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Acquisition, Technology and Logistics

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Better Buying Power 3.0

Special Issue

Program Manager Assessments

Professionalism Personified

by the Under Secretary of Defense for Acquisition, Technology, and Logistics

Integrating Innovation

Keeping the Leading Edge

The Challenge of Technological Superiority

Removing Bureaucracy

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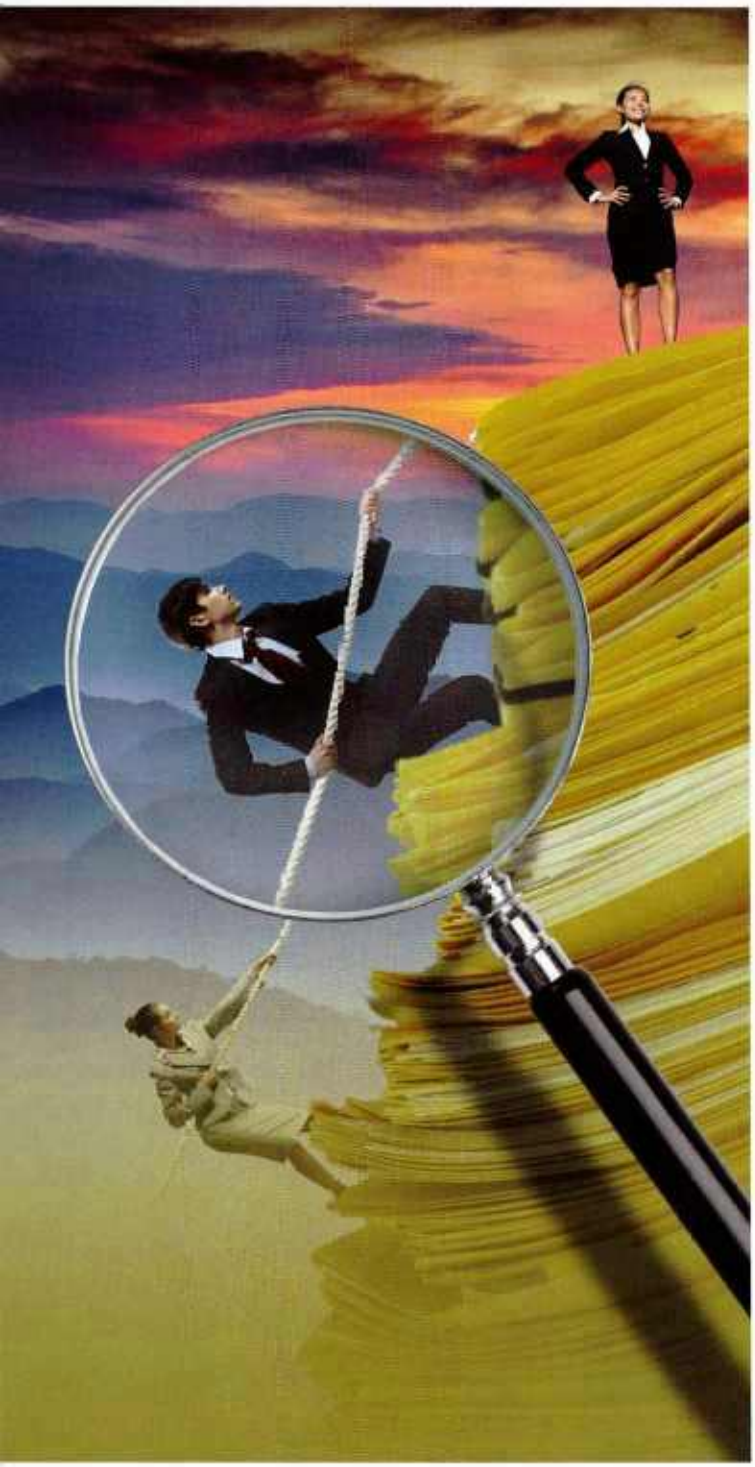
Program Manager Assessments

Professionalism Personified

Frank Kendall



A few months ago, I decided to ask all of our Acquisition Category I and Major Automated Information System (MAIS) program managers (PMs) to provide me with a one- to three-page assessment of the state of their programs. At the time, this was an experiment. From the feedback I received, most PMs were delighted to have this opportunity. I have incorporated these assessments into Better Buying Power (BBP) 3.0 as an activity that will continue on an annual basis. The assessments are intended to strengthen the role of the acquisition chain of command. The assessments are simultaneously sent to me, the Service or Component acquisition executive, and the program executive officer. It was, however, an experiment that seemed to make a lot of people nervous.

Some of the nervousness stemmed from concerns that I was putting the PMs in an awkward position, where they might fear that being too honest with me could jeopardize their program or get them into trouble with a senior stakeholder in the Service or on the Office of the Secretary of Defense (OSD) staff. I could understand this concern, and I hesitated briefly. However, one of the management principles I've picked up over the years (like the sign outside my door reading "In God We Trust, All Others Must Bring Data," this comes from W. Edwards

Deming) is that one must drive fear out of an organization to achieve success. No fear is more crippling or dysfunctional to an organization than fear of negative consequences of telling the truth. Close behind that is fear that a new idea will be dismissed or ridiculed. I decided that any institutional fear of the consequences of an honest assessment should not be appeased; it should be confronted.

There was also a concern, which I took more seriously, that the PM would have to obtain approval and go through multiple drafts and reviews before being allowed to send me an assessment. To overcome this concern, I required each PM to certify to me that no one had reviewed the PM's assessment in draft or final form. That seems to have been successful, although I expect I have caused some people to worry.

The results, from my perspective at least, have been terrific. I'm still working my way through roughly 150 assessments, but I've already learned a great deal about Department of Defense (DoD) programs and the people who are managing them. It was no surprise to me that the assessments have reflected the high degree of professionalism and dedication in our key leaders. I expected that. What I hadn't expected, but probably should have, was the window these documents provide into the many complex challenges our PMs face, and the creative and innovative ways they are dealing with those challenges. In this article, I would like to summarize some of the inputs I received. They say a great deal about the work we are doing—and how well we are doing it. I hope, with the permission of the writers, to publish a subset of these assessments soon, but here is a sampling without the names of the programs or PMs.

This PM has run into constraints from MAIS and DoD acquisition processes that have stymied modern software development best practices. This PM is trying to do the right thing, but we're getting in his way. He needs some help, and, because of his assessment, I plan to see that he gets it.

The cutting-edge weapon system; high-risk development: This assessment was probably the most impressive of the ones I have read to date. It was the smallest font the PM thought he could get away with, narrow margins, filled all three pages, and was packed with detail about the design, the technical issues and risks and what the PM was doing about them. It left me with no doubt that this PM was doing what Air Force Assistant Secretary Acquisition Bill LaPlante calls "owning the technical baseline." After a short overview of the program, the PM dug into the precise risks he is managing and mitigating. It wasn't quite a textbook or professional journal article on electrical engineering and systems engineering, but it was pretty close. One feature of this PM's approach that is noteworthy, and a program management or systems engineering best practice, was the use of knowledge points associated with each technical risk area. The use of actual test results at sub-scale, component testing, modeling, simulation, and field testing were all described in fair detail. Key near-term tests were highlighted. This is not a low-risk program, and there are numerous ways for this design to encounter problems before it matures, but the PM left me with the strong impression that he is on top of the risks and well positioned to deliver this critical product.

The legacy Command and Control (C2) system; incremental acquisition: This program is a large, complex C2 system that was built up over time from literally dozens of legacy systems. A few years ago, the idea of modernizing this collection in a "big bang" approach was rejected in favor of a lower-risk and lower-cost incremental approach (Model 2 of the new DoD Instruction 5000.02). The PM has the challenge of coordinating and managing numerous interfaces with systems that cannot go offline, while rebuilding part of this conglomeration of applications and supporting infrastructure with the government in the role of lead system integrator. A Service-Oriented Architecture is being implemented in sections as infrastructure and legacy programs are replaced. This PM is dealing with several builds of software in various stages of maturity, testing, and fielding. He also is dealing with the transition of DoD traditional information assurance approaches to the recently implemented Risk Management Framework. What this means on the ground is that the compliance measures have grown from about 100 to more than 400. At the same time, the PM is reacting to the "cyber shift left" and other recently published Operational Test and Evaluation cyber procedures. In attempting to implement Agile software development practices this

PM has run into constraints from MAIS and DoD acquisition processes that have stymied modern software development best practices. This PM is trying to do the right thing, but we're getting in his way. He needs some help, and, because of his assessment, I plan to see that he gets it.

The space; achieving stability: Our space systems generally have struggled to get through development and make the transition to production. This is often a challenging step in a product's life cycle, but space programs have a particularly troubled history. Over the last few years, several DoD satellite systems have made this transition with great difficulty and are now at relatively stable phases of their life cycles. This PM's program is no exception. Software and hardware issues caused major delays and overruns. These problems have been largely overcome and the program is in serial production for the space segment, but the PM has no shortage of challenges. The ground segment, an incremental software-intensive program, has lagged significantly and only now seems to be stabilizing. An aggressive team effort by government and industry has been required to deliver capability. The PM's assessment reflects the successful use of Earned Value and Software productivity metrics to identify problem areas early and focus effort on corrective actions. While the PM generously (as I see fairly often) gives earlier versions of BBP some credit for his corrective actions, I would prefer less drama in our programs and less need for corrective action in the first place.

Like many of our PMs, this one is managing several programs at once. In this case, they are various separable components of an integrated system. Each has its own prime contractor, its own business arrangements, its own technical challenges and its own place in the product life cycle.

The Commercial Off-the-Shelf (COTS) product; sustainment 20 years on: Most of the attention in the acquisition system falls on programs in development, where delays and overruns are most likely, but where the contributions to life-cycle cost are lowest. This PM is dealing with a platform that has been in the inventory for almost 20 years. It is nearing the end of production and was based on a COTS product. The program has myriad supply chain, aging, and obsolescence issues. Originally a Contractor Logistic Support for life of the program (acquisition reform circa late 1990s), the program has bounced back and forth between Federal Acquisition Regulation (FAR) Part 12 and FAR Part 15—ending up in Part 15. The program has moved to introduce competition for sustainment, but the PM continues to deal with high costs of spare parts and issues associated with the commercial design that has not stood up well to military use. Bad assumptions (commercial product, life-cycle support by the producer) that may have reduced cost up front are being paid for now. The PM is dealing with a supply chain that sources nearly 500,000 parts and sees more than 10,000 issues per month across the fielded systems. Moving to competition and standing up a new support contractor has been painful: Protests, claims, uncooperative suppliers, and intellectual property issues have all been problems. The PM has worked hard to understand the lessons learned from this experience and is preparing for the next round of competition. The bottom line: Sustainment is every bit as challenging as development. It demands attention to detail, strong leadership, tenacity, solid business acumen and innovation in dealing with support contractors.

What I find fascinating about all of these assessments is the complexity and scale of the problems described and the candor and depth of understanding demonstrated by the writers. They personify the professionalism we all have to continue building throughout our workforce. BBP 3.0 focuses on innovation, technical excellence and the importance of U.S. technological superiority, while continuing to build on our earlier efforts to control cost and to extract as much value as possible from the dollars the taxpayers provide us. None of these initiatives in any edition of BBP is more important than continuing to build the human capital that is responsible for the successful delivery of every product or service the DoD acquires.

I asked a number of senior people to provide articles for this edition of *Defense AT&L* magazine, but for my submission I wanted to highlight the contributions that our very talented and dedicated PMs, together with their staffs and supporting organizations, are providing to the department and the nation. Well done.

For more on Buying Power 3.0, please see: http://bbp.dau.mil/

Integrating Innovation

Keeping the Leading Edge

Kevin Fahey

From the Jeep to the Internet to GPS, there was a time when the U.S. military led the way in inventing technologies that would later become dominant in the general public.

Times have changed. Today, we more often see the opposite pattern—the commercial sector achieves the breakthrough, and the military adopts and adapts it to meet our requirements.

This reality means that our adversaries have access to many of the same technologies in the commercial marketplace that we do—without the hurdles that exist in our acquisition system. To maintain our superiority, our acquisition approach must be adaptive enough to enable rapid technology insertion, but also disciplined enough to ensure holistic interoperability once the systems are in warfighters' hands. Put simply, our challenge is to be the integrator among fast-moving innovators.

That framework is driving today's efforts in the Army acquisition community to set conditions for future success. Drawing on programmatic lessons learned and the tenets of Better Buying Power (BBP) 3.0, we are structuring processes and tailoring our acquisition methodologies to ensure we retain the leading edge.

Cyber Operations

Nowhere is the need for a proactive approach more pressing than in cybersecurity, where threats must be countered in hours rather than in months or years. While the Army cannot predict the future or design a "silver bullet"

Fahey *is executive director for System of Systems Engineering and Integration in the U.S. Army's office of the Assistant Secretary for Acquisition, Logistics and Technology. He is a member of the Senior Executive Service and previously was the Program Executive Officer for Combat Support and Combat Service Support and Program Executive Officer for Ground Combat Systems.*

to block all attacks, we are implementing a flexible strategy to adapt and change. Our goal is to bend the acquisition paradigm to meet cyber requirements, which will ensure that soldiers and systems are equipped to prevent, counter and recover from cyber attacks.

Cybersecurity and other cyber operations pose unique challenges that typically fall outside the normal process lines for requirements, acquisition and resourcing. For this reason, the Army is looking at optimizing existing processes in all three areas in order to be more responsive to cyber requirements and emerging threats while implementing EBP. We have worked diligently to streamline system updates, testing and certification processing to ensure that warfighting capabilities are resilient to the current cyber threat, and we are focused on keeping the edge through innovative approaches to technology insertions.

For example, the Assistant Secretary of the Army for Acquisition, Logistics and Technology, or (ASA[ALT]), is establishing a cyber industry consortium and utilizing the existing Army Venture Capital Initiative for market research to find companies with niche cyber capabilities that can be quickly transitioned to Army programs. Developmental pilot programs and Science and Technology initiatives also allow the ASA(ALT) to better define cyber requirements and identify technology that is adaptive to the ever-changing threat environment.

Commercial Innovation

As with cyber capabilities, information technology (IT) proliferates faster than traditional Army processes can keep up. As the Army continues to modernize its tactical communications network to enable a more agile and expeditionary force, we are leveraging commercial innovation to retain overmatch.

For example, we mimicked the in-flight Internet services provided by the major airlines by installing high-bandwidth antennas on C-17 aircraft, which will enable the Global Response Force to plan missions with uninterrupted voice, data and video connectivity from garrison to theater. Working in conjunction with the National Security Agency, we adapted the security software used for online shopping to deliver secure wireless and 4G LTE (Long Term Evolution) access inside Army command posts.

Commercial innovation also can be built directly into our contract structure. Just as today's smartphones undergo hardware refreshes every few years to support the newest operating system, Army radio hardware must evolve continuously in parallel with waveform software. With that in mind, the Army has implemented a competitive approach that aims to lower costs and deliver radios more quickly using Non-Developmental Item products. The strategy—grounded in BBP principles—includes frequent competitions among multiple vendors for mature radios that are compatible with government waveforms. This "radio marketplace" will drive innovation in areas like weight, power and battery life while maintaining interoperability between different vendor systems—allowing the Army to incrementally provide soldiers with better radios as these become available on the market.

But the need for agility goes beyond IT. The Joint Light Tactical Vehicle (JLTV), which will fill the gap between the legacy High Mobility Mutlipurpose Wheeled Vehicle ("Humvee") and the bulkier, less mobile Mine Resistant Ambush Protected (MRAP) vehicle, is using a commercial off-the-shelf-based acquisition strategy and adaptive approach to lower costs and incorporate improvements over the program's life cycle.

Among other applications of BBP, program managers incorporated mission command network integration into the early vehicle design. This will allow the Army to make future upgrades to the JLTV much more quickly and cheaply than the equivalent efforts today, when we find ourselves spending more on vehicle integration kits and power upgrades for communications systems than on the new systems themselves.

Standards Enable Future Solutions

The concept of planning for technology insertions early in a program's life cycle applies to both hardware and software. To set the conditions for future upgrades, the Army is putting in place the standards to enable "plug-and-play" insertion of new capabilities on existing platforms. Consistent with BBP, the creation of such standards encourages competition among a wide pool of potential competitors to lower the cost of integrated technology solutions. There are countless everyday examples of successful standards within which innovation can flourish, ranging from the consistent interfaces of the U.S. power grid to the largely open architecture of the Android mobile ecosystem.

The Army is actively pursuing standards on several fronts. We are moving to publish detailed guidance this year on how government and industry partners will comply with the Modular Open Systems Architecture, which outlines design principles and interface characteristics allowing for modular hardware

and software components to be removed and replaced easily, as needed. Compliance also is progressing with the VICTORY effort, in which the standards are aimed at commonality in electronic interfaces between vehicles and their systems for communications and electronic warfare. VICTORY, which stands for "Vehicle Integration for C4ISR/EW [Communications, Computers, Intelligence, Surveillance, Reconnaissance/Electronic Warfare] Interoperability," is replacing the "bolt-on" approach to fielding equipment on Army vehicles with a more strategic, open architecture approach that makes upgrades easier and more cost effective. Now transitioning into several platforms across the Army's vehicle fleet, the VICTORY architecture will improve integrated situational awareness for mounted soldiers while saving significant space, weight and power.

Standards for software also are moving forward with the phased implementation of the Common Operating Environment (COE). Reaching from mobile handhelds to the tactical cloud, the COE transforms how soldiers can access and share information on the battlefield. Not only does it provide a consistent user experience across different systems and devices—much like what soldiers see on their own smartphones, tablets and laptops at home—the COE also simplifies the way soldiers share information across systems and echelons. For example, the task of moving graphics from brigade to battalion to company down to a platoon leader previously required crossing at least three different systems, all with different designs and standards. That forces units to create workarounds that are often time-consuming and prone to user error. With the COE's "system of systems" interoperability standards, those barriers between echelons are eliminated, enabling a more seamless flow of information.

While the COE requires the Army to invest in improved infrastructure—such as high-performing servers that can do the work previously performed by multiple machines—the overall hardware footprint will significantly decrease as stovepiped mission command systems are replaced by integrated web applications. These apps will share the same map engine, chat function, and secure underlying data, decreasing training time for soldiers while increasing agility for an expeditionary force. Consolidating existing capabilities as part of the COE will also lead to efficiencies in testing, fielding and sustainment.

To encourage competition and innovation, the COE provides software development kits enabling industry and other third parties to contribute new tactical applications to the standard baseline. Using the BBP framework, the Army is examining different methods to create a competitive contracting environment that will allow us to quickly procure and insert these technologies as needed to meet evolving missions.

Conclusion

The advantages of leveraging commercial technology are obvious: The Army spends less on development and gets capabilities to the field faster. Doing that smartly—so we safeguard security, promote competition and ensure "plug and play" interoperability among evolving technologies—is more complicated.

With BBP as the foundation, we are moving forward with an adaptive, standards-based approach that will affordably address emerging threats and drive innovation to sustain technological dominance—today and into the future.

The author can be contacted at **kevin.m.fahey2.civ@mail.mil**.

The **Challenge** of Technological Superiority

Alan Shaffer

For more than 25 years, the United States has had a dominant military advantage over any potential adversary. The underpinning of that advantage was the superior platforms and systems enabled by our technology. The technological superiority of the U.S. Department of Defense (DoD) is at the greatest risk in recent history, and this erosion occurs while ideological, economic, political, military and technological threasts proliferate to national and international security. Future engagements will require greater technological capability to operate in what I call the "commons": electronic warfare; missile defense; precision, navigation and timing; intelligence, surveillance and reconnaissance; integrated air defense; cyber; and weapons of mass destruction.

We are in a competition, and must do everything possible to get the best product from our research and development (R&D) program. Better Buying Power (BBP) 3.0 introduces initiatives to identify new investments, maximize output from our laboratories, increase our access to commercial and non-U.S. technology, enhance the linkage to industrial R&D (IRAD), and increase open systems to make modern technology more accessible. BBP 3.0 also is in direct support to the Defense Innovation Initiative (DII). Former Defense Secretary Chuck Hagel launched the DII with a goal of identifying new and innovative technologies that will be agile, flexible and ready to confront and defeat aggression from any adversary anytime, anywhere—with a smaller and leaner force structure.

The DoD has employed such "offset strategies" in the past to compensate for other challenges to national security. Our ability to obstruct, alter or move the playing field to take advantage of our strengths has given us the finest and strongest military capabilities in the world, to both protect and defend our nation and its allies and partners. The DoD is defining a new offset strategy to identify or devise new, high-payoff enabling technologies—unconstrained by current inventory—that will shape the trajectory of "technological superiority" and future materiel investments. The goal of this offset strategy is to create disruptive, enhanced and enduring operational advantages over potential adversaries at a time of constrained resources.

Research and Engineering (R&E) will play a pivotal role in addressing these current and future risks and the DoD R&E Enterprise is adapting to meet the challenge. Under the auspices of BBP—which recognizes that the DoD no longer has exclusive access to the most cutting-edge technology—the DoD R&E Enterprise seeks affordable innovation, reduced barriers to entry for non-traditional performers, and the application of critical thinking and new approaches to finding and developing new technologies, new capabilities and new advantages for our warfighters.

Defense Innovation Initiative

The DII was launched to harness the brightest minds inside and outside the DoD to identify current and emerging technologies, or projections of technology-enabled operational concepts. The goal is to accelerate the critical thinking, technical excellence and the business practices to support them that will allow us to improve our "speed to market" in the following areas: People, Wargaming,

Shaffer *is the Principal Deputy Assistant Secretary of Defense for Research and Engineering (PD ASD[R&E]).*

For decades, U.S. global power projection has relied on the ships, planes, submarines, bases, aircraft carriers, satellites, networks, and other advanced capabilities that comprise our military's unrivaled technological edge. **But today that superiority is being challenged in unprecedented ways.**

* * *

Advanced military technologies, from rockets and drones to chemical and biological capabilities, have found their way into the arsenals of both non-state actors as well as previously less capable militaries. And other nations—among them Russia, China, Iran, and North Korea—have been **pursuing long-term, comprehensive military modernization programs to close the technology gap that has long existed** between them and the United States.

* * *

A return to sequestration in fiscal year 2016 would affect all aspects of the department, but not all equally. More than one-third of the fiscal year 2016 cuts would come have to come from Operations and Maintenance accounts, with unavoidable reductions in readiness and our ability to shape world events in America's interest.

* * *

Let me put this more plainly: Allowing sequestration to return would deprive our troops of what they need to accomplish their missions. Approximately half of the cuts would have to come from the department's modernization accounts, **undermining our efforts to secure technological superiority for U.S. forces in future conflicts.**

* * *

Sequestration would put a hold on critical programs like our Aerospace Innovation Initiative, the Next Generation Adaptive Engine, the Ground-Based Interceptor missile defense kill vehicle redesign, and several space control efforts.

— **Secretary of Defense Ashton Carter**
Statement to the Senate Armed Services Committee,
March 3, 2015

DoD Research and Engineering Enterprise

- Military departments
- Service laboratories
- DoD Laboratories and Product Centers
- Defense agencies
  - Defense Advanced Research Projects Agency
  - Defense Threat Reduction Agency
  - Missile Defense Agency
- Other federal government laboratories
- Federally Funded Research and Development Centers
- University-affiliated research centers
- United States and allied universities
- Allied and partner government laboratories
- Industrial base

New Operational Concepts, Business Practices, and a Long-Range Research and Development Program Plan (LRRDPP).

Long-Range Research and Development Program Plan

The LRRDPP is a focused, concentrated effort modeled on an effort in the 1970s when the LRRDPP gave the DoD stealth, Prompt Global Strike, precision munitions and night vision. We designed the current LRRDPP to reach across, and outside, the DoD Enterprise to examine new concepts, systems and technologies that could provide meaningful military advantage for the next 10 to 15 years. We are casting a wide net, encouraging new ideas from across the DoD R&E Enterprise (Components, Agencies, Federally Funded Research and Development Centers, Multidisciplinary University Research Initiatives, Universities, Labs, Industrial Base) and from non-traditional performers (small- to medium-sized businesses, entrepreneurs, academics, researchers, associations, think tanks—and the general public).

Many of the technologies the DoD will depend on in future will come from outside the DoD. Today, much of the newest and "coolest" technology is driven by the fast-paced and ever-evolving needs, appetites and volume of the commercial marketplace—not from a requirements system coupled to a structured acquisition process that moves slowly. Commercial technology turns over in 18 months in some sectors. The DoD needs to allow integration of fast moving sectors—BBP 3.0 addresses some of these. We need to attract, and hold, the attention and R&D focus of the commercial sector. The DoD needs to remove barriers to entry and speed time to market for the innovations it requires now and in the future. We must identify relatively mature technologies that can be applied in novel or unique ways; emerging technologies that can be rapidly matured to offer military capabilities; and non-defense technologies that can be repurposed to meet our emerging needs.

LRRDPP is helping us to expand our R&E Enterprise. We posted a Request for Proposals asking the R&E community, and beyond, to share with us its ideas; to help us think through the technologically enabled systems and architectures that will identify opportunities for enduring defense innovation. We want to know what we should be doing now to ensure these initiatives achieve maximum traction in our system, that institutional barriers are overcome, and that DoD rapidly integrates these new concepts and capabilities to improve its effectiveness.

We're looking for technologies that can be moved into development programs within the next five years. Those companies or individuals with ideas can submit them into the LRRDPP portal on the Defense Innovation Marketplace (see http://www.defenseinnovationmarketplace.mil/LRRDPP.html).

So far, more than 300 "ideas" have been submitted. Emerging themes surround the use of autonomy, range and quantities at cost (the disaggregation of complex systems into smaller, less expensive systems that can be flexibly combined and fielded in greater numbers).

The LRRDPP team consists of five small, AGILE teams of government technologists to identify critical technologies and drive materiel concepts with the potential to contribute to our technology offset strategy. The teams will consider all responses, and a report is scheduled in 2015, just in time to allow adjustments in the fiscal year 2017 budget submission.

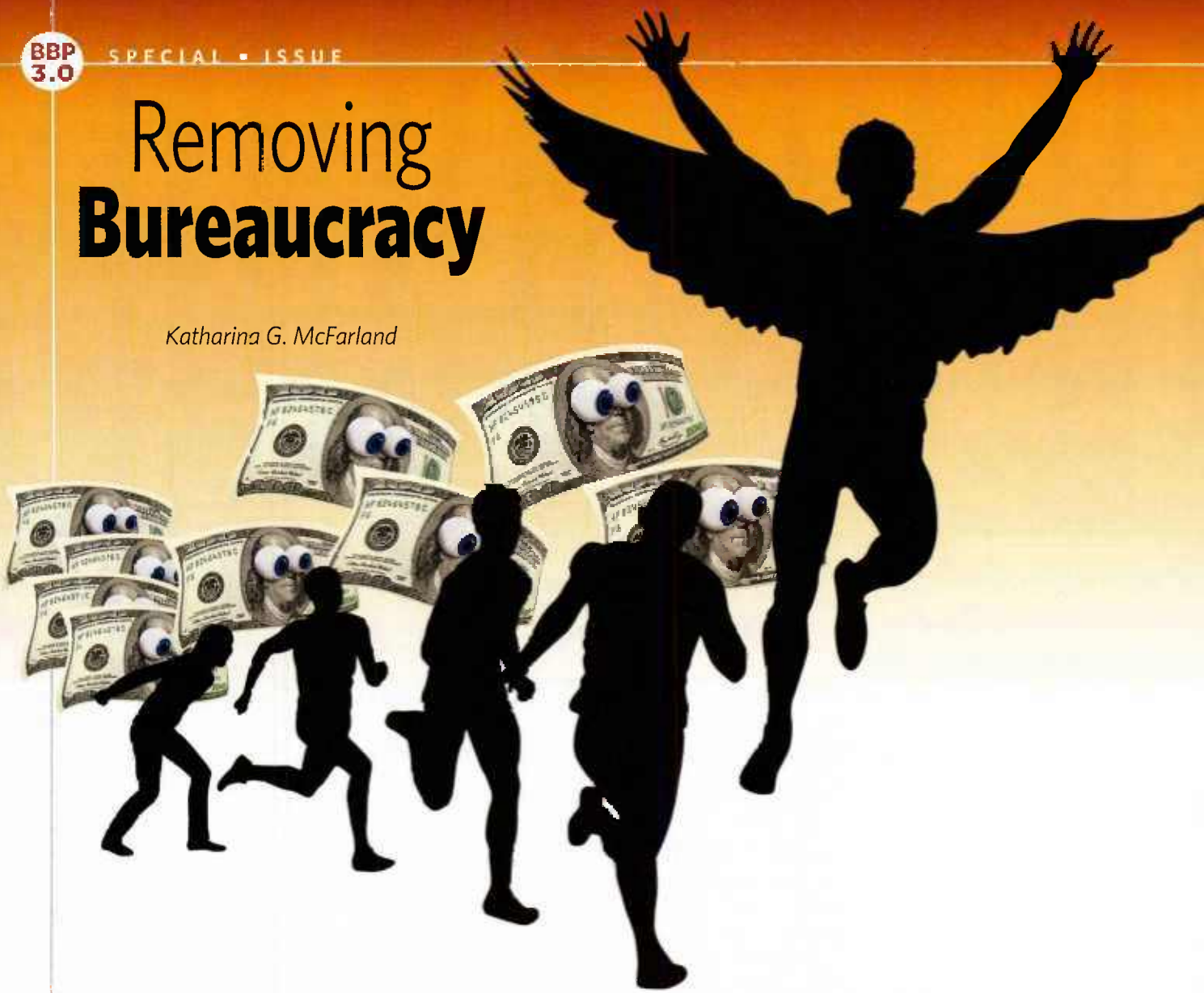
Even as we drive toward "open" systems architectures—integrating commercial, university, laboratory and international researchers and research into our future programs—we must strengthen protections for unclassified Controlled Technical Information in both the government and industrial base. We must acknowledge that our research and production base will be expanding beyond our traditional performers in the future. This expanded use of commercial technology may require policy and regulatory changes.

We must scan the commercial sector to identify and capture emerging and disruptive technologies, and develop new tools to allow accelerated development, transition to, and incorporation by, the DoD. What new devices can we employ? Consortia, such as the Spectrum Consortia initiated in 2014? Social Media Tools? Market Research Centers of Excellence (MARCO)? Can we speed development and buy down risk through expanded use of pilots? Demonstrations? Prototyping? In short, BBP pilots the concepts to identify new technologies with high potential, addresses our outreach to all sectors of the technology enterprise, looks to enhance the application of IRAD and Small Business programs, and focuses on maintaining our technological superiority—a goal we all can support.

The author can be cantacted at **osd.pentagon.ousd-atl.mbx.asd-r-e@mail.mil**.

Removing Bureaucracy

Katharina G. McFarland



I once managed a new start program to deliver a revolutionary warfighting capability in Battlefield Management/Command and Control. The Service sponsor was very engaged and supportive of the new program's requirements. However, when we did the cost estimate, it was clear that the cost would break the threshold of an Acquisition Category (ACAT) I program.

The comptroller then added a significant cost for "oversight" to the bottom line. Suddenly, senior involvement from all of the Service warfighting areas came together to scrub the program requirements due to concern over the "bureaucracy" and external oversight the program would bear. The general opinion was that this oversight brought no value, created enormous inefficiencies and drove the program into ineffectiveness by extending the time to field. There was even a concerted attempt to find a means to reduce the program cost through content reduction in order to avoid designation as ACAT I.

We should not have such a burdensome process that people are willing to reduce capability to avoid it. The recent release of Department of Defense Instruction (DoDI) 5000.02 repeatedly emphasizes tailoring to reduce unnecessary reviews and documentation, and the Better Buying Power (BBP) initiatives 1.0, 2.0 and now 3.0 have a section titled "Eliminate Unproductive Processes and Bureaucracy" that focuses on reducing cycle time, staffing time and all forms of inefficiencies. This includes review of those burdens that Congress, industry and we have put in place

McFarland *is Assistant Secretary of Defense for Acquisition.*

over time on the acquisition process. This review must happen at all levels of the organization and involves reaching out to other areas such as requirements development, intelligence integration, comptroller processes and Service staff review and influence. Any and all inefficiencies translate to some form of cost, and we owe taxpayers, ourselves and our warfighters the most efficient use of public funds ... particularly given such uncertainties as sequestration and declining budgets.

We all know there are reasons for the processes and oversight. The Department of Defense (DoD) executes a large spending of taxpayers' dollars and must provide transparency that reflects proper management of that spending to Congress and the general public. Congress established dollar thresholds identifying the levels of oversight for programmatic spending in accord with its goals. These goals are not just for providing national security means, but also address constituency concerns. A long list of various statutes, regulations and policy has been imposed on acquisition based on these goals (small business, Buy America, etc.). There also are statutes and regulations put into effect in an effort to prevent previous program "failures" from recurring. In both cases, the implementation and value of these measures must be assessed continually on how they impact the delivery of capability to the warfighter.

Let's go back to the above example. The program manager (PM) thinks of all the documents, briefs and related time delays her program will have due to the larger community of stakeholders for which she now is held accountable, distracting from her actual management of the program. She understands why the investment and capability she is held responsible for draws this attention. But what she wants, and the taxpayer deserves, is a meaningful, simplified and efficient way to be held accountable.

Let's examine an example on how to reduce unnecessary burden in the above new-start program. DoDI 5000.02 directs the PM to tailor her products and reviews to her program. All programs do not require all the same documentation. Corrosion Protection is not required for software, nor is the Clinger-Cohen Act required for a tent. So the PM should sit down with her team and establish the right set of documentation and the reason for it. When reviewing the *Defense Acquisition Guidebook* (*DAG*) to assist in determining where streamlining opportunities exist, the team must understand that the *DAG* does not supersede the DoDI 5000.02 direction, but it is a guideline for understanding. DODI 5000.02 Table 2, found in Enclosure 1, shows what milestone requirements are statutory, regulatory or policy. This allows a quick assessment of where tailoring can be done. (See the Table, pp. 47-58 in the PDF at http://www.acq.osd.mil/fo/docs/500002.)

After using tailoring to determine which documentation is appropriate and required for a particular program, the next step is to use tailoring to streamline the content of that documentation. This requires support and judgment from staff members who participate in creating and approving it. Of course, if these people are not trained to put content before format, the PM team's tailoring will not succeed. In order for staff members to know what content is important, they need to spend time to really understand the program and not rely on demanding late-game explanations from the PM and her team. Senior leadership needs to provide clear guidance to all stakeholders that tailoring is not only accepted but demanded.

The PM understands why the investment and capability she is held responsible for draws this attention. But what she wants, and the taxpayer deserves, is a meaningful, simplified and efficient way to be held accountable.

Tailoring also should extend to the approval process. Staff should be provided access to learn and provide comment, but the number of people with the ability to stop progress on document creation and approval should be limited by the Senior Acquisition Executive (SAE) and the Defense Acquisition Executive (DAE) to those who are held personally accountable for the program's success or failure. Tailoring is intended to result in preparation of a basic set of management plans, tools and data that are fundamental to effective program management and that facilitate program transparency. It also means that regulatory requirements that are not needed to manage the program should aggressively be "tailored out."

Automation can help. Another example, started this past year, is automating the documentation review by Service and Office of the Secretary of Defense (OSD) staff through use of an electronic coordination tool (ECT). The new ECT pilot has OSD and staff review of a document occur electronically at the same time and on a specified schedule, rather than have the Service staff review and the SAE sign documents prior to OSD staff review. The SAE then obtains

the redlined document with comments from the PM. The SAE can accept or revisit the PM's document and resolution of comments on their merits and then sign. The redlined document, with the final comment reconciliation matrix, is then placed back on ECT for a short final review before going to the DAE. Staff review has been reduced to less than two months on average, where we previously had examples of documents taking two years to get to DAE signature. The automated process emphasizes the SAE and DAE, saving the PM from frustrating redundant staff review and allowing her to focus on answering the final decision maker's concerns. One lesson learned, however, is that this process should not replace telephoning or exchanging emails if there is confusion over the comments provided.

These thoughts are focused on the PM, but what about reducing the bureaucratic burden on industry? I recently conducted a pilot review with a set of small, medium and large defense industry partners to assess what could be done to reduce the burden on industry. Our efforts resulted in investigating a set of business systems processes and contracting methods. After approximately one year's effort by two dedicated government/Federally Funded Research and Development Center (FFRDC) people, we were able to recommend changes in Federal Acquisition Regulations that will reduce cycle time, Earned Value Management changes that will reduce manning and save millions, and guidance that will ensure consistency of business practices across the enterprise. That consistency will reduce rework and simplify business systems. We are realigning 50 people to other high-priority tasks in the Defense Contract Management Agency, and industry forecasts indicate this will provide millions of dollars of cost avoidance.

My final example is our legislative proposal efforts. A Service/OSD team reviewed documentation and processes and noted possible improvements. The Acquisition Strategy, a living document, was proposed to replace many of our current required milestone documents and certifications in order to eliminate redundancy. The initiatives submitted were designed to streamline, revise or eliminate submissions in the following areas: Milestone Decision authority, contract type selection, Manpower Estimates, Life-Cycle Management, Product Support, Risk Management, and Defense Business Systems. Our working relationship with Congress on these proposals has led to the recent draft "Acquisition Reform" proposal from Texas Rep. Mac Thornberry that includes many of our recommended ideas.

But these efforts are just a few examples of what has been done. BBP 3.0 has more planned in documentation review, *DAG* updating, streamlining of documents and removing burdens from Industry. Everyone can help. Let us know your ideas at the Defense Acquisition University. Please send your comments through the email address below.

The author can be contacted through **richard.e.hoeferkamp.civ@mail.mil**.

Modernizing Our Industrial Base

The National Security Challenge of Our Time

Andre Gudger

A strong, responsive and healthy industrial base is critical to our national security and provides access to the world's best products, most innovative technologies and cutting-edge capabilities that have kept the United States military ahead of its adversaries for more than a half-century.

Industry is the cornerstone to maintaining this technology superiority and the freedom we enjoy as a result of it. By making forward-leaning research and development (R&D) investments and attracting the brightest and most innovative companies to serve and protect our national security, we have been able to win conflicts, deter conflicts and support humanitarian crises across the world. While our nation still enjoys the strongest, most advanced military, our competitive edge has narrowed and in some areas has been surpassed. The time to act to reverse this trend is now, and the Department of Defense's (DoD) Better Buying Power (BBP) 3.0 initiatives seek to do so by achieving dominant capabilities through technical excellence and innovation. These efforts will maintain our nation's status as the world's dominant player in technology innovation, manufacturing and industrial base capability.

The road to maintaining U.S. technological superiority has several challenges. Outsourcing of key technologies and a lack of innovation in manufacturing processes over the last several decades have eroded industrial capabilities here at home. Reductions in defense spending lead to declining critical investments across several sectors

Gudger *is Acting Deputy Assistant Secretary of Defense Manufacturing and Industrial Base Policy.*

where maintaining design, build and manufacturing skills are important for the future. Additionally, as much of our workforce approaches retirement, the DoD and industry face a significant challenge in attracting our best and brightest into the national security space when we compete with the likes of commercial companies, which are hiring the next generation of sharp, technology-literate professionals. Last but not least, advancements in manufacturing have slowed in direct correlation with decreasing numbers of graduates with science, technology, engineering and mathematics (STEM) degrees. And, while all this happened here at home, the world caught up with or overtook us in several key areas.

Now more than ever, the DoD and the industrial base must work together and make the best business deal to benefit the taxpayer, allow for reasonable profit and provide the solutions we need to address our national security challenges. Revitalizing technology innovation must be at the forefront of this strategy in order to answer President Obama's call to action when he said in his 2010 National Security Strategy, "Simply put, we must see American innovation as a foundation of American power." We can accomplish this if we operate under the tenets of making the right investments, fostering innovation in government and industry, and reducing the barriers to doing business with the DoD.

Commercial technologies in programs: One focus of BBP 3.0 that can have tremendous impact on defense technology innovation is doing a better job of integrating commercial technologies into programs. Anyone who bought a new iPhone 5 in 2013 and now suffers from iPhone 6 envy can tell you that commercial products not only turn over quickly but become progressively more affordable. Any soldier using an outdated GPS system or sailor replacing 1,000-feet-long fiber optic cables, instead of one malfunctioning foot, will tell you they wish they could say the same for products coming out of the Defense Industrial Base (DIB). When we buy products in our private lives, we expect the best product at the cheapest price and to buy the next greatest product the following year at an even lower price. This is the mindset we need to instill in government and the defense industry, but that cannot happen if we do not find a faster and more efficient way to contract with industry for these commercial technologies.

The good news is that we see a dynamic marketplace and the need to engage with it differently. We know that the nature of conflict is changing and that it is risky not to change with it. Just as we developed and employed GPS, stealth, precision weapons and other force-multiplying capabilities in the 1980s and 1990s, we must do the same today for game-changing capabilities whose potential lies dormant within the DIB. We see many emerging technologies like advanced and longer-range weapons, situational awareness tools and applications, autonomy and robotics that we need to harness and fully develop for DoD missions. With this type of guidance well-articulated in BBP, the DoD is acting to develop and deploy the capabilities to meet future challenges.

One way the DoD is tackling these challenges is by diversifying who we consider to be part of the industrial base. When the term "Defense Industrial Base" is used, entrepreneurs, inventors and other nontraditional suppliers do not immediately come to mind. But including more nontraditional suppliers in the DIB will drive the development of innovative products that can meet our future requirements. The challenge is to devise the right policies, programs and business incentives to attract these players who have products and technologies we need but who would never consider doing business with the federal government because of the bureaucracy and red tape. Where appropriate, we need to remove inefficient policy that keeps the DoD from getting the best possible business deal.

The DoD has made some headway in addressing this area. Through the Small Business Innovation Research (SBIR) Program, the DoD awards more than $1 billion per year to innovative small companies, with 25 percent of Phase One awards going to new entrants. This means that every four years we turn over our SBIR awards to new entrants, which has led to historically high commercialization rates for SBIR technologies in the government and private sector. We also established the Rapid Innovation Fund, which provides a rapid acquisition process to bring into the DoD innovative technologies that can be fielded into theater in support of the warfighter. Every year, through this program, the DoD invests $225 million in products developed almost completely by small innovative businesses. We cannot predict innovation, but we can predict the things that cause it. That is why we need an open channel to industry that allows the DoD to pull the best ideas from inventors and entrepreneurs and to push our most complex challenges to them to find solutions.

Another frontier for developing cutting-edge manufacturing technology is through the National Network for Manufacturing Innovation (NNMI). This network of manufacturing institutes consists of public-private partnerships through a cooperative agreement in a one-to-one cost share with the government, which reduces barriers to rapid and efficient development and commercialization of new manufacturing technology, including manufacturing cybersecurity.

Through these public-private partnerships, the DoD, industry, universities and other federal agencies are establishing institutes that will develop, refine and expand production of pioneering capabilities. These technologies are in sectors ranging from additive manufacturing to development of lightweight metal technologies. The institutes not only will develop products and processes in the short term but ultimately will reinvigorate our industrial commons, provide a multidisciplinary link between manufacturing, design innovation, the education system and industry—which will lead to jobs and prosperity in America.

Today product designs are collaborated on within the cloud, rendered in a digital environment, virtually tested and certified and seamlessly manufactured throughout the supply chain.

Our Digital Manufacturing and Design Innovation Institute is developing technology innovations in this arena by focusing on the "digital thread," which provides a way for digital information to securely flow across the life cycle of a manufactured product. This includes suppliers, customers, smart machines, and workers on the manufacturing floor. These investments are extremely important because innovation also occurs on the assembly line during the build phase, making modern manufacturing capabilities and mass production the principles that will allow our products to be competitive in the global marketplace

In its quest to modernize and sustain a healthy industrial base, the DoD also is looking outside our borders for the best solutions. Working with our allies, we are constantly looking for opportunities to leverage global commercial technologies, promote co-development of critical technologies, leverage research-and-development dollars through joint research, and encourage joint ventures between American and international companies where appropriate. As globalization and interconnected economies make the world smaller, working closer with our allies allows us to use our resources more efficiently, sustain our existing industrial capabilities and work across the world to maintain peace and stability while developing the greatest technologies.

The future of our workforce also is critically important. Innovation is related not only to technology but also to people, in terms of how they understand and perform their jobs and how we attract the best talent. An underlying theme in and critical prerequisite for asserting American technical dominance is a highly skilled talent pool capable of meeting the DoD's current requirements, future goals and contingency plans. A major component of this is developing people with backgrounds in STEM. Approximately 45 percent of the federal government's scientists and engineers work in the DoD, which demonstrates the critical need for these skill sets. Because DoD is a key customer of STEM-generated products, it has a responsibility to contribute to developing STEM-literate individuals and growing and maintaining that talent pool. STEM talent must be developed from the bottom up, including outreach to and access for underrepresented communities and availability of STEM education for Service members and their families.

Overall, if we want the benefits of an efficient and effective workforce, we need the innovative next generation of professionals to be a part of it. Right now, many of our most talented engineers, software developers and scientists are not coming to work for the DoD or its industrial base; rather they go to work in the commercial industry for companies such as Facebook, Google and Tesla. This happens for a variety of reasons, including the government's work environment and hiring practices and the type of forward-leaning thinking that can be found in places like Silicon Valley. The reality is that the federal government cannot compete with the commercial sector for this motivated pool of talent. We must find a way to use flexible hiring authorities to bring on the talent we need and to create an environment that does not stifle creative thinking.

There also is much that can be done within the DoD's acquisition workforce. The DoD has developed workforce training to increase professionalism and creative thinking and it is utilizing flexible contracting authorities to help acquire expertise to meet all of its requirements. In order to identify current and future suppliers with the capabilities we need, the acquisition workforce must perform targeted, insightful market research powered by advanced business intelligence. To enable effective market research and identification of our most critical suppliers and fragile sectors, the DoD, for the first time, is deploying business intelligence tools utilizing big data principles to allow its workforce to leverage the latest technologies and analysis techniques. This will promote more competition and key investment in areas where the DoD must maintain industrial capability. Lastly, DoD created the website business.defense.gov as a one-stop shop for industry and the acquisition workforce, to serve as a portal at the intersection between business and defense inside the DoD.

Ultimately, none of this can be achieved without a dynamic partnership with industry. The DoD continues talking to industry, communicating our vision for the future, to facilitate the best business decisions that align industry's goals with DoD's objectives. As the DoD looks inward to address its challenges, it is equally important for the DIB to play its role in driving innovation and developing cutting-edge products. Industry should use its reimbursed and independent R&D dollars to make real investments in its businesses' future. Using these resources for bid and proposal activities or to keep idle teams on standby is not in the best interest of the DoD or shareholders who would like to see a growing, vibrant defense industry. The DoD wants to see tangible investments and an understanding that innovation requires more than just acquiring new or novel businesses that already have developed an innovative technology or product. Both traditional and nontraditional suppliers should align their visions with that of the DoD as it shifts toward achieving dominant capabilities through innovation and technical excellence.

Modernizing the DIB: To ensure that our nation maintains its strategic industrial capabilities, modernizing the DIB is one of this century's greatest national security challenges. How we approach these challenges will determine the strength of our military, the resilience of our economy, and our place in the community of nations for the next several decades. Failure is not an option; we can meet this challenge through cooperation and partnership. There is no silver-bullet solution. But if we invest in the right areas, innovate new technologies and inspire our brightest minds to enter national security-related fields, our nation will continue to lead the world and support maintaining peace and stability for decades to come.

The author can be contacted at **andre.j.gudger.civ@mail.mil**.

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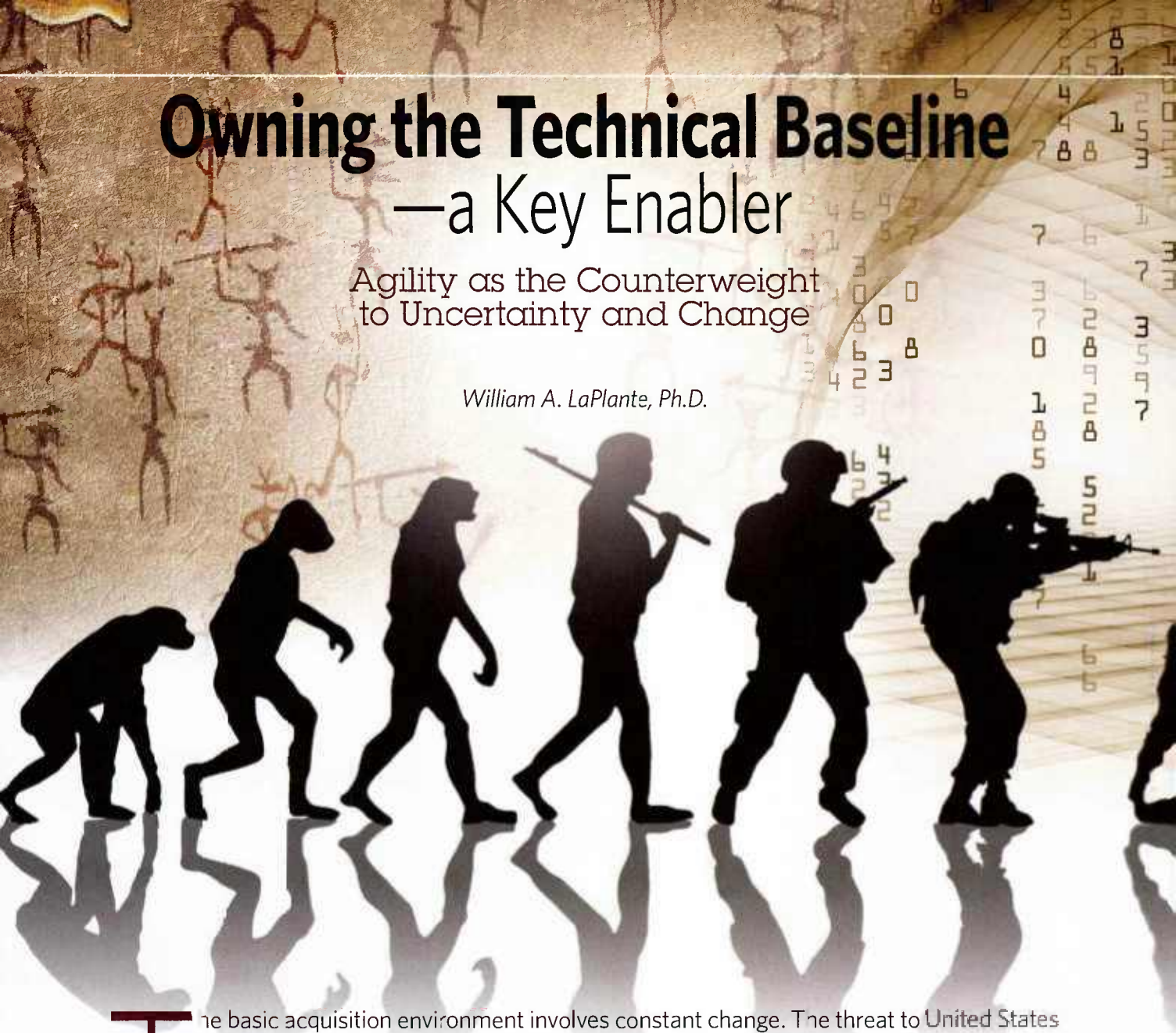
Owning the Technical Baseline —a Key Enabler

Agility as the Counterweight to Uncertainty and Change

William A. LaPlante, Ph.D.



The basic acquisition environment involves constant change. The threat to United States interests is going to change, technology is going to change and warfighters will discover different ways to use their equipment. In order for weapon systems to accommodate these certain yet—in specific terms—often unpredicted future changes, we must design systems up front to be constantly modified, perhaps in ways that we may not be able to anticipate now but will discover in the future. This fundamentally means we must embrace adaptability as a basic precept for how we develop, procure and sustain our weapons systems to be effective for the warfighter over their life cycles.

The underlying metric for such agility and adaptability is speed. When we can develop and field capabilities fast, we must do so. Furthermore, agility and adaptability can be enabled by designing systems with modularity, well-designed standards and open-system architectures and protocols. Developing systems this way allows the

LaPlante *is the Assistant Secretary of the Air Force (Acquisition). Dr. LaPlante oversees a research and development, test, production and modernization program portfolio of more than $32 billion annually. He also is responsible for development and execution of policies and procedures in support of the Air Force acquisition system. He has more than 29 years of experience in defense technology including positions at the MITRE Corporation and the Johns Hopkins University Applied Physics Laboratory. He holds a doctorate in mechanical engineering.*

rapid insertion of technology breakthroughs or new capabilities to address threat changes. We also must continuously prototype and experiment and bring together warfighter experts, analysts and technologists to learn what works, what doesn't work and, most important, to innovate. These things are what we emphasize in the Air Force and with our colleagues in the Department of Defense (DoD), industry and academia. These approaches are embedded in all five of our Air Force acquisition priorities:

- Get the high-priority programs right and keep them on track.
- Improve relationships and transparency with stakeholders.
- **Own the technical baseline for important programs.**
- Build on "Better Buying Power" (BBP) to improve business acumen and small business to achieve best program outcomes.
- Build to the long-term strategy—resiliency to peer competitor—and experiment and innovate.

This article highlights priority No. 3 "Own the Technical Baseline for important programs." Owning the technical baseline is essential to our future and it means the government program team, independent of the prime contractor, can make proper decisions to achieve successful acquisition outcomes. Examples include:

- Deep understanding of system and sub-system designs and architectures
- Ability to conduct end-to-end performance models of the system combined with a continuous technical effort to update and validate system models, using testing and engineering data
- Ability to continually assess and mitigate system's cyber vulnerabilities
- Ability to understand and actively mitigate technology and system integration risks

Additional Reading/References

America's Air Force. A Call to the Future (http://airman.dodlive.mil/files/2014/07/AF_30_Year_Strategy_2.pdf)

Enhancing Adaptability of U.S. Military Forces (http://www.acq.osd.mil/dsb/reports/EnhancingAdaptabilityOfUSMilitaryForcesB.pdf)

Driving in the Dark: Ten Propositions About Prediction and National Security (http://www.cnas.org/files/documents/publications/CNAS_Prediction_Danzig.pdf)

Development Planning: A Strategic Approach to Future Air Force Capabilities (http://www.nap.edu/catalog/18971/development-planning-a-strategic-approach-to-future-air-force-capabilities)

Performance of the Defense Acquisition System 2014 Annual Report (http://www.acq.osd.mil/fo/docs/Performance-of-Defense-Acquisition-System-2014.pdf)

- Quantitative understanding of how related legacy systems or the system being upgraded is used and how it performs operationally (e.g., reliability/availability, key performance metrics, etc.)
- Access to competent test designers and planners and the ability to competently conduct post-test analysis
- Ownership and active management of integrated master schedules and, as needed, software schedules
- Establishment and maintenance of open interface standards, with the ability of the government program office to compete block upgrades to the system

In some ways, our emphasis on owning the technical baseline seeks to overcome the residual undesirable effects of the acquisition workforce downsizing during the 1990s "acquisition reform" era. In those days, there was significant outsourcing of government capabilities and decision making to the prime contractor with a "thin" government program office. With the rejuvenation of the acquisition workforce over the last five years, enabled by programs such as the Defense Acquisition Workforce Development Fund, owning the technical baseline allows us to raise the bar to a higher level with a focus on a collaborative relationship in which the government and the prime contractor together own the knowledge of the weapon system and both entities can competently work together and with the government functioning as an able and informed customer. We are moving toward the best of all worlds—both the government and industry teams challenging and holding each other to the highest standard and getting the right acquisition outcomes.

Recently, I commissioned a National Academies study on the subject of "Own the Technical Baseline" to assess comprehensively where Air Force program offices are and to recommend ways to further expand this initiative (the resulting report was expected to be issued in May 2015). Owning the technical baseline also is being piloted across a dozen Air Force Major Defense Acquisition Programs, using goals and metrics developed collaboratively by the Deputy Assistant Secretary of the Air Force for Science, Technology, and Engineering (SAF/AQR) and Program Executive Office Directors of Engineering. Some of the early findings from the participating programs indicate there are common skill gaps within the government program offices in the system reliability, production and manufacturing. In addition, a preliminary observation indicates program offices need to be stood up and staffed earlier (years earlier, in some cases) than we traditionally do for new starts—essentially begin to own the technical baseline even before there is a completed Analysis of Alternatives.

Our specific approach regarding owning-the-technical-baseline implementation begins with each program chief engineer performing a self-evaluation of his or her program using a tool developed by SAF/AQR. The assessment tool is tailored per the program's acquisition phase and has seven areas to be reviewed and assessed: system design, interface definition and controls, system model, performance data, data rights and architecture, cost data and technical risks and/or issues. As part of the assessment, workforce needs and skill gaps are identified along with mitigation strategies (such as reliance on Federally Funded Research and Development Centers, expert support contractors or matrixed personnel from other program offices and laboratories). These gaps fold into the workforce rejuvenation effort that is an integral part of the Air Force Engineering Enterprise Strategic Plan. This assessment will be updated regularly and progress will be measured over time as we reclaim the technical baseline in each program. We are learning that some programs are very close today to what we would consider robustly owning the technical baseline; others must do more work to get there. In either case, we will expand this initiative systemically across all Air Force programs to make us the smart and effective buyer the warfighter and the taxpayer expect us to be.

As we continue to roll out this initiative, we find the concept of owning the technical baseline resonates with the workforce and industry. In many ways, it is very much aligned and tightly linked with the innovation and technology focus of the most recent Better Buying Power 3.0 Achieving Dominant Capabilities through Technical Excellence and Innovation. Air Force program offices must have the technical expertise and the tools to understand and own the technical baseline so it can effectively manage technical risks and produce the agile and adaptable capabilities we desire (e.g., modularity, open systems architectures, continuous competition, etc.). In other words, we cannot achieve our goals of developing, procuring and fielding adaptable and agile capabilities without our government program offices "owning the technical baseline."

The author can be contacted through **william.l.ottati.mil@mail.mil**.

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Improving Tradecraft of Services Acquisition

Alan Estevez ■ *Ken Brennan*

The Department of Defense (DoD) spent more than $156 billion in fiscal year (FY) 2014, or more than 55 percent of DoD's total contract obligations, buying contracted services. In other words, the DoD spent more money buying contracted services than it spent buying major weapons systems in FY 2014.

However, buying contract services does not have the structured governance and management oversight of the weapon systems acquisition process. That is why, since the introduction of Better Buying Power (BBP) 1.0 in 2010, the DoD has worked to improve contract services acquisition oversight throughout the services life cycle, from budgeting, requirements development, contract award and execution, through contract management and closeout.

The DoD recognizes that contractors perform vital services in support of the entire DoD mission and team. The DoD contracts for services to maintain our combat equipment, move our forces to and from areas of combat

Estevez *is Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics (AT&L).* **Brennan** *is Deputy Director, Services Acquisition (Defense Procurement Policy and Acquisition Policy, AT&L).*

operations and provide life support at the contingency bases from which they operate, sustain our facilities and test ranges, and provide health-care services to members of the military and their families. With tightening budgets, and increased risk, there must be a greater focus on improving contracted services outcomes. To provide appropriate oversight for such a large component of its budget obligations, the DoD is implementing and executing a department-wide oversight structure for the management of contracted services requirements. This structure will strengthen contract management outside the normal acquisition chain and expand the capabilities in services requirements development and validation, improving contracted services and meeting the needs of all service requirements owners (customers and warfighters).

Each successive release of BBP has included a section on improving the tradecraft in the acquisition of services. For example, BBP 1.0 required each military department to designate a senior manager to oversee its services acquisitions. BBP 2.0 led to development of the DoD Instruction (DoDI) currently in final staffing.

BBP 3.0 builds on the successes of its predecessors and focuses on three areas: Strengthening contract management outside the normal acquisition chain—installations, etc.; improving requirements definition; and improving the effectiveness and productivity of contracted engineering and technical services. The first two are carryover initiatives from BBP 2.0 but require continued focus until the new DoD Instrucion (DoDI) is completed and the military departments begin implementing the new services acquisition guidance. The final focus area was added to ensure that, in its acquisition of engineering services, the DoD promotes innovation and maintains technological superiority

The overarching goal as the DoD works to improve the acquisition of contracted services is to align requirements (performance) with budget (cost) and schedule, resulting in benefit for not only the warfighter but the American taxpayer as well. We will do this by facilitating improvement in the following three areas:

1. **Service Acquisition Governance:** The scheduled new DoDI 5000.ac, "Defense Acquisition of Services," will complement the recently issued DoDI 5000.02, "Operation of the Defense Acquisition System" by focusing solely on services.
2. **Portfolio Management:** Uniform portfolio groups (Knowledge Based Services, Transportation Services. Logistics Management Services, Equipment Related Services, Electronics and Communication Services, Medical Services, and Facilities Related

Services) and Functional Domain Experts (FDEs) for each portfolio group provide enterprise-level oversight and policy across all DoD agencies within their respective portfolios.

3. **Training and Tools:** The DoD is identifying the training requirements for both Defense Acquisition Workforce Improvement Act (DAWIA) members and non-acquisition workforce for services acquisition training (including requirements development and oversight training) and is dedicated to providing these audiences with multiple training options.

The overarching goal as the DoD works to improve the acquisition of contracted services is to align requirements (performance) with budget (cost) and schedule, resulting in benefit for not only the warfighter but the American taxpayer as well.

Improved Services Acquisition Governance

Most of the acquisition professional community (under DAWIA) is defined by its role in major acquisitions of weapon systems or information systems and is governed by DoDI 5000.02. Services acquisition differs in that many of the requirements, while in support of a larger mission capability, exist primarily as stand-alone requirements outside the governance of DoDI 5000.02. In other words, "Anyone with a dollar and a willing contracting officer can procure services." Therefore, to improve services oversight, without bogging it down in unnecessary bureaucracy, Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]) Frank Kendall drafted DoDI 5000.ac, titled "Defense Acquisition of Services," with issuance scheduled for June 2015. This new instruction establishes policy, assigns responsibilities and provides general procedures for DoD Components which can be tailored to their needs to provide effective and efficient management and oversight when acquiring contracted services. As much of the services spending is executed in smaller contracts, the DoD wishes to improve its oversight capabilities, develop an expert understanding of where services dollars are spent, and use the knowledge of services tradecraft to make strategic decisions about how to most efficiently meet the needs of the warfighter.

The DoDI 5000.ac will do the following for management and oversight of contracted services:

- Encourage using the Defense Acquisition University (DAU) Service Acquisition Process for standardization. This seven step, team-focused approach relies on market research, requirements definition and strategy development and execution to provide the best likelihood for services acquisition success. See Figure 1.
- Establish Service Categories (S-CATs), thresholds and decision authorities to allow appropriate level of oversight given overall size (and risk) of services acquisitions. Like major systems acquisition, the largest (defined as services acquisitions with a total value of more than $1 billion) will require higher-level reviews along with meeting Component approval requirements, but the smaller services acquisitions have oversight lower in the organization to provide maximum flexibility.
- Make services acquisitions "Commander's Business." The DoDI requires appropriate management of services acquisitions and links command structure and acquisition approval chains. The oversight function and decision authority are linked to the customer/warfighter and the acquisition community.
- Implement and strengthen the requirements validation process by utilizing a Services Requirements Review Board (SRRB). The SRRB requires review and approval focusing on requirements development, affordability, budget constraints, workforce analysis (military, civilian or contractor) and competing priorities as overseen by the command structure customer.
- Provide flexibility to military departments/defense agencies to develop specific procedures based on their own specific organizational resources and structure

Portfolio Management

Services acquisitions are predominately decentralized. This means that each services acquisition recreates the information it needs each time, and the DoD loses the buying power of acting as a single buyer. To improve on these two issues, the USD(AT&L) appointed senior DoD officials as FDEs for specific portfolios (See Figure 2) and tasked each to actively oversee the life-cycle process of services acquisition within his or her portfolio. This includes forecasting and budgeting, requirements definition and validation, active procurement management, and oversight of contracted services. Full implementation varied among the portfolio groups due to the differing nature of the contracted services. The overarching focus areas are common to all, including requirements to:

- Identify contracted services requirements owners (customers), as well as the amount and appropriateness of

contracted services in the portfolio group. Issues to be assessed include why certain organizations contract for certain services at a different rate than elsewhere in the DoD, whether (and when) the DoD should contract for particular services, and whether there is a workforce balance issue regarding contracted services, etc.

- Develop policy to facilitate appropriate prioritization of contracted services requirements for trade-off discussions and decisions. Policies should take into account life-cycle management of the service requirement, risk, mission impact and workforce management.
- Identify functional expertise across the DoD to identify and export localized best practices in the acquisition and management of services to customers who are not as expert in services acquisition.
- Develop appropriate metrics and goals for actively managing and reporting improvements in services acquisition and mission support.
- Implement standardized processes in services acquisition life cycles (from budgeting through execution) to improve consistency and to facilitate year-to-year comparisons.
- Report regularly improvements in cost, schedule, and performance of contracted services within the portfolio groups.

Figure 1. Services Acquisition Process

Effective strategic management of services is the ultimate goal. The leadership provided by the portfolio FDEs executing the focus areas detailed above will directly contribute to helping achieve greater efficiency and productivity in defense spending as detailed in BBP 3.0.

Training and Tools

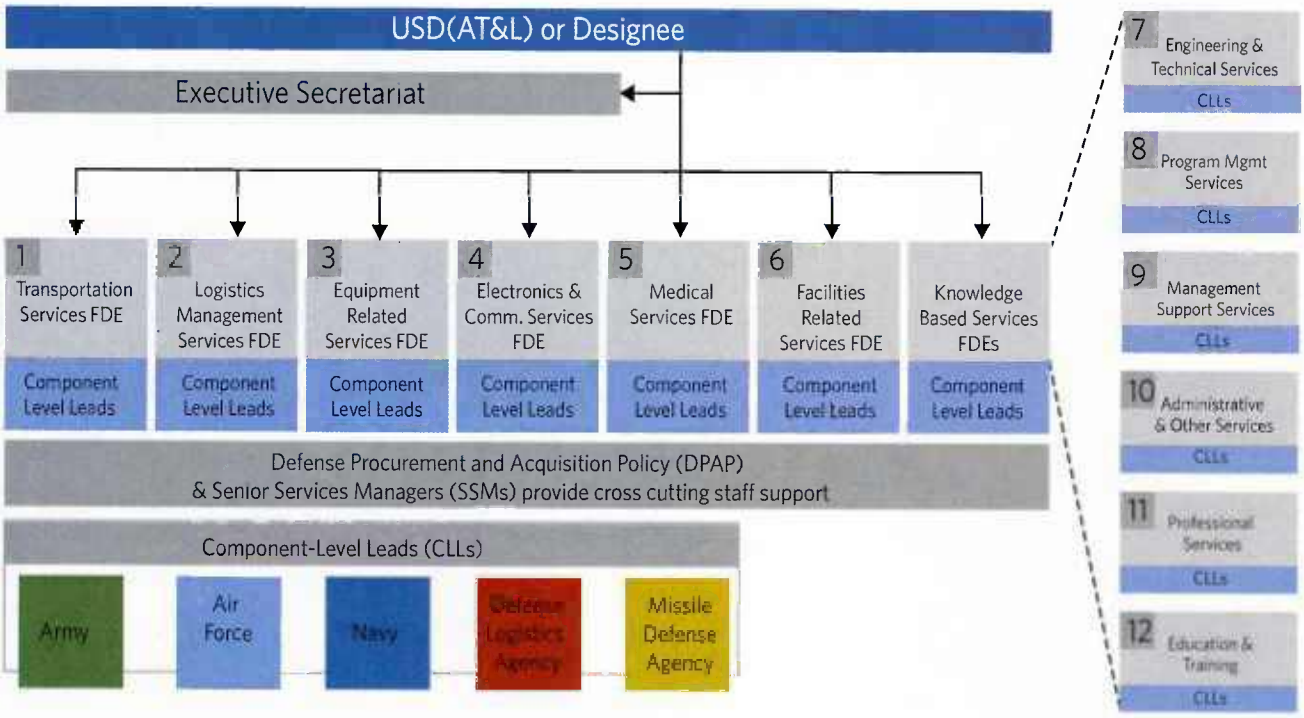
BBP 1.0 and 2.0 rightly noted that services are required and overseen by DoD personnel that often are not part of the DAWIA acquisition workforce. BBP 3.0 continues the work begun under its predecessors by focusing effort on development of all services acquisition stakeholders, not just those under DAWIA. The DoD is developing and disseminating training products and practical tools via a Services Acquisition Functional Integrated Product Team (FIPT) to support service acquisitions from requirements development to performance assessment. There is special, short-term, focus on methodologies that result in immediate, near-term improvement of specific acquisitions. The unique aspect of this FIPT is that the targeted workforce is comprised of both statutory DAWIA and non-DAWIA personnel.

A Functional Lead has been appointed by the USD(AT&L) to serve as the senior DoD subject-matter expert for services acquisitions. Differing from DAWIA career field management, the services acquisition Functional Lead is not focused on a DAWIA career field or certification, as there is none for services acquisition. Instead, the Functional Lead is tasked to assess the training and tools needed by personnel often assigned responsibilities relating to acquisitions for services but who do not meet criteria for full inclusion into the DAWIA workforce. DAWIA and non-DAWIA personnel are involved in defining requirements, shaping the acquisition decision-making process and overseeing services acquisitions, so the training curricula and tools must be available to, and meet the needs of, all who are engaged in services acquisition.

One of the primary challenges for this particular FIPT is to develop a process to identify personnel with acquisition-related responsibilities, especially to those outside the normal acquisition chain, to ensure they are trained properly to execute the duties required to adequately support effective services acquisitions. As observed by the Government Accountability Office (GAO) in its September 2011 report titled, "Defense Acquisition Workforce: Better Identification, Development, and Oversight Needed for Personnel Involved in Acquiring Services," this population is dispersed throughout the DoD and is represented by a variety of career fields. For many, their responsibilities for services acquisition are a one-time, secondary duty.

To address these requirements for the entire DoD workforce engaged in services acquisition, the FIPT is chartered to:

Figure 2. Functional Domain Expert (FDE)/Portfolio Structure



- Define learning requirements and training sources for required skills; determine availability of various training methods/media. Given the dispersed nature of the workforce, it is expected that virtual learning will be a substantial component.
- Review and maintain currency of training material information on the service acquisition website; share tools, resources and learning assets. This includes leveraging existing material—i.e., "avatar" training videos and continuous learning modules from Army and DAU, respectively.
- Assess and identify training capability gaps, define new requirements and oversee development of products to eliminate the gaps.
- Serve as a forum and clearinghouse for cross-cutting initiatives, lessons learned and issues of mutual interest and concern. This is in concert with, yet complementary to, the FDE capabilities detailed above.
- Provide a means for information and best practice sharing across the DoD acquisition of services community involved in education, training, development and planning for this diverse workforce. Much of the content developed to date can be found at the services acquisition webpage at http://www.acq.osd.mil/dpap/sa/index.html.

The Services Acquisition FIPT has identified some of the technical expertise and experience that will play a critical role in developing the requirements and documents for future services acquisitions. To provide multiple education and training opportunities to the services acquisition workforce (both DAWIA and non-DAWIA) the FIPT has partnered with multiple providers (including, but not limited to DAU and the U.S. Army Logistics University) to provide basic training in requirements development for services acquisition professionals. It is expected that the FIPT will continue to build on this capability to offer even more service acquisition training to the diverse workforce that will benefit from it.

Conclusion

In a time of declining budgets and an unrelenting focus on savings, the services acquisition environment, with more than half of the DoD's contract obligations, will be an area where efficiencies and further savings can be realized through analysis, oversight and process improvement, improved training and strategic management. A 10 percent savings in services would amount to $15.6 billion that could be applied to other priorities, including innovation in maintaining our technological edge. BBP 3.0 recognizes this opportunity and continues the BBP focus on improving tradecraft in services acquisition.

Requirements development, validation, prioritization and approval are critical to ensuring we buy only the services we need, and at the levels required. Processes, knowledge and metrics all will contribute to improving services acquisition. With the imminent issuance of the services acquisition-specific DoDI, FDEs oversight, including metrics and goals, and improved training and tools from the services acquisition FIPT, the DoD continues its improvement in effectively managing its services acquisitions for the benefit of the warfighter and the American taxpayer.

The authors can be contacted through **aimee.l.kominiak.mil@mail.mil**.

Getting the Requirements Right

Sean J. Stackley, USN

Dr. Jim Colvard, a long-time executive and engineering leader in the Department of the Navy, once said, "The deployed Navy sleeps on its ordnance, operates far from supply lines, and is consequently compelled to understand the technical details of its own weapons and platforms."

For the Navy and Marine Corps, that philosophy informs the way we acquire our ships, aircraft, armored vehicles and weapon systems. In other words, the Navy that "sleeps on its ordnance" is a Navy that must understand the technical details of its weapons and platforms long before, and after, industry is contracted to produce them. That culture and expectation of technical ownership is partly what couples the Navy requirements community closely to the Navy acquisition community, and vice versa.

It is also important to the Department of the Navy to understand how technical requirements drive detailed design, and in turn, drive costs. Today, cost is a requirement—on a par with warfighter requirements. In a speech at the Eisenhower Presidential Library in 2010, then Defense Secretary Robert Gates remarked that, "Without exercising real diligence, if nature takes its course, major weapons programs will devolve into pursuing the limits of what technology will bear without regard to cost or what a real world enemy can do."

Inarguably, the U.S. Navy and Marine Corps are equipped with, and will continue to build, the world's most technologically advanced naval warfighting systems. The increasing challenge is how to do so at a cost the nation can afford.

In 2009, the Navy modified its acquisition process to ensure there is no gap between the requirements and acquisition communities—to ensure, among other reasons, the Navy understands the relationship between requirements, technical feasibility and cost. The modified acquisition process, called "Navy Gate Reviews," requires the Navy *operational requirements leadership* and *acquisition leadership* to agree, and repeatedly affirm that agreement throughout the development, acquisition and sustainment of a system. A misalignment between requirements

Stackley *is Assistant Secretary of the Navy for Research, Development and Acquisition.*

and acquisition can be the most expensive part of a weapons system—inducing unnecessary costs associated with redesigns, retests, schedule delays and even cancellation. The Navy uses Gate Reviews to eliminate that misalignment early in a program, and to check alignment regularly.

Each "gate" is co-chaired by the Navy's Acquisition Executive and the Navy's senior military requirements officer. In all, there are six gates. The first three are chaired by the Chief of Naval Operations or his senior military requirements officer (co-chaired by the Acquisition Executive) and ensure that warfighter requirements are well understood and can be translated into technical requirements that the acquisition community can affordably achieve in the commercial or defense marketplace.

Secretary of the Navy for Research, Development and Acquisition [ASN(RD&A)]) co-chair a quarterly "Provider Forum" to review and align their respective priorities with the SYSCOM leadership. The agenda may include items such as workload priorities, contracting performance, cost of doing business, engineering capacity and performance, maintenance backlog priorities or research-and-development priorities and alignment. In each case, the result is Service Chief and Acquisition Executive alignment with the Providers.

A third important element of ensuring, and maintaining, alignment between Navy requirements and acquisition is the role of the Principal Military Deputy—a three-star position staffed to ASN(RD&A). The Navy has adjusted the responsibilities of the Principal Military Deputy to include a direct supporting

Requirements that are well informed by a thorough assessment of technical feasibility and a realistic cost estimate are inherently at lower risk of cost or schedule overrun or performance shortfalls during program execution.

The last three gates are chaired by the Navy's Acquisition Executive (co-chaired by the senior military requirements officer) and ensure that the technical specification, statement of work, and Request for Proposal (RFP) have accurately translated the warfighter's requirements into an acquisition approach that is executable, affordable and agreeable across acquisition and requirements leadership.

The Navy's acquisition system relies heavily on in-house Navy "Providers" that provide science, engineering, testing, contracting, legal, organic depot/maintenance, logistics, cost estimating, and financial management to the acquisition of weapons systems, platforms and services. These Navy Providers acquire the material and services that comprise the Fleet and support its operations. The Fleet is best served when Navy Providers are delivering products and services aligned to the priorities of their dual operational and acquisition reporting chains.

The Navy has more than six major Providers, typically called Systems Commands (SYSCOMs), that comprise more than 100,000 people—all providing the necessary material products and services that support the operational Navy (the Fleet) and Navy acquisition.

To maximize alignment of Navy SYSCOMs with the Fleet and acquisition, the Vice Chief of Naval Operations (VCNO) and the Navy's Acquisition Executive (the Assistant

responsibility to the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps, to keep the Service Chiefs informed of acquisition developments in the day-to-day business of the Navy and Marine Corps and ensure that the Service Acquisition Executive stays informed of Service Chief requirements and priorities. In short, working to ensure acquisition and requirements priorities remain aligned.

Arguably, requirements definition is the most critical phase in determining the successful outcome of a major weapon systems program. Requirements that are well informed by a thorough assessment of technical feasibility and a realistic cost estimate are inherently at lower risk of cost or schedule overrun or performance shortfalls during program execution. Accordingly, it is critical that the acquisition arm, which will be accountable for delivering to the requirements defined for a weapon system, is embedded in the requirements definition process to provide its best assessment of technical feasibility, cost and risk in the course of defining those requirements.

Perhaps no single program better exemplifies the critical importance of close partnership and alignment between requirements and acquisition than the Navy's future ballistic missile submarine (SSBN) program, the Ohio-class Replacement (OR). It is a daunting task to define the requirements for the first new-design SSBN in 40 years, with a priority placed on weapon system performance and submarine survivability, with a first-deployment date chiseled in stone, with a service life

(for the class) that extends to 2080, and with a cost that will dominate the Navy procurement budget throughout the two decades of producing the 12 boats of the class.

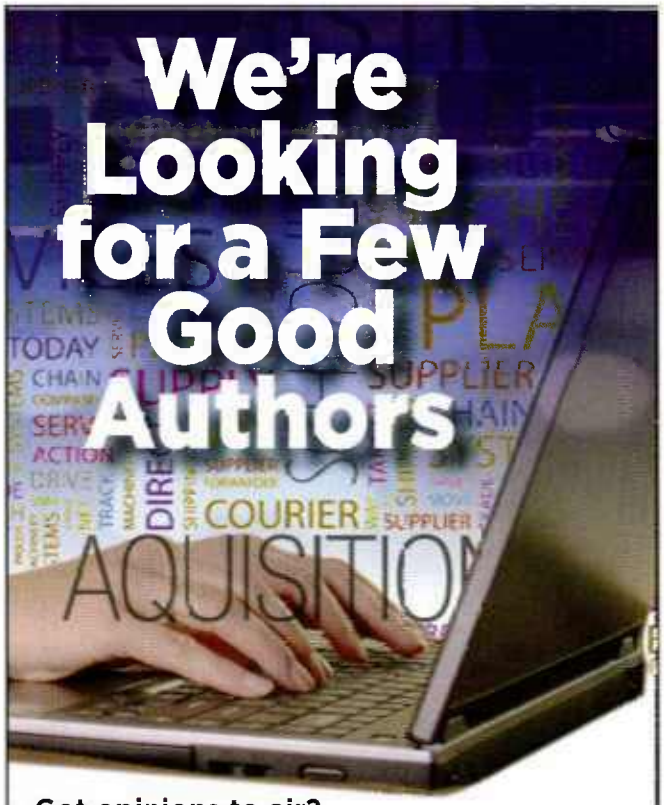
The first pass on OR requirements was jointly rejected by the CNO and ASN(RD&A) at an early Gate Review chaired by the CNO, for reasons of technical risk and cost. Years were spent by the requirements and design communities iterating on the OR technical requirements until arriving at the irreducible minimum set that promised to deliver the degree of survivable, reliable at-sea strategic deterrence required by the nation at the best cost with high confidence of execution. Today, the program is executing on cost and schedule in the design phase, with further cost-reduction measures in place and close oversight of progress and performance by the combined requirements and acquisition team through a disciplined Gate Review process.

While the OR program is unique, the process and partnership between requirements and acquisition employed on OR are not unique. The same teamed approach in pursuit of an affordable, high water speed amphibious combat vehicle to replace the canceled Expeditionary Fighting Vehicle made it clear to the Commandant that the requirements for such a capability were beyond our current reach due to cost and risk. As a result, the Marine Corps is proceeding with an extremely capable and affordable Amphibious Combat Vehicle that will meet near-term requirements, while continuing to mature technologies and tactics to meet the long-term objective for high water speed.

Similarly, the requirements, budget, design and acquisition approach for the Navy's first fixed-wing unmanned carrier-based aircraft have been formulated by a combined requirements/acquisition team that has been partnered since initiation of the development effort, with approval of the requirements through design specifications by way of Gate Reviews co-chaired by the CNO and ASN(RD&A). This process is perhaps best demonstrated by the combined Navy-Marine Corps efforts on a future amphibious ship, LX(R), to replace Navy's aging Landing Ship Dock (LSD-41) Class. The requirements and acquisition organizations across both Services and the Secretariat are partnered through each step of the process. They provide high-confidence recommendations—on the ship's requirements, the design to meet those requirements, and the cost to build that design—to the CNO, the Commandant, and ASN(RD&A) co-chairing the program's Gate Reviews.

Our mandate is to properly define and seamlessly transition from requirements to designing, building, testing and fielding —and to do so within agreed budgets and schedules based on realistic estimates. This necessitates unity of purpose and action between the requirements and acquisition organizations each step along the way. And it all begins at that first gate, with getting the requirements right.

The author can be contacted through **brian.a.metcalf@navy.mil**.



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Tasked and Ready

The Army's Commitment to the Better Buying Power Program

Heidi Shyu

The Army is charged with maintaining readiness and technological overmatch in an era of increasing threats and decreasing budgets. Since 2011, the last full year of engagement in both Iraq and Afghanistan, the Army's Research, Development and Acquisition (RDA) base budget has decreased by one-third, with fiscal year 2015 funding now at $20 billion. This decrement

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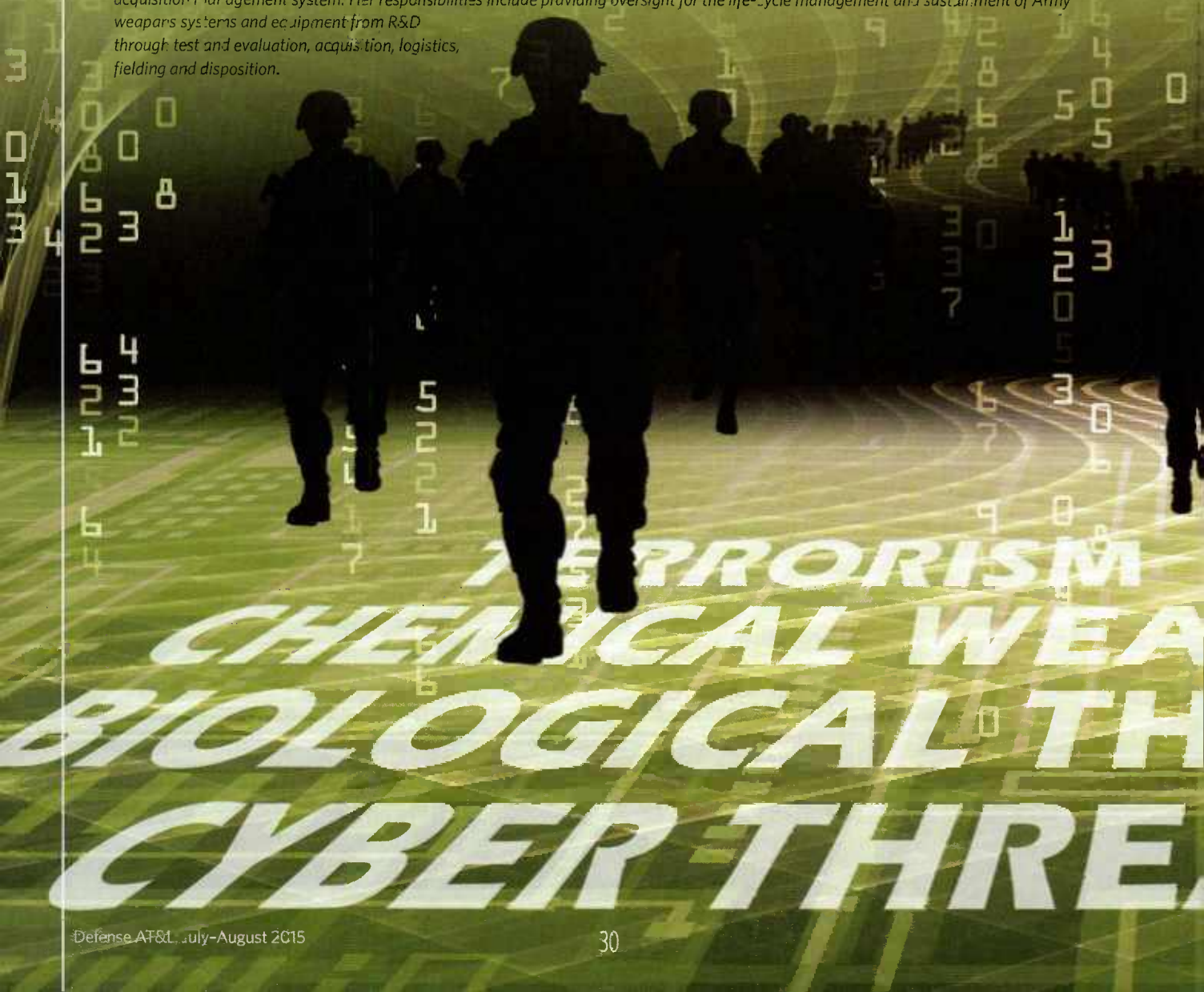
Shyu *is the Assistant Secretary of the Army for Acquisition, Logistics and Technology, a position she has held since Sept. 21, 2012. As the ASA(ALT), she is the Army Acquisition Executive, the Senior Procurement Executive, the Science Advisor to the Secretary of the Army, and the Army's Senior Research and Development (R&D) official. Shyu leads the execution of the Army's acquisition function and the acquisition management system. Her responsibilities include providing oversight for the life-cycle management and sustainment of Army weapons systems and equipment from R&D through test and evaluation, acquisition, logistics, fielding and disposition.*

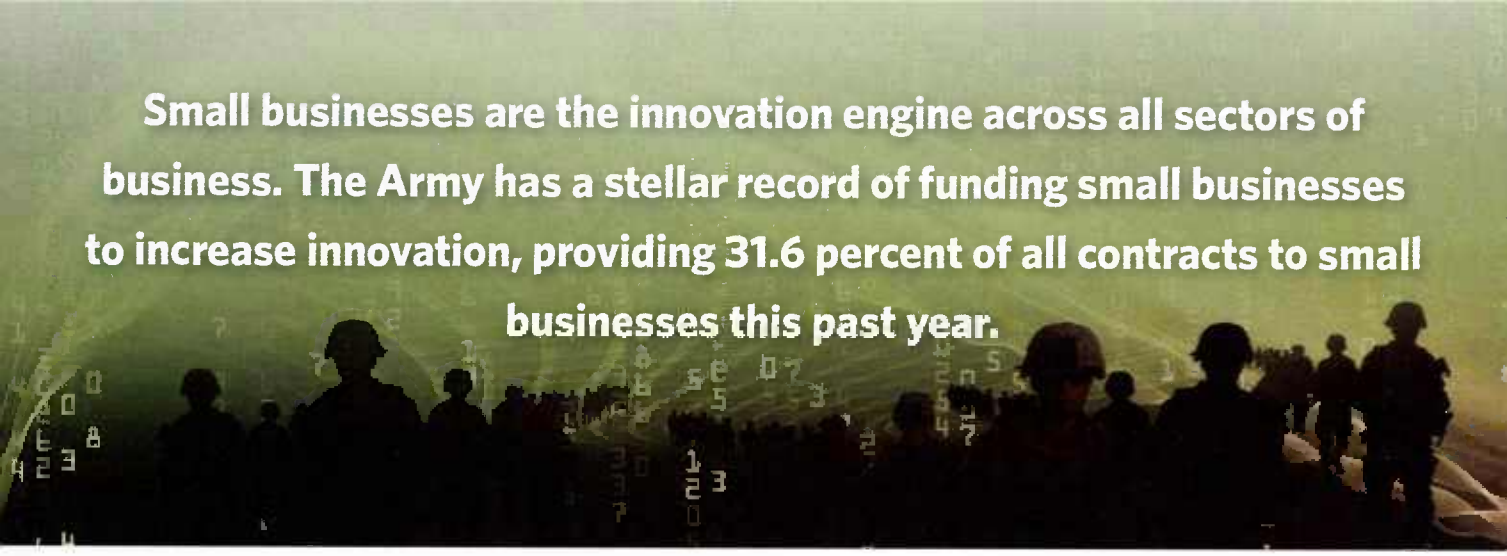


has necessitated cancellation of certain programs, and has stretched other programs' schedules. In addition, per-unit equipment costs have increased as procurement quantities have dropped.

These funding reductions present a significant challenge to the Army. How does the Department of Defense (DoD) ensure its technological superiority while maintaining, sustaining and resetting equipment coming out of theaters of operations? In addition, the Army must continue to support a diverse set of operations: the destruction of Syrian chemical weapons; training Afghan combat troops; supporting the international fight against Ebola; and countering the full spectrum of hostile threats, which include adversaries as isolated as individual terrorists and as large as nation-states. Our portfolio must span aviation, ground vehicles, missiles, ammunition, tactical command and control, communications, simulations and training, soldier systems, enterprise business systems, chemical and biological defense, and elimination of chemical and biological weapons. This breadth of portfolios coupled with significant funding and manpower reductions posed by sequestration results in very challenging trade-offs.

Better Buying Power (BBP) represents a vital step in tackling these challenges. BBP 1.0 and 2.0 focused on getting the best value for the government, establishing should-cost across programs; negotiating the best type of contracts with industry; and increasing training for the acquisition workforce. BBP 3.0 builds on these past successes, with a focused emphasis on achieving dominance through innovation and technical excellence. As technologies continue to evolve rapidly, the Army must work to rapidly insert and adapt cutting-edge capabilities into its Programs of Record (PORs). Such actions will ensure that our soldiers maintain technical overmatch well into the future.

In parallel, the DoD is tackling the cumbersome aspects of the acquisition life cycle. Working across the Services,



the DoD has provided Congress with initial legislative proposals designed to eliminate burdensome documentation and streamline bureaucratic processes. This is the first step toward acquisition reform.

Acquisition Reform

Over the last several decades, many major studies were conducted on acquisition reform. The issues addressed included cost growth, unrealistic requirements, lack of accountability, ponderous bureaucracy and lack of adequate training. Unfortunately, many of these efforts served only to increase bureaucracy, further burdening the process with added oversight. Ironically, activities intended to improve the acquisition system failed to fundamentally overhaul the cumbersome process.

A part of the failure was due to an inability to concede that defense acquisition must develop ever-increasingly complex state-of-the-art systems intended for operations in very diverse system-of-systems environments across the globe while countering potential threats. These complex systems must interoperate with legacy systems and provide the level of security typically not available off-the-shelf in the commercial sector.

Several other internal and external factors have negatively impacted our acquisition process. Numerous stovepiped stakeholders across the Army and DoD all have separate vested interests, making the serial decision and approval process protracted and drawn out. Budget instabilities under sequestration have further impacted programs by stretching out program baselines and increasing cost. Additionally, sequestration has created higher attrition rates of civilians who seek more financial stability rather than face potential furloughs.

The advent of BBP, therefore, is a welcome means to address some of these issues, realizing necessary efficiencies through affordability, cost control, enhanced competition and elimination of unproductive processes and bureaucracy. The DoD's efforts in this regard have already realized improvements, and continued implementation should only produce additional gains.

Under the auspices of BBP, the Army is working to properly address the complexities of acquisition: reexamining its statutory and regulatory requirements, the reduction of which will improve responsiveness and agility; conducting a comprehensive review of Army acquisition policies to streamline duplicative occurrences; and assessing and implementing proper contracts to better incentivize industry.

Army Innovation

Despite significant reductions to the RDA budget, the Army has protected Science and Technology (S&T) funding, its "seed corn for the future." In addition, the Army has improved its investment strategy continuously by implementing a 30-year planning process, the Long-Range Investment Requirements Analysis (LIRA) over the last three years. We have engaged with the Intelligence Community to better understand the evolving threat picture, assessed the DoD strategic guidance, compared needs with current program-of-record capabilities to define gaps, identified technology insertion opportunities in current and new programs of record, then examined ongoing sustainment needs from a total-life-cycle perspective. The Army continues to identify critical technologies across all portfolios spanning from the material level up to the system-of-systems level. We then look for program-of-record insertion opportunities.

Small businesses are the innovation engine across all sectors of business. The Army has a stellar record of funding small businesses to increase innovation, providing 31.6 percent of all contracts to small businesses this past year.

The Army continues funding more than $400 million in basic research annually. The vast majority of that $400 million goes toward funding innovative research in universities across the United States.

BBP 3.0 will help us develop metrics to assess the quality of DoD research and measure how well we transition technologies into programs of record. We continue to assess flexible strategies to adapt new commercial and DoD technologies into our products.

Industrial Base

The Army cannot realize the vision for BBP without the strong support and collaboration from the Defense Industrial Base. The innovative ideas from both the defense and commercial industry provide the foundation of new systems from concept development through design, development, production, and integration and test. The Army has increased its engagement with industry, at the program manager (PM) and program executive officer (PEO) level, through daylong Industry Day events in which program roadmaps are shared. In addition, one-on-one engagements with program managers provide industry partners an opportunity to gain insight into the Army's needs and processes while providing PMs with insight into different company's capabilities. Requests for Information (RFIs) are solicited numerous times to better understand what industry is developing and able to produce prior to releasing a draft Request for Proposal (RFP). Large industry partners continuously seek out innovation from small businesses to secure a competitive edge for their systems.

Association of the United States Army (AUSA) events bring together Army leadership with industry. Interactions with industry on its product development provides valuable insight and dialogue across all echelons of the Army. International displays and exhibits provide additional insight into capabilities being developed in other countries.

BBP 3.0 will help us gain greater visibility into commercial sector developments and better leverage innovative contracting mechanisms, thereby enabling commercial companies to work with DoD.

BBP and the Army of the Future

The Better Buying Power 3.0 initiatives, especially as they work to streamline bureaucratic acquisition processes and facilitate the insertion of innovative technology into our programs of record, has the potential to rapidly deliver the next generation of overmatching capabilities to our warfighters.

The author can be contacted through Anita Odom at **anita.j.odom.civ@mail.mil**.

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 civilian and military program managers for major defense acquisition programs (MDAPs) and major automated information system (MAIS) programs. This announcement lists a recent change of leadership.

Navy/Marine Corps

Bruce Urbon relieved **Valerie Carpenter** as program manager for the Navy Enterprise Business Solutions (PMW 220) on March 2.

Reward Industry for Innovative Outcomes

RADM Allie Coetzee, USN

The overarching theme of Better Buying Power (BBP) 3.0 is achieving dominant capabilities through technical excellence and innovation. To help achieve these goals, the Department of Defense (DoD) is reexamining business arrangements, so we can: (1) attract and enable a broader array of industry participants; (2) employ techniques that will motivate industry to deliver tangible results that advance combat capabilities; and (3) recognize that deliberate speed is required to stay ahead and remain on the cutting edge.

Attract and enable industry participation.

The DoD recognizes the need to reach out to firms that have not historically done business with the DoD. We also recognize there is a wealth of innovation in these firms. How, then, can we engage with these nontraditional suppliers, entrepreneurs and inventors and entice them to offer their innovative products and services?

Generally, nontraditional defense contractors avoid DoD contracts, pointing to the excessive federal and defense regulations that drive potentially unreimbursed costs and impose an undesired intrusion into private industry business models. Section 866 of the National Defense Authorization Act for fiscal year (FY) 2011 gave the DoD pilot authority to acquire "military purpose non-developmental items" from nontraditional defense contractors. However, given the current statutory criteria for its use, the DoD has not yet been able to take advantage of this authority, as written. We are engaging with Congress to see how this authority could be amended to allow broader application in this arena.

Coetzee *is Acting Director of Defense Procurement and Acquisition Policy in the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.*

In the meantime, the DoD continues to promote streamlined statutory authority to acquire commercial items.

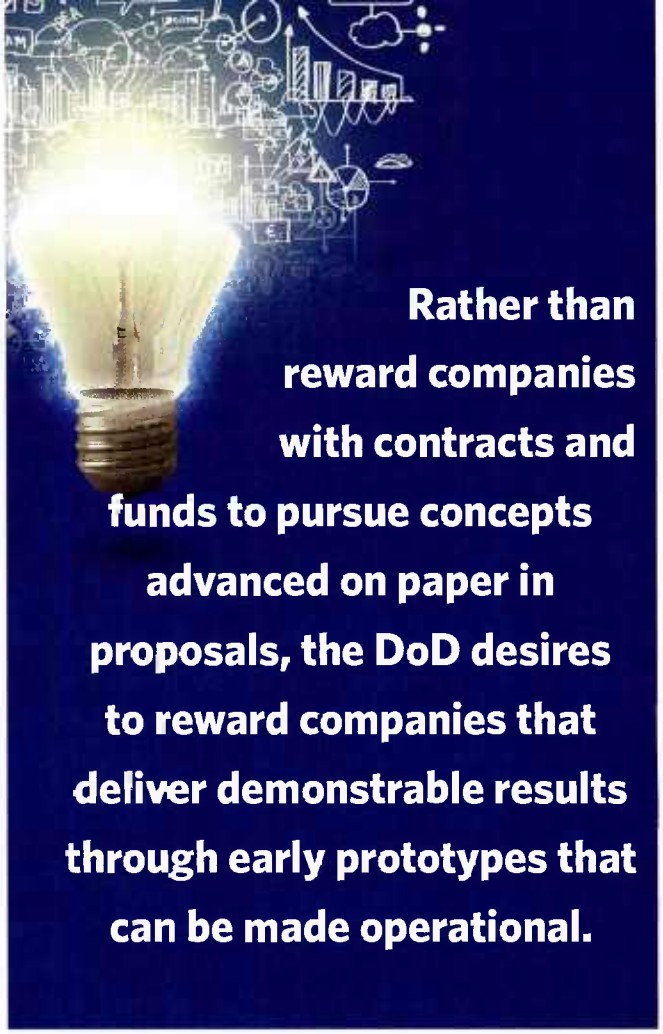
The DoD also has not taken full advantage of "other transaction" authority (OTA) for prototype projects. "Other transaction" refers to the authority under 10 United States Code 2371 to enter into transactions using an acquisition instrument "other than contracts, grants or cooperative agreements." OTAs generally are not subject to federal laws and regulations governing procurement contracts. When selectively used, this authority can engage nontraditional firms by allowing innovative business arrangements or structures that otherwise would not be feasible or appropriate using standard acquisition instruments. Because OTAs are not bound by the typical constraints of traditional procurement contracts—particularly those around intellectual property—they allow the DoD to attract a wider range of potential industry partners.

Employ techniques that will motivate industry.
In recent forums, Defense Secretary Ashton Carter and Under Secretary of Defense for Acquisition, Technology, and Logistics Frank Kendall have expressed the DoD's concern over the risk of losing our technological edge. Advancing our combat capabilities through innovation is something we must do. If the DoD does not succeed, we risk losing our technical edge and degrading our national security.

When considering how the DoD structures its contracts for innovation in research and development (R&D), one would observe that the government typically absorbs the risk of performance by awarding best-effort, cost-reimbursable contracts. While that approach should remain the norm for mainstream R&D and developmental programs, the DoD should consider a paradigm shift away from the "best efforts" default and toward rational use of other techniques. Rather than reward companies with contracts and funds to pursue concepts advanced on paper in proposals, the DoD desires to reward companies that deliver demonstrable results through early prototypes that can be made operational.

During his tenure as Deputy Secretary of Defense, David Packard advanced prototyping as a means to leverage "small, efficient design teams and a minimum amount of documentation" to obtain significant capabilities at relatively little cost. In the foreword of its June 30, 1986, report, the President's Blue Ribbon Commission on Defense Management—better known as the Packard Commission—concluded that increasing emphasis on prototyping should allow us to "fly and know how much it will cost before we buy." Prototyping is a familiar concept, and the structuring of acquisition instruments for these efforts has evolved considerably. However, erratic budget cycles have limited the DoD's ability to fully employ prototyping over time.

Recent interest in prototyping and other similar models led the White House Office of Science and Technology Policy and the Office of Management and Budget's Office of Federal



Procurement Policy in August 2014 to publish a list of innovative contracting case studies. Noteworthy techniques that were highlighted included OTAs, incentive prizes, and challenge-based acquisitions.

"Incentive prizes" allow agencies to conduct a competition where the winner receives a prize for developing a viable solution for a stated need. The America COMPETES Reauthorization Act of 2010 provides statutory authority for incentive prizes. This allows the DoD to reach beyond traditional defense contractors and increase the number of entities working to solve tough problems, thus increasing the potential for innovation.

The "challenge-based acquisition" model builds on this latitude, fostering originality in industry by being less prescriptive and allowing industry to propose any solution that meets the challenge criteria. Payment is rendered only for successful solutions, resulting in numerous opportunities to leverage the capabilities developed for the challenge.

The DoD's 2014 report on the Performance of the Defense Acquisition System concluded that "Contractual incentives are effective if (1) we use them; (2) they are significant, stable, and predictable; and (3) they are tied directly to our objectives." Likewise, we must bear these three tenets in

mind as we employ these techniques to motivate industry to innovate.

Deliberate speed required to stay ahead.

Finally, the DoD must exercise deliberate speed to acquire innovative and dominant capabilities. This requires modified thinking about the DoD's contracting processes. As a rule, we have routinely applied procurement administrative lead time (PALT) to measure the time lapse between a contracting office receiving a complete acquisition package and completing the procurement action. Frequently, PALT was used to reallocate, or even reduce, resources for better procurement office performance. When applied in a vacuum, PALT can be an organizationally damaging metric if we fail to recognize that often our best deals are closed only after we have taken the time to meticulously assess a proposal, develop a reasonable negotiation objective, and exercise the patience necessary to negotiate to the objective.

There certainly is more to deliberate speed than cleverly navigating bureaucracy for the sake of timely deals. The DoD's processes need to encompass a new, more aggressive time cycle regarding innovation on an ever-evolving technological capability. How can the DoD capitalize on narrow windows of opportunity to inject cutting-edge capabilities that enable our warfighters to remain ahead of our adversaries? Value-engineering change proposals (VECPs) offer one method for rapidly injecting innovation into an existing contract. Another is competing requirements that follow an open systems approach using modular design, which may increase delivery of capability to the warfighter on a faster development timeline. In this same vein, Congress has endowed the Secretary of Defense with Rapid Acquisition Authority (RAA) to waive certain provisions of law, policy, directive or regulation to address any combat capability gap that has resulted, or is likely to result, in combat casualties. This process, managed by the Director of the Joint Rapid Acquisition Cell and governed by DoD Directive 5000.71, allows sponsoring organizations to award a contract in as little as 15 days from the Secretary's RAA determination.

Conclusion

Regardless of whether it is maintaining parade fields, developing the next data management capability or launching the next generation of communication satellites into space, the DoD strives to define work in such a way as to reward industry for successful outcomes. BBP 3.0 takes this to the next level by focusing on achieving dominant capabilities through technical excellence and innovation. We recognize the DoD already has several vehicles available that streamline our burdensome processes and facilitate entry into defense contracting for nontraditional industry partners. We need to capitalize on every opportunity to employ these processes to reach out, attract and reward industry partners for delivering the latest and greatest innovations that meet emerging warfighter needs and maintain our technological edge.

The author can be contacted through **robert.r.jarrett4.civ@mail.mil**.

Sustainment and Logistics in Better Buying Power

David J. Berteau

From the first issuance of Better Buying Power (BBP) in 2010, its key sustainment initiative has focused on Performance-Based Logistics (PBL). With the updated guidance for BBP 3.0 issued April 9, it is worth expanding the view of these updated initiatives through the sustainment prism. This article finds that sustainment permeates the entire set of BBP initiatives and offers substantial contributions to its overall theme of "Achieving Dominant Capabilities through Technical Excellence and Innovation." Sustainment also underpins the earlier focus of BBP on affordability, on should cost, and on smarter ways to procure services and increasing the professionalism of the workforce. Let's look at how sustainment does that.

Performance-Based Logistics

For years, the signature sustainment initiative under BBP has been Performance-Based Logistics (PBL). The latest guidance from Under Secretary of Defense for Acquisition, Technology, and Logistics Frank Kendall places additional management emphasis and attention not just on increasing PBL but also on ensuring its effective use. Specific actions include developing common ways to measure PBL effectiveness (including benefits and savings), using those measures to track results, and reporting those results quarterly. Regular updates on PBL implementation

Berteau *is Assistant Secretary of Defense for Logistics and Materiel Readiness. He is responsible for ensuring logistics support to the United States Armed Forces.*

also will include determinations of and plans for the accessible market by Department of Defense (DoD) Component as well as progress toward those plans. My office will update the *PBL Guidebook* by October 2015 to improve developing, reviewing, approving and contracting for PBL arrangements.

For PBL, the challenge for today is more on "ensuring" effective use than solely on increasing the number. As Kendall noted, in addition to counting PBL arrangements, "We want to make sure that the ones we have are effective, and we will probably increase our use, but we need to do it in cases where it makes sense, and we need to make sure it's being done well." PBL provides insight and information that can affect costs and performance throughout the sustainment cycle. Let's look at some of the ways to do that.

Enabling Innovation in Sustainment

Operational logistics successes of the last 14 years have shown that logistics is a significant U.S. competitive advantage. Maintaining that advantage will require DoD to improve its ability to incorporate logistics technology and process innovation from around the world. Several BBP initiatives can incorporate actions that will help foster innovation in sustainment.

Two of these are removing barriers to commercial technology utilization and emphasizing technology insertion. Expanding access to global logistics innovation can eliminate unproductive processes, increase opportunities for competition and enhance affordability. Specific actions such as taking better advantage of commercial technology refresh cycles can apply to post-production systems as well as systems in development. Technology refresh for components, subsystems and software may offer powerful opportunities for reducing life-cycle costs long after systems have been fielded.

Another initiative that offers potential sustainment benefits is increasing the use of Modular Open Systems Architecture. Under DoD Instruction (DoDI) 5000.02, program managers (PMs) are responsible for applying open systems approaches in product designs wherever feasible and cost-effective. While costs often occur during development, savings from open systems approaches appear in production and in reduced life-cycle sustainment costs, by enabling competition for upgrades, facilitating reuse for additional missions, and supporting technology insertion and software upgrades. Open systems guidance being developed by the Office of the Secretary of Defense (OSD) and the Military Departments will incorporate sustainment goals.

Affordable Sustainment and Should Cost

Affordability remains a core initiative in BBP 3.0. Affordability caps, should-cost based program management, and improved cost estimating have stabilized programs across DoD. The March 2015 Selected Acquisition Reports (SARs) show that, for covered major defense acquisition programs, the DoD gained $10.6 billion in buying power (paying less in procurement and research and development for the same programs). However, significant elements of overall life-cycle costs have not kept pace with this decline, based on the initial internal logistics cost baseline. In fiscal year 2014, maintenance costs continue to rise as a percentage of total logistics costs, while transportation costs decline (due in part to falling fuel costs). Extending the positive results of affordability cost caps and should-cost program management to sustainment costs is a major focus of BBP 3.0 implementation.

Historical data show that design decisions made in the Concept Phase determine 70 percent of the total life-cycle costs, climbing to 85 percent by Milestone B. This means that, historically, reducing life-cycle costs requires trade-off decisions during system development. But in the recent past, such decisions have been inadequate to control life-cycle costs. In addition, Operations and Support (O&S) costs comprise 60 percent to 70 percent of total ownership costs for most programs, putting a premium on finding ways to lower O&S expenditures during design and development phases.

Systems in design today hold promise for a better future. DoDI 5000.02, "Operation of the Defense Acquisition System," requires under Enclosure 6 (Life-Cycle Sustainment) that PMs employ a should-cost management and analysis approach to identify and implement system and enterprise sustainment cost-reduction initiatives. Enclosure 6 also tasks DoD Components to:

- fully consider sustainment factors
- reduce O&S cost through system design early in development
- assess product support performance periodically to prevent O&S cost growth
- use system modifications to reduce ownership costs.

Sustainment affordability caps are established at Milestone B, based on a per unit annual cost, but since DoD has been tracking and reporting such costs under BBP for only a few years, a relatively small number of systems have breached the O&S caps.

The majority of annual O&S costs are incurred by systems already fielded, not those currently under development or in production. For these systems, there are fewer opportunities for design-affected changes that will reduce life-cycle costs. OSD Logistics and Materiel Readiness is assessing sustainment models among the military services, to identify cost-reduction opportunities and incentives for lower O&S costs. Success will depend in part on adequate data and reporting to support informed decisions and actions.

Sustainment Information and Data Security

Successful logistics operations have always depended on timely, comprehensive and accurate information. The ideal arrangement for DoD would be an integrated digital product data environment covering product design to product support and fostering decisions with an understanding of their life-cycle cost implications. Such a data environment would help bridge gaps between the engineering and product support analyses and thereby promote affordable system effectiveness via continual trade-offs throughout a weapon system's life cycle.

Even if DoD were to establish such an integrated data environment, better decisions would be undermined by cyber threats. BBP initiatives will help address these problems for sustainment by focusing on strengthening cybersecurity across the product life cycle.

For decades, DoD logistics information systems have been a weak link in cybersecurity, even before the term was used. In part, this is because of the size of logistics databases and the cost to secure them, but it's also because logistics activities need to interoperate with commercial suppliers both within the United States and across the global commercial marketplace. Strengthening cybersecurity throughout the product life cycle is critical for DoD, but it will require action across the global supply chain. BBP 3.0 accelerates those actions, but DoD cannot achieve success without the private sector strengthening its own cybersecurity.

On April 23, 2015, Secretary of Defense Ashton Carter addressed both information systems and networks: "[T]o defend DoD information networks, secure our data, and mitigate cyber risks to military missions, [we need to be] building a single security architecture that's both more easily defendable and able to adapt and evolve to mitigate both current and future cyber threats. This is to replace the hundreds of networks—separate networks—that we now operate in the Department of Defense."

The loss of critical logistics technical information through cyber vulnerabilities undermines U.S. technological superiority in three ways. First, these losses can help an adversary develop similar capabilities or countermeasures. Second, sustainment costs for U.S. forces will increase, both to enhance data security and to counter adversary developments. Third, increased sustainment costs will reduce funds available for national security technology investments needed elsewhere.

Conclusion

O&S costs are determined by the product support strategy defined in the development phase based upon reliability, availability and maintainability of the product. Increasing reliability and reducing cost requires trade-offs between system performance, availability, process efficiency, human factors and cost to maximize weapon systems operational effectiveness. Additionally, associated support and maintenance requirements need assessing for opportunities to incorporate logistics-related technologies to improve maintainability and reduce O&S costs.

BBP 3.0 emphasizes maintaining technological superiority, and a key component is sufficient resources to enable innovation and modernization. Addressing technology opportunities for sustainment parallel to system design can positively affect the affordability of our weapon systems and provide funds needed for innovation. DoD needs to illuminate the costs and benefits of decisions at every stage of system development, from design to post-fielding. Doing the analysis, providing the information and highlighting gains in reduced life-cycle costs from investments today can lead to the best decisions and trade-offs.

The author can be contacted at **david.j.berteau.civ@mail.mil.**

Market Research

Faster, Smarter and Predictive

Kenyata Wesley ■ *Farhad Chowdhury*

Through implementation of the "Increasing Small Business Participation, Including Through More Effective Use of Market Research" Better Buying Power (BBP) 2.0 initiative, several actions were completed to support improving market research capability within the Department of Defense (DoD).

Although acquisition professionals perform market research today, they lack easy access to the decision-making information required at each instance where market research is required. In BBP 3.0, we sought to build on BBP 2.0 outcomes to broaden the use of effective market research, develop the tools necessary for all stakeholders and ultimately establish more efficient yet effective processes to reinforce market research as part of the culture of producing innovative solutions for the DoD. The goal is to identify and accelerate the correlation between the DoD's technological needs and the capabilities of organizations in the Defense Industrial Base (DIB).

The purpose of market research is to enhance affordability, to increase productivity and to identify and scale efficiencies in the DoD acquisitions process with the desired goal of providing better value to both the taxpayer and the warfighter. An effective market research process will allow the DoD to (1) buy smarter, (2) increase small business participation both as prime contractors as well as subcontractors, (3) increase competition, (4) obtain better pricing, and (5) maintain high quality in both products and services acquisitions.

Wesley *deputy director for technology and innovation, is acting director of the Department of Defense Office of Small Business Programs (OSBP), where* **Chowdhury** *provides senior management support.*

Out of this BBP 3.0 initiative, the Office of Small Business Programs (OSBP) is in the midst of developing a set of tools to drastically redefine and enhance all elements of market research by creating a Big Data solution that ingests commercial, federal and DoD data sources. The system maps and integrates 20 years' worth of buying behavior data with forecasting data. The system over time will apply predicative analytics, trend analysis to identify at-risk areas within the small business industrial base. By ingesting near-real time data about the DIB, trend analysis, risk factors and future buying needs, the tool identifies potential risks and efficiencies.

The Market Research Center of Excellence (MRCOE) platform also is a collaborative tool. Every year more than 500,000 contracts are awarded by the DoD. Any acquisition that costs more than $25,000 from the inception of the acquisition process to award has associated documentation: a Market Research Justification Report (MRJR). This system not only will automate major components in the generation of that document but also house MRJR in one location. The system will enable the acquisition workforce to learn together, from issuance of a request for information to a request for proposals and from the interaction between our workforce and industry.

Most people do not know that market research as defined by the Federal Acquisition Regulations (FAR) is good for 18 months. By creating this central repository and suite of tools, the DoD can leverage previously performed market research, saving both time and effort by acquisition professionals and removing redundancy in the overall acquisition process.

The feature set of the Market Research Collaborative Effort Environment (MCREE) includes:

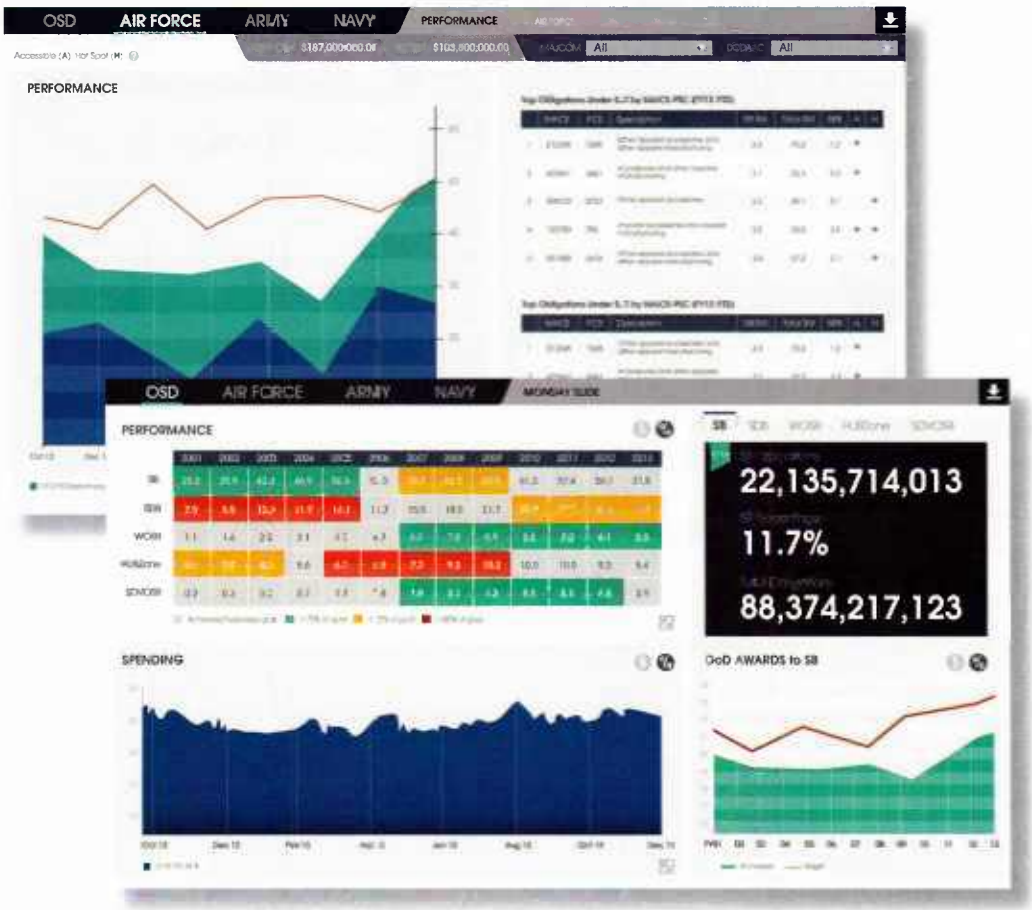
- Progress from creating a market research platform to enhancing market research capability, revolutionizing performance management, optimizing analytics and enhancing engagement between the DoD and the industrial base.
- Development of an MRCEE that automates and streamlines the entire process of market research, tracks the engagement with industry, auto-generates components of the market research report, and houses all the reports and market research in one location.
  - — Market Research Execution: Streamline the process of searching, identifying and engaging companies.
  - — Analytical Tools: Provide tools to the acquisition workforce to assess buying behavior and simplify the identification of small business opportunities.
  - — Goal Management: Provide a tool to manage small business goaling and allow for a more refined approach to goal-setting.
  - — Future Needs Forecasting: Provide a way to capture and centralize forecasting data internally.

In order to potentially round out the strategy for improving the market research process, the OSBP will study the feasibility of establishing a superior supplier program for small businesses using best practices gained from existing programs targeted to other than small business concerns. Lastly, OSBP will study the feasibility of rapid response technologies in order to provide market research capability, including consideration of the Air Force model of developing MRCEE subject-matter experts, and empower acquisition workforce members by providing them with exceptional training.

Description

Market research is the cornerstone of determining supply capabilities in DoD acquisitions; it is used to make key acquisition determinations, for examples, about the availability of capable companies, commercial items, potential bundling justifications, and how companies engage with the DoD. The data produced as a result of effective market research aid in ensuring the DoD capability and dexterity required to strengthen national security and deter threats.

Figure 1. Sample of Market Research Center of Excellence Database



Additionally, improved market research practices can lead to increased commercialization rates as richer business intelligence provides a more effective matching of needs to market capability.

The MRCEE offers a single portal—business.defense.gov—that provides tools to accelerate and enhance the engagement between industry and the acquisition workforce.

The portal will give industry a centralized location to access information, resources and tools to optimize their engagement with all levels of the DoD. We will engage industry through social media channels, forums and digital platforms, including mobile and tablet devices. Industry tools include a knowledge base, interactive online wizards and video-based training.

The acquisition workforce will have available a number of tools on business.defense.gov/apps—a management system to track performance and goaling.

Buying behavior analysis tools will provide the acquisition workforce with rich data and comparative analysis throughout the DoD.

The tools will house and consolidate industry, public and DoD data sources into one data warehouse. The data warehouse also will ingest data from external sources through approved integration and interaction between our system and other DoD systems. It ingests both structured and unstructured data, allowing users to search between relational data and documents in a seamless manner.

The tools automate, streamline and aid the acquisition workforce during the market research analysis with enhanced search capability across numerous data sources. The workforce can interact with industry immediately through the platform, via email broadcasts, surveys, webinars and scheduling calls and meetings.

The tool compiles the market research activity and industry engagement conducted on the platform and then auto-generates a market research report document for the user. That report can be edited and stored on the MRCOE platform.

That comprehensive data set of market research reports and activity then will be available to acquisition workforce members using the platform for their market research needs. This will have a significant impact in time and money. It will enable a qualitative improvement in market research analysis.

The platform will have one centralized dashboard that captures the interaction between the small business industrial

Governance for the Activity

- Federal Acquisition Regulation (FAR) Part 10
- Interim Department of Defense Instruction 5000.02
- (FAR 7.107) (15 U.S.Code 644(e)(2)(A))
- Fiscal year 2011 National Defense Authorization Act, Sec. 863 (Public Law No. 111-383)
- FAR 13.003(b)(1)
- Fiscal year 2010 Small Business Jobs Act, Sec. 1331 (Public Law 111-240)

base and the DoD from registration, interaction, engagement, award, grants and then after the award.

Effect on Industry

The forecasting tool saves costs and time for small business professionals, allowing more effective industry outreach and more efficient market research.

The tool enables assessment if and how we address the concerns of industry, attract nontraditional suppliers or serve the dynamic needs of a rapidly evolving industrial base. The information can be monitored and assessed in real time.

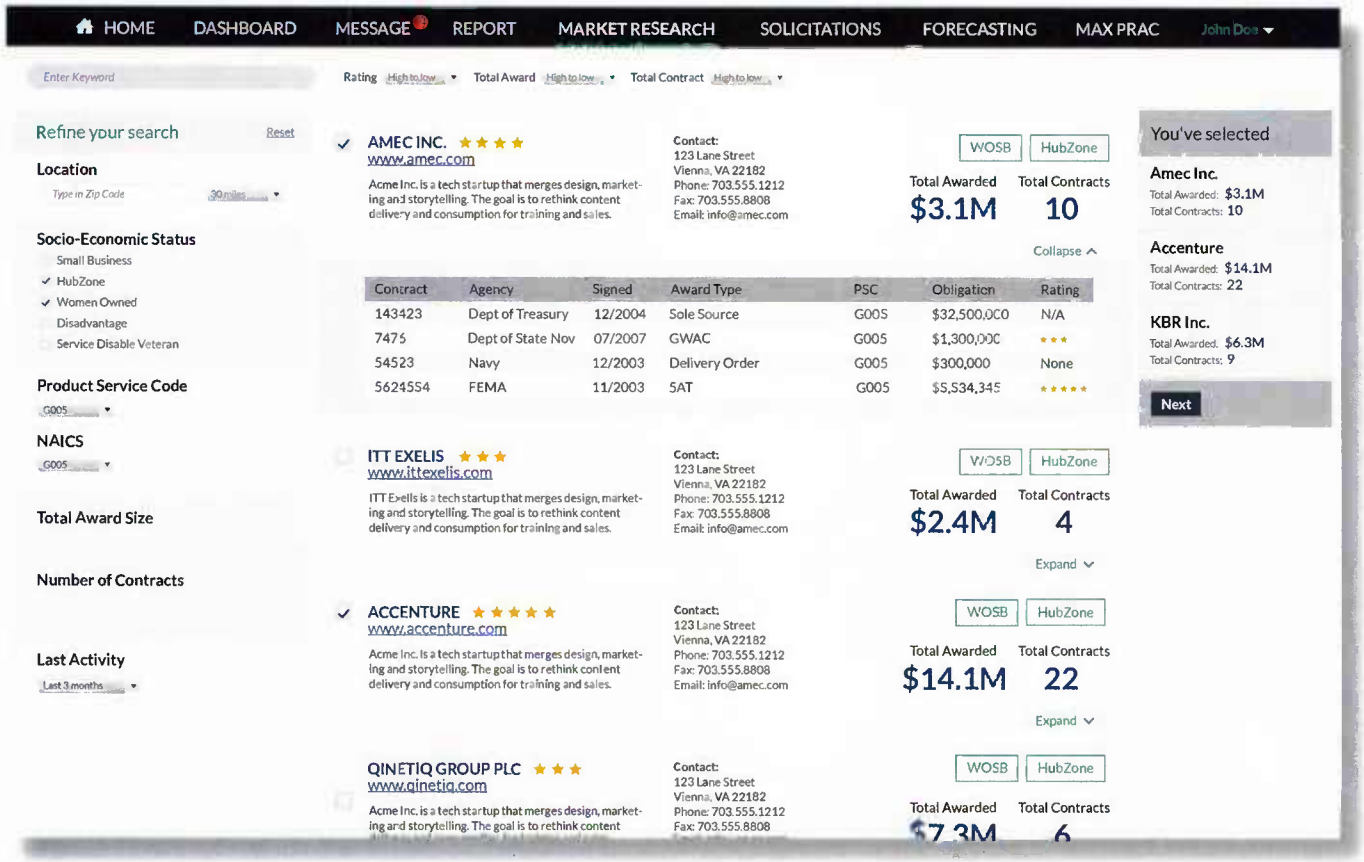
Figure 2. Small Business and Socio-Economic Performance

The forecasting tool allows industry—small businesses in particular—to understand the coming needs of the government and the contracts that will be available for competition. It increases small-business participation benefits to the DIB through increased competition and the resultant innovations.

Effect on DoD/Government/Taxpayer

The tool provides improved market research tools, processes and practices that will lead to the attraction of a larger and more qualified pool of talented companies, increased competition, cost reduction, and increased commercialization rates.

Figure 3. Market Research Platform



Forecasting allows DoD decision makers to prepare more accurate responses to projected capability requirements. A standardized, systematic approach to forecasting will improve the DoD's relationship with industry and lead to enhanced acquisition outcomes.

The proposed market research tool would provide richer and larger datasets to assist the acquisition workforce in identifying companies that address the DoD's needs. A user-friendly platform that aggregates data from a number of commercial, public and DoD sources would provide higher-quality information and improve access to nontraditional suppliers.

The initiative would streamline the process for assessing past performance, capabilities and comparative analysis across many data sources. It also would enable verification of the financial health, organizational structure, innovative capabilities and history of the organization, which together will improve commercialization success rates. And the initiative will Identify potential risks to the DIB. Supporting data will include labor hours saved, efficiencies gained, overhead reduced, etc.

Incentives are necessary to sustain the initiatives. In addition to the proposed policy development, incorporation of effective market research strategies, including use of the tools, into acquisition certification coursework would ensure that acquisition professionals have both the knowledge and skills to make use of the tools moving forward.

Metrics to measure results would include:

- DoD prime and subcontracting achievement
- Scholastic Aptitude Test goal achievement
- Improved effective competition rates
- Measurement of actual versus projected spending in Service-based portfolio groups
- Defense Acquisition University course completion rates
- Publication of policy guidance to institutionalize market research and set-aside procedures
- Commercialization rates

MRCOE will be released in three phases, with each phase building on additional functionality. MRCOE Release 1 will include automation of manual processes and a goal management system; MRCOE Release 2 will include industry engagement tools, analytical tools for acquisition workforce, and market research report generation. MRCOE Release 3 will include full transition of capability to strategic platform with analytics on utilization analytics and a consolidated repository of historical market research activities and reports utilized to enhance future market research activity.

The authors can be contacted at **Kenyata.I.wesley2.civ@mail.mil** *and* **Farhad.chowdhury.CTR@mail.mil**.

One More Time

Time Management for Those Who Don't Have the Time

Roy Wood, Ph.D.

This is the third short article in a series on time management that I've written for *Defense AT&L* magazine. I think it is important for acquisition professionals to manage time wisely. If you haven't figured it out yet, time is your most important resource—personally and professionally. Anyway, I know you're busy, so let's dive in. ...

The "To-Do" List

Do you use a to-do list as part of your routine? If not, you are missing out on a simple but highly valuable tool. Start one. It doesn't have to be elaborate—in fact, simpler is better.

First, find a half-hour of quiet time and write out all the things that you can think of that you need to do on a sheet (or a few sheets) of paper. Don't worry about the order of the tasks right now, when you might get to them, or how complex or time consuming they might be. Just write down everything you can think of as you think of it.

Wood *is acting vice president of the Defense Acquisition University.*

Look in your email for taskers you've received. Write 'em down; gather up all those scraps of paper and yellow Post-It notes and transfer the actions to your list; look ahead a week or two on your calendar and think about things you need to do to prepare for coming meetings and commitments. Write 'em down, and even add in those personal items you've been meaning to do (drop off your laundry, get a haircut or research prices on that new car you've had your eye on). Write those down too.

Don't get caught up trying to do any of the items yet, just get them written down. OK, done? Good. Bet you feel better about having all your to-do items in one place, don't you?

Now, review the list often during the day. As you get new tasks, add them to your list and mark those off that you get complete. Reviewing the list keeps the things you need to do front and center and, armed with this new awareness, you'll begin paring your list down and maybe even working off a few of those longstanding items you've been meaning to get to.

There's power in simply having a written list.

As you get more comfortable with your simple to-do list, you can add more bells and whistles in managing it. For that, I suggest you read David Allen's book, "Getting Things Done" (Penguin Group, 2001). Allen has some fabulous time-management tips that we frankly don't have time to get into here.

By way of a bonus tip ... when I was a program manager, I would keep my top 10 tasks written on a whiteboard in my office. That way, the most important tasks always were in sight and I could review them easily. One day, I found a subordinate sneaking into my office to copy down my list. I passed by and let her think she was unnoticed, but I kept using this stealthy delegation tactic throughout my tour.

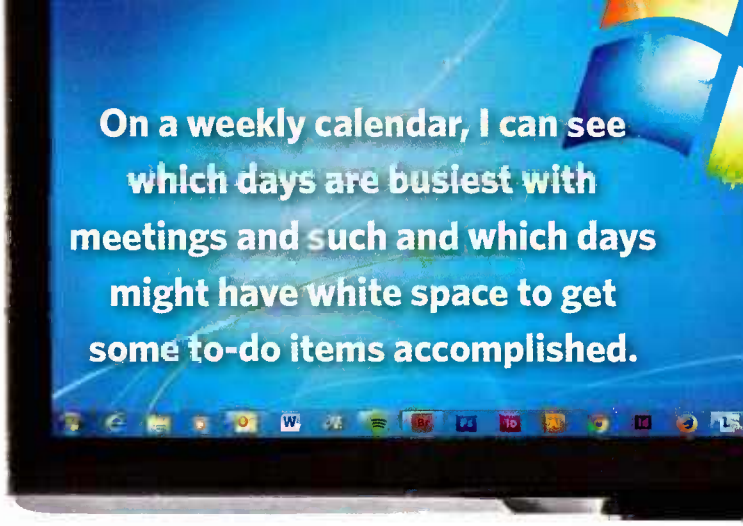
The Calendar

Everyone has a calendar, right? Are you using it to your best advantage? Here are some tricks that work for me.

First of all, have just one calendar for all your commitments—work and personal. Otherwise, you'll end up double-booking yourself and miss your daughter's lacrosse match.

Next, I recommend doing your calendar updates and planning on a weekly basis. I usually do this every Thursday or Friday for the coming week. On a weekly calendar, I can see which days are busiest with meetings and such and which days might have white space to get some to-do items accomplished. In addition to putting meeting commitments in the calendar, I add appointments with myself and block calendar time for specific to-do list tasks and projects (like writing *Defense AT&L* articles!).

Of course, once the week starts, all bets are off. Like your calendar, mine is pretty dynamic and changes are inevitable. I have learned to live with that, and be flexible in moving things around. I still try to work in as many to-do items as I can, making progress on them even if I don't have time to finish. At the end of every day, I take stock of what changed and what I accomplished, and update the rest of the week accordingly.



Delegating To-Do Tasks

If you manage people, chances are you can delegate a lot of your tasks. The challenge is to keep track of those tasks that other people are working on. The best way I have found is to keep a separate list of delegated tasks, along with the names of those responsible for them, and agreed-to dates for completions or updates.

It's easy to review this list weekly and note which tasks are due, then schedule short meetings, phone calls or emails with the responsible people to get updates on the tasks. Those that are complete can be crossed off on both the delegated and your master task lists, and new dates assigned to those that are not yet finished. I have found that following up regularly with subordinates keeps the pressure on for them to finish the work in a timely manner.

Summary

In this article, I've suggested that you create a master to-do list if you don't have one. The act of writing down the things you need to accomplish frees your brain from having to remember and declutters all those little yellow sticky-note reminders surrounding your computer monitor. I also suggest you preview and update your calendar on a weekly basis, blocking out some time for specific to-do items. Finally, when you delegate, continue to track the items until they are completed to your satisfaction.

Many of you know there are lots of "systems" and tools out there for managing your calendar and task lists. If you are just starting, though, paper works fine while you are shopping for automated solutions. But don't let finding the right tool be an excuse for further procrastination!

That's it. I hope you find these simple tips useful in helping you make the most of your most important asset—your time.

The author can be contacted at **roy.wood@dau.mil**.

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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 email to datl@dau.mil. Submissions must include each author's name, mailing address, office phone number, email address, and brief biographical statement. Each must also be accompanied by a copyright release.

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)*.

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Length
Articles should be 1,500–2,500 words.

Format
Send submissions via email as Microsoft Word attachments.

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