

Phase II—Thinking forward:

What are the significant aspects (i.e., factors and potentially subfactors) of the requirement—and why are they important?

Using the FITT Worksheets developed during Phase I, acquisition professionals attended Phase II training prepared to discuss and wrestle with three questions: What evaluation subfactors should you have and why? What are you trying to determine from those subfactors? What documents/information should you request from offerors to achieve that determination? Within their respective rooms, both the HPP and PSR teams divided into multiple small groups. Each group emphasized the importance of the team approach to evaluating criteria by including a mix of program managers, contracting officers and specialists, and logisticians.

Given free rein to think rather than seek a textbook answer, each group presented its subfactors, rationale and the documents that it required from the offeror. Discussions were dynamic in both rooms as groups advocated for their answer. Afterward, groups were told that there were no wrong answers. They also were told to prepare for Phase III FITT Training, in which they would actually transform their completed FITT Worksheet into a formal Section L and M—and that industry representatives would critique their work.

At the end of Phase II training, acquisition professionals understood how to create the framework for meaningful discriminating criteria that could be used in performing evaluations—and how to determine the documents and/or instructions needed for submitted proposals.

Phase III—Thinking forward:

How will industry respond? Will industry understand what is important to the government and/or recognize the government's best value description?

FITT Phase III training was conducted in two parts: Phase IIIA included small group exercises and Phase IIIB was a single session industry day. FITT Phase IIIA allowed acquisition professionals to go through practical exercises of communicating in writing their developed factors, criteria and proposal submission instructions. Groups were instructed to apply their completed FITT Worksheet developed in Phase II to write a Section L and M for the RFP. The FITT Worksheet kept participants focused on critical requirement characteristics (discriminating criteria) and repeatedly reminded them of the importance of those characteristics in obtaining best value.

The Special Operations Command small business director coordinated with four local industry representatives of both small and large businesses to review the Sections L and M from both the HPP training class and the PSR training class. Phase IIIB was an open forum active discussion between industry representatives and the government—with industry driving the conversation and explaining, “Based on what you’ve written in Section L and M, this is what your best value looks like to me.” This was a great forum for different industry partners to collaboratively speak openly in a nonthreatening environment to SOF acquisition professionals, who were interested to see how the government’s words on paper would direct events in the absence of any accompanying spoken communication, instruction or question-and-answer period. Industry partners also explained their approach and extensive efforts in responding to an RFP.

Phase IV—Thinking forward:

What will the SOF operator receive?

The opportunity to obtain real experience by participating in a source selection is driven by a PEO or Directorate and the program and/or project being supported. The FITT Phase IV training was the grand finale: proposal evaluation. Given the actual solicitation and using, with permission, the actual proposals received in response to HPP, acquisition professionals evaluated the proposals by applying the RFP Section M criteria and identified proposal strengths, weaknesses, significant weaknesses, and/or deficiency findings. Using a mock proposal, the PSR groups did much the same thing. Groups then vetted and deliberated findings to form a consensus on findings and determine proposal color ratings. Since the FITT Worksheets developed in Phase I documented the Acquisition Team’s agreement of what the future’s Blue (or Purple, Green, Yellow, or Red) proposal would be, this was particularly helpful in ensuring proper assignment of the colors.

FITT was introduced to train the SOF AT&L workforce in the art of thinking forward in a source-selection environment and to provide SMEs a tool for mentoring future source-selection evaluation boards. As SOF requirements are defined and frameworks are built, acquisition professionals are challenged to think forward about what that Blue (and Purple, Green, Yellow, Red) proposal looks like, to determine the significant aspects of the requirement and to understand the importance of their roles. SOF AT&L is committed to getting FITT by strengthening communications with industry while getting the “Best Value” for the SOF operator. 

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Sustaining Afghan Air Power

Make, Buy or Both?

*Lt Col Matthew A. Douglas, USAF, Ph.D.
Lt Col William C. Kossick, USAF*

The Afghanistan Air Force (AAF) is a fledgling organization that provides critical capability to the Afghan government in fighting the ongoing insurgency. Deliberate efforts to rebuild the AAF began in the recent past, and the AAF has just received an influx of technology and associated capability from the United States, including multiple “new” aircraft platforms such as the C-130, MD-530, and A-29.

The AAF has no previous sustainment experience on these airframes, and currently little human capital with the qualifications to sustain these aircraft. Therefore, AAF maintenance and logistics capabilities on these platforms are nascent and currently require a high level of contractor logistics support (CLS).

CLS provides the AAF with the necessary maintenance and logistics support to safely operate assigned aircraft, as well as training and mentorship for AAF personnel. In essence, CLS contractors are simultaneously responsible

Douglas is an assistant professor at the Air Force Institute of Technology recently deployed as an adviser to the Afghanistan Air Force (AAF) in Kabul. **Kossick** is the deputy commander, 515th Air Mobility Operations Group at Yokota Air Base, Japan, and is currently deployed as an adviser to the AAF in Kabul.



for sustaining the AAF fleet and building AAF capacity so that one day the aircraft sustainment enterprise can be transitioned to the AAF. Efforts are ongoing to transition the sustainment workload to the AAF, particularly on legacy platforms (i.e., Mi-17, C-208). However, difficulties with transitioning capabilities to the AAF, combined with evolving capabilities and changing aircraft mission roles, require CLS to remain high for the foreseeable future. The current level of effort may be sustainable in the short term but it is not likely to be operationally, fiscally, or politically feasible in the long term. Therefore, to ensure future sustainment of the AAF fleet, the Coalition must balance its effort and resources on developing (“making”) and providing (“buying”) AAF aviation sustainment capability.

How does the Coalition determine the appropriate balance between “make” and “buy” to achieve an end state that is economical, results in no degradation of

the AAF’s operational performance, and in which the AAF is primarily responsible for fleet sustainment? A perfect cost-benefit solution cannot be developed in the current environment. However, we posit that if the Coalition takes a more deliberate, strategic approach to structure and monitor the CLS effort and AAF capabilities, long-term sustainment of the AAF fleet will be more efficient and effective.

Complex, Uncertain Work Environment

The CLS concept provides a high level of aircraft availability, capability and flexibility, but at a high price. The programmed budget for AAF CLS is more than \$700 million annually. This budget supports at least one major contract per airframe. Because of constantly changing operational requirements, continued fleet growth, and an evolving AAF mission set, some airframes require upward of three different CLS contracts to fully support operations and training. These issues

At this stage, and for the foreseeable future, we recommend the U.S. and its Coalition partners “make” and “buy” AAF sustainment.

of their jobs. Moreover, educational requirements limit the available talent pool. An officer class of 100 students is usually drawn from a pool of 2,000 or more candidates. Many of those 100 officer candidates will end up serving as pilots. This lack of human capital for important technical fields creates gaps in capability, and lengthens the transition in these areas.

From a contractual perspective, transition can be difficult to define, measure, and achieve, particularly as sustainment is provided via multiple contracts with multiple contractors (and subcontractors) under the oversight of multiple out-of-country program management offices. No single coordinating mechanism exists across contracts, and fragmented contracts produce sub-optimal solutions. For example, boundary spanning aviation maintenance functions such as back-shop maintenance and production control are embedded in each contract and are operated as separate efforts across airframes, increasing CLS overhead and duplicating capabilities. Moreover, contract dates and periods of performance are not aligned across airframes (or oftentimes within airframes). See Figure 1 for the current state of CLS contracts.

result in a fragmented approach to aviation maintenance and logistics sustainment, training, and, ultimately, transition of capabilities to the AAF.

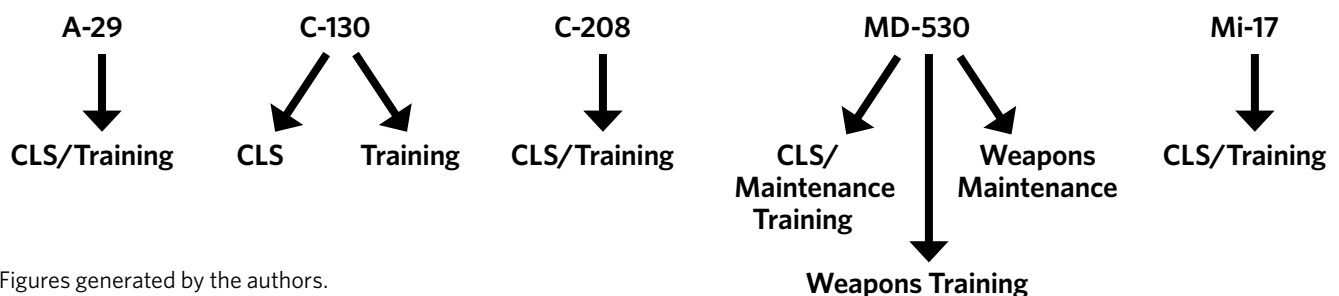
The current aviation sustainment approach is a byproduct of an incredibly dynamic and complex context. The current effort is akin to building an aircraft in flight, while it is getting shot at. Challenges abound in Afghanistan, and compounding issues have made it difficult to train and transition aviation maintenance and logistics capability to the AAF. Recent budget reductions have put additional pressure on the enterprise, providing more impetus for Coalition forces and CLS contractors to train and transition capabilities faster. However, cultural, contractual and mission-related challenges often hinder progress.

For example, from a cultural perspective, educational requirements for technical career fields can create challenges. Dari is not a technical language, and technical orders and manuals for current weapon systems are written in English, requiring Afghan technicians to attend English language training. This training limits the time personnel spend learning the technical aspects

Beyond the overall contractual structure, one can argue that CLS contractors are not incentivized to work themselves out of a job. Few incentives are built into contracts to ensure CLS contractors take on the requisite training and mentorship role aimed at transitioning capability to the AAF and reducing the CLS foot print. Conflicting objectives and priorities regarding current operations and training create tension between the AAF, CLS contractors, and Coalition advisers, sometimes resulting in tenuous relationships that can potentially impact contract execution, mission accomplishment, and transition.

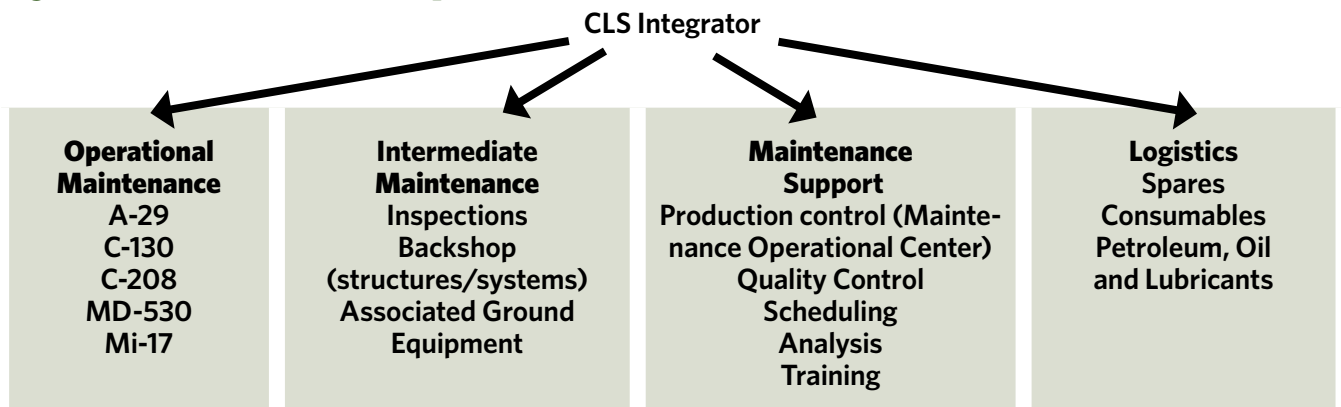
A final challenge results from the lack of a clearly established mission end state. The Coalition does not know how much longer it will stay in Afghanistan, and to what end. Further amplifying the “end state” issues, the Coalition continually provides a sustainment backstop when things start to go awry, and our AAF counterparts are conditioned to know that we are not going to let their mission fail. This approach reduces AAF accountability and creates more difficulty in transitioning capabilities. Considering the current complex environment,

Figure 1. CLS Contracts (Current State)



Figures generated by the authors.

Figure 2. CLS Contracts (Proposed Future State)



issues need to be addressed and contracts developed using a realistic, performance-based approach.

AAF Sustainment = CLS Forever?

Performance-based logistics (PBL) may provide a solid framework to create an aviation sustainment approach that synergizes AAF and CLS capability to produce a more cost-effective, efficient sustainment enterprise. In short, PBL is designed to optimize system availability while minimizing cost and logistics footprint. This collaborative approach requires long-term relationships between organizations, a shared vision, and collectively developed objectives.

Given the background, and the desire to reduce redundancy and overhead with an appropriately scoped CLS effort, we offer two main recommendations that are grounded in the PBL framework and drive the pursuit of a proper balance of CLS and AAF capabilities. At this stage, and for the foreseeable future, we recommend that the United States and its Coalition partners “make” and “buy” AAF sustainment. However, in doing so, we recommend restructuring the contract mechanisms and implementing a deliberate transition approach.

Contract structure: a consolidated approach. Our first recommendation is to consolidate all CLS contracts into a single firm-fixed price contract that represents a functional organizational structure (Figure 2). A consolidated contract will reduce CLS overhead, reduce inefficient use of capability across platforms, and potentially synergize training efforts across platforms. A CLS (or product support) integrator would provide top-level program management for the CLS effort. This integrator would also be the primary liaison with AAF leadership and Coalition advisers. Note that the intermediate, maintenance support, and logistics subcontractors would simultaneously provide support across all AAF airframes.

To achieve a balance of AAF and CLS capabilities, one must recall that CLS contractors currently work with competing interests. On one hand, they are required to maintain a certain level of operational performance (e.g., mission capable rate). On the other hand, they are required to meet training

requirements. Training requirements can reduce operational performance. However, initiatives can be put in place to ensure CLS contractors are not penalized for training AAF personnel. For example, nonreportable time is used to track aircraft status when the AAF is primarily performing maintenance tasks or training.

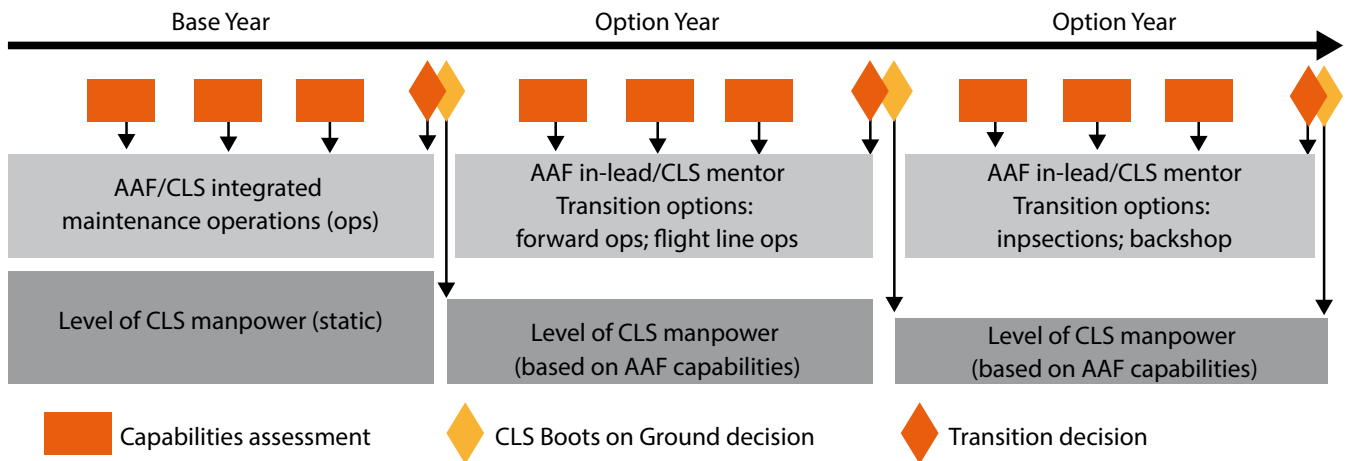
Another initiative speaks to longer term transition goals. Future contracts should include incentive fees that motivate CLS contractors to transition capabilities and reduce contract scope. Overall, restructured contracts with the appropriate mechanisms and incentives to encourage capabilities transition could optimize fleet availability while reducing the CLS sustainment footprint and cost. However, this goal cannot be accomplished without a complementary transition approach.

Transition approach: disciplined assessment paramount.

Our second recommendation is to develop a broad-based, flexible transition approach to train AAF maintenance and logistics personnel and thusly transfer capabilities to the AAF. This approach must be reflected in contract performance work statements as a required task and utilized across airframes and functions to ensure standardization of effort. Given the current lack of a defined end state, and the different levels of AAF capabilities across airframes and functions, this approach is not based on any specific timeline (e.g., a 5-year plan). Strategic time-based transition objectives are difficult to set within limited contractual periods of performance. Therefore, the recommended transition approach is based on a battle rhythm of capabilities assessment across the airframes and supporting functions in order to make CLS scope decisions at predetermined intervals.

As can be seen in Figure 3, the notional transition approach is designed to transition various capabilities over time. We recommend transfer of lower-level organizational-level maintenance activities first, such as forward operations and flight-line maintenance. CLS can then focus efforts on transitioning more involved capabilities such as scheduled inspections, back-shop maintenance, and so forth. Some higher-level capabilities such as production control, quality control and logistics management are not recommended to be transitioned in the near term, or perhaps ever.

Figure 3. Notional Transition Approach



The CLS integrator is tasked with transition oversight, and should take a holistic view of AAF capabilities. Capability transition will vary by airframe. Therefore, transition decisions for the different airframes and functions must be tracked and managed separately. "Tactical" transition timelines (within periods of performance) can be tracked as objectives, though these timelines will likely require adaptation over time, based on AAF progress.

Any transition approach will be ineffective without proper personnel management. Therefore, we recommend the AAF, advisers and contractors develop and maintain a consistent baseline understanding of AAF personnel authorizations, assignments and qualifications. Personnel trained in a specific career field should be assigned to positions that match their qualifications. Training programs must be built and monitored to ensure appropriate levels of human capital are consistently available to fill personnel billets. Finally, detailed personnel, training and qualification information (standardized across all sustainment functions) must be tracked and reported on a monthly basis.

Monthly assessments can be aggregated into quarterly capabilities assessments as depicted in Figure 3, allowing decision makers to adjust training programs to meet transition objectives. A disciplined battle rhythm of AAF capabilities assessments puts a lot of impetus on the AAF, contractors, air advisers and program offices to maintain high situational awareness associated with personnel management and training programs. However, we posit this process is a solid way to achieve a collective understanding of the AAF's current capabilities and ensure timely decisions to achieve the appropriate balance between CLS and AAF efforts.

Finally, identifying relevant transition metrics has been difficult. Across airframes, capabilities and contract option years, transition goals will vary and often cannot feasibly be monitored or met. For this reason, we recommend that periodic assessment of personnel qualifications and organizational ca-

pabilities be made a contractual requirement. Assessments, combined with collectively established goals regarding capabilities development and transition, can implicitly ensure transition is actually taking place.

AAF Sustainment = CLS Forever, With Caveats!

The AAF is a growing organization, both in size and capability. Much more work remains to build the AAF into a professional, capable and sustainable organization. We believe that, over time, and with a deliberate approach, we can overcome some of the challenges associated with this complex environment and make progress to this end. The recommended approach (grounded in PBL) relies on long-term, solid partnerships between the AAF, Coalition, program management offices, and CLS contractors. These partnerships, combined with restructured contracts, should result in collectively developed and aligned objectives concerning the balance between AAF and CLS capabilities. Furthermore, the total cost of AAF sustainment may decrease by incentivizing CLS contractors to transition capability to the AAF in a timely manner.

Advantages of approach: This approach, while unconventional, was conceived based on experience in the current environment and has advantages over generic time-based plans. We don't know what the future holds for Coalition involvement in Afghanistan. We suggest that this approach helps address this uncertainty by facilitating a smoother transition if Coalition forces are reduced to minimal levels with little notice. That is, a consolidated contract organized to reflect the AAF structure should be easier to transition, and coordination with a single CLS program manager will require less bandwidth for contract oversight.

The proposed transition approach also allows for flexible adjustment of CLS capability. For example, the AAF currently does not have enough human capital to fill some required maintenance training slots. Continuous assessment ensures enough CLS is on hand to fill capability gaps while the AAF

finds capable personnel to fill vacant positions. Assessment further allows organizations to make frequent human capital decisions before issues become crises.

Limitations of Approach: As with every approach, this one has some potential limitations. Is a single contract too big, creating an unmanageable span of control or single point of failure? The AAF is approximately the size of a large U.S. Air Force operational organization. One could argue that a single contract will actually decrease the required span of control by reducing redundancies. Will a single large contract also drive an increase in net cost, resulting in higher (i.e., congressional) oversight, reporting, and monitoring? This concern could be alleviated with multiple functional contracts, perhaps a single contract per function (Figure 2).

One final question: “Which program office would oversee and manage such a contract?” Admittedly, the answer is unknown, but we do know the program management function would require the capacity and capability to support a broad and diverse mission set. Additionally, the program management function would require an in-country presence with the ability to drive decisions and take action with onsite contracting officer representatives. Despite these limitations, we propose the recommended approach provides a solid vision for transi-

tion and enough flexibility to be adjusted when the situation on the ground changes.

A Win-Win-Win ...

The current situation in Afghanistan presents multiple challenges to developing the AAF into a professional, capable, and sustainable organization. We have argued that, for the foreseeable future, the Coalition should “make” and “buy” sustainment by balancing CLS and AAF capabilities. Make or buy decisions are usually primarily based on cost. However, in this situation, we must consider other factors. The recommended approach structures CLS contracts and transitions capabilities to the AAF flexibly enough to meet uncertain requirements in an uncertain environment.

Overall, the approach provides the AAF with the sustainment support and organic capability it needs, perhaps in a more efficient manner. At the same time, the CLS contractors are able to make some profit and are incentivized to continue to develop AAF sustainment capability. In this light, the approach could turn out to be a Win-Win-Win, for the AAF, Coalition and contractors, just as it was designed. &

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DEPARTMENT OF DEFENSE

Better Buying Power
Acquisition, Technology, and Logistics



2016



David Packard Excellence in Acquisition Award

The David Packard Excellence in Acquisition Award was established to recognize organizations, groups and teams that have demonstrated exemplary innovation using best acquisition practices that achieve acquisition excellence in the Department of Defense (DoD). It is the DoD's highest acquisition team award and was first awarded in 1997 in honor of David Packard, a former Deputy Secretary of Defense during the Nixon administration. Mr. Packard also was the co-founder and chairman of the Hewlett-Packard Co. and chairman of the President's Blue Ribbon Commission on Defense Management chartered by Ronald Reagan in 1985. He founded the Defense Systems Management College in 1971 and was a strong advocate of excellence in the defense acquisition practices.

The David Packard Excellence in Acquisition Award recognizes teams that have demonstrated superior program management and accomplishment in the successful execution of one or more of the Better Buying Power efficiencies and associated initiatives. The principles of acquisition excellence and exemplary innovation using the best acquisition practices remain fundamental to the Packard Award.

Three teams received David Packard Excellence in Acquisition awards, presented at a Jan. 6, 2017, Pentagon ceremony hosted by the Honorable Bob Work, Deputy Secretary of Defense.

Should Cost and Innovation Award

The Should Cost and Innovation Award, sponsored by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]), recognizes organizations, groups or teams that have displayed outstanding commitment, innovation and results from should cost management. The concept of should cost management is fundamental to proactive cost control throughout the acquisition life cycle. This initiative requires the active management of cost, starting with the deep understanding of cost structures, followed by identifying specific goals for cost reduction (should cost goals), and the efforts to achieve those cost reductions. Should cost is a core and enduring Better Buying Power initiative, and most programs and contracted activities in DoD now have should cost targets and are managing to them. One team received the DoD's Should-Cost and Innovation Award on Jan. 6.

Awardees' names are italicized.

2016 David Packard Award Winners



Project Manager Maneuver Ammunition Systems—Best in Acquisition

Left to right: Deputy Secretary of Defense (DSD) the Honorable Robert O. Work; Ms. Christine Thorton; Mr. William Sanville; COL Moises Gutierrez, U.S. Army; Ms. Stacy Poto; Mr. Frank Altamura; and Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]) the Honorable Frank Kendall.



Next Generation Jammer Increment 1 Team, PMA 234, Naval Air Systems Command

Left to right: DSD Work; Mr. Thomas D. Ball; Ms. Joanne M. Heilmeyer; Mr. Louis J. Kollar; CAPT John W. Bailey, U.S. Navy; Ms. Karen L. Caffery; Mr. Kyle W. Richmond; and USD Kendall.



United States Special Operations Command's Acquisition Rapid Response Light Tactical Vehicle Team

Left to right: DSD Work; Ms. Michelle Cames; Mr. Brendon Reedy; COL John Reim, U.S. Army; Mr. Timothy Woodall; Mr. Mike McGinnis; and USD Kendall.

2016 Should Cost and Innovation Award Winner



The Joint Program Office, Joint Light Tactical Vehicles

Left to right: DSD Work; Mr. Daniel Germony; Ms. Michelle Scott; Mr. Andrew Rodgers, U.S. Marine Corps; Mr. Michael Sprang; Mr. Shatiel Edwards; Mr. Scott Davis; USD Kendall.

U.S. Department of Defense photos by SGT Amber I. Smith, U.S. Army

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2016 Defense Acquisition Workforce **AWARDS**

The Defense Acquisition Workforce INDIVIDUAL ACHIEVEMENT AWARDS

The Defense Acquisition Workforce Individual Achievement and Workforce Development Awards highlight premier examples of individual excellence and outstanding organizational workforce quality initiatives. The Defense Acquisition Workforce Individual Achievement Award was established to recognize individuals who demonstrate the highest levels of excellence and professionalism in the acquisition of products and services for the Department of Defense (DoD). This program recognizes DoD military members and civilian personnel who represent the best in the acquisition workforce across several career fields, and is a key objective under Better Buying Power 3.0.

The Defense Acquisition Workforce DEVELOPMENT AWARDS

The Defense Acquisition Workforce Development Award was established to recognize those organizations that demonstrate the best of the best exemplary efforts to improve the qualifications and professionalism of the acquisition workforce. The awards focus on talent management, knowledge transfer, partnering, and sharing of workforce best practices, and workforce development and recognition initiatives.

USD(AT&L) Chairman's Award

This year's ceremony marked the first Chairman's Award for special merit and accomplishment. The Chairman's Award was established to recognize an individual who truly epitomizes an acquisition professional and provides an opportunity to publicly recognize significant accomplishments and contributions in acquisition to the DoD.

Photos and accomplishments of the winners will be on display in the Pentagon Defense Acquisition Workforce Wall of Recognition.

WORKFORCE INDIVIDUAL AWARD WINNERS



↑ Requirements Management

Above, from the left, The Honorable Frank Kendall, Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]); award winner Mr. Andrew Yee, U.S. Special Operations Command (USSOCOM); The Honorable Robert Work, Deputy Secretary of Defense (DSD); and Gen Paul Selva, U.S. Air Force and Vice Chairman of the Joint Chiefs of Staff (VCJCS).



↑ Acquisition in an Expeditionary Environment

Above, from the left, USD Kendall; James Geurts, accepting on behalf of Lt Col Bernie E. Beigh, USSOCOM; DSD Work; and Gen Selva, VCJCS.



↑ Auditing

Above, from the left, USD Kendall; Ms. Laura Michaels, Defense Contract Audit Agency; DSD Work; and Gen Selva, VCJCS.



↑ Contracting and Procurement

Above, from the left, USD Kendall; Ms. Polly A. McCall, U.S. Air Force; DSD Work; and Gen Selva, VCJCS.

Cost Estimating →

From the left, USD Kendall; Ms. Mary M. Mertz, Office of the Secretary of Defense; DSD Work; and Gen Selva, VCJCS.



Awardees' names are italicized.

DoD photos by E.J. Hersom and Dirke Williams.



← Earned Value Management

From the left, USD Kendall; Ms. Denise Kerby, Missile Defense Agency; DSD Work; and Gen Selva, VCJCS.

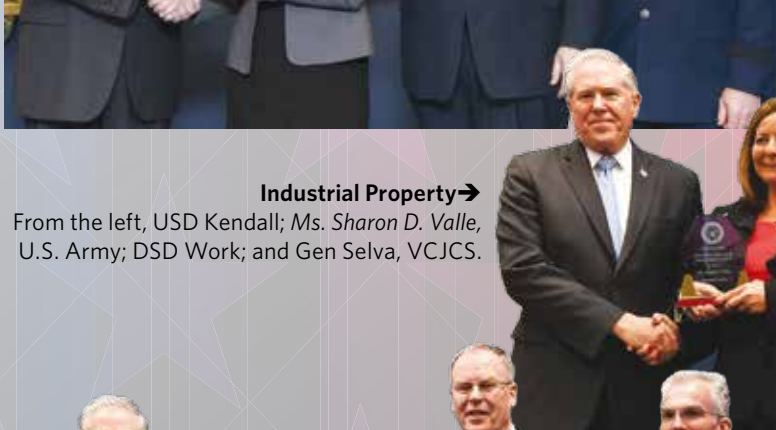
Engineering →

From the left, USD Kendall; Mr. Paul Manz, U.S. Army; DSD Work; and Gen Selva, VCJCS.



← Financial Management

From the left, USD Kendall; Ms. Denise Mallett, U.S. Navy; DSD Work; and Gen Selva, VCJCS.



Industrial Property →

From the left, USD Kendall; Ms. Sharon D. Valle, U.S. Army; DSD Work; and Gen Selva, VCJCS.



← Information Technology

From the left, USD Kendall; Ms. Jacki A. Garner, U.S. Army; DSD Work; and Gen Selva, VCJCS.



Life Cycle Logistics →

From the left, USD Kendall; Lt Col Kelly L. Polsgrove, U.S. Air Force; DSD Work; and Gen Selva, VCJCS.



WORKFORCE INDIVIDUAL AWARD WINNERS

Production, Quality and Manufacturing→

From the left,
USD Kendall;
CAPT Joseph M. Tuite,
U.S. Navy; DSD Work;
and Gen Selva, VCJCS.



←Program Management

From the left, USD Kendall; *Mr. Robert R. Hurd, Jr.*, USSOCOM;
DSD Work; and Gen Selva, VCJCS.



Science and Technology Manager→

From the left, USD Kendall; *Mr. Matthew Meining*, U.S. Air Force;
DSD Work; and Gen Selva, VCJCS.



←Services Acquisition

From the left, USD Kendall; *Ms. Ashley M. Farrier*,
USSOCOM; DSD Work; and Gen Selva, VCJCS.



Small Business→

From the left, USD Kendall; *Mr. Christopher A. Harrington*,
USSOCOM; DSD Work; and Gen Selva, VCJCS.



←Test and Evaluation

From the left, *Mr. Kendall*; *Mr. Scott Wilson*, Missile Defense
Agency; *Mr. Work*; and Gen Selva, VCJCS.

USD(AT&L) CHAIRMAN'S AWARD



From the left, USD Kendall; CAPT John Bailey, U.S. Navy; Gen Selva, VCJCS; and DSD Work.

WORKFORCE DEVELOPMENT AWARD WINNERS



↑Gold Winner (Large Organization)

431st Supply Chain Management Squadron Air Force Materiel Command
U.S. Air Force, Tinker Air Force Base, Oklahoma
From the left, USD Kendall; Mr. Craig Pollock; Ms. Mandy Whitaker; Mr. Bill Sirmon; Mr. Kevin Ervin; DSD Work; and Gen Selva, VCJCS.

↑Silver Winner (Large Organization)

Army Contracting Command
U.S. Army, Warren, Michigan
From the left, USD Kendall; Ms. Kimberlee Menzel; Mr. John Jolokai; DSD Work; and Gen Selva, VCJCS.

Bronze Winner (Large Organization)→

Defense Contract Audit Agency
Fort Belvoir, Virginia
From the left, USD Kendall; Mr. Billy McLeod; Ms. Maureen Higgins; DSD Work; and Gen Selva, VCJCS.



WORKFORCE DEVELOPMENT AWARD WINNERS



↑ Gold Winner (Small Organization)

Resource Management Division, Contracting Directorate
Air Force Life Cycle Management Center, U.S. Air Force
Wright-Patterson Air Force Base, Ohio

From the left, USD Kendall; Mr. Thomas D. Robinson; Ms. Tessy Smith; Ms. Dorothy Febbi;
Ms. Sharon Lovelace (back); Mr. Alex Hight; DSD Work; and Gen Selva, VCJCS.



← Silver Winner (Small Organization)

Airborne Anti-Submarine
Warfare Systems
Engineering Division,
Aircraft Division 4.5.14
U.S. Navy

Patuxent River, Maryland
From the left, USD Kendall;
Mr. Luis Fortuño; Dr. Mary
Eileen Farrell; Ms. Karen Frech;
Mr. John Joseph; DSD Work;
and Gen Selva, VCJCS.

Bronze Winner (Small Organization) →

Special Operations Forces
Acquisition, Technology,
and Logistics, USSOCOM,
MacDill Air Force Base,
Florida

From the left, USD Kendall;
Mr. James Geurts;
SGM Richard Holman;
COL John Reim; DSD Work;
and Gen Selva, VCJCS.



Defense AT&L

Writers' Guidelines in Brief

Purpose

Defense AT&L is a bimonthly magazine published by DAU Press, Defense Acquisition University, for senior military personnel, civilians, defense contractors and defense industry professionals in program management and the acquisition, technology and logistics workforce.

Submission Procedures

Submit articles by e-mail to datl@dau.mil. Submissions must include each author's name, mailing address, office phone number, e-mail address, and brief biographical statement. Each must also be accompanied by a copyright release. For each article submitted, please include three to four keywords that can be used to facilitate Web and data base searches.

Receipt of your submission will be acknowledged in 5 working days. You will be notified of our publication decision in 2 to 3 weeks. All decisions are final.

Deadlines

Note: If the magazine fills up before the author deadline, submissions are considered for the following issue.

Issue	Author Deadline
January-February	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

Audience

Defense AT&L readers are mainly acquisition professionals serving in career positions covered by the Defense Acquisition Workforce Improvement Act (DAWIA) or industry equivalent.

Style

Defense AT&L prints feature stories focusing on real people and events. The magazine seeks articles that reflect author experiences in and thoughts about acquisition rather than pages of researched information. Articles should discuss the individual's experience with problems and solutions in acquisition, contracting, logistics, or program management, or with emerging trends.

The magazine does not print academic papers; fact sheets; technical papers; white papers; or articles with footnotes, endnotes, or references. Manuscripts meeting any of those criteria are more suitable for DAU's journal, *Defense Acquisition Research Journal (ARJ)*.

Defense AT&L does not reprint from other publications. Please do not submit manuscripts that have appeared elsewhere. Defense AT&L does not publish endorsements of products for sale.

Length

Articles should be 1,500-2,500 words.

Format

Send submissions via e-mail as Microsoft Word attachments.

Graphics

Do not embed photographs or charts in the manuscript. Digital files of photos or graphics should be sent as e-mail attachments. **Each figure or chart must be saved as a separate file in the original software format in which it was created.**

TIF or JPEG files must have a resolution of 300 pixels per inch; enhanced resolutions are not acceptable; and images downloaded from the Web are not of adequate quality for reproduction. Detailed tables and charts are not accepted for publication because they will be illegible when reduced to fit at most one-third of a magazine page.

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Author Information

Contact and biographical information will be included with each article selected for publication. Please include the following information with your submission: name, position title, department, institution, address, phone number and e-mail address. Also, please supply a short biographical statement, not to exceed 25 words. We do not print author bio photographs.

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