

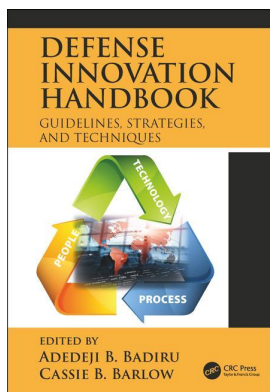
This article was downloaded by: 10.2.97.136

On: 04 Jun 2023

Access details: *subscription number*

Publisher: *CRC Press*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



Defense Innovation Handbook Guidelines, Strategies, and Techniques

Adejeji B. Badiru, Cassie B. Barlow

Three innovations for defense acquisition reform

Publication details

<https://test.routledgehandbooks.com/doi/10.1201/b22181-16>

Roy L. Wood

Published online on: 04 Sep 2018

How to cite :- Roy L. Wood. 04 Sep 2018, *Three innovations for defense acquisition reform* from: Defense Innovation Handbook, Guidelines, Strategies, and Techniques CRC Press

Accessed on: 04 Jun 2023

<https://test.routledgehandbooks.com/doi/10.1201/b22181-16>

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: <https://test.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

chapter sixteen

Three innovations for defense acquisition reform

Roy L. Wood

Contents

Three big ideas for defense acquisition reform 313

Big idea #1: Improving competition 315

Big idea #2: Improving innovation and technology transition..... 318

Improve the technology insertion baseline process 318

 Improve the technology transition process 318

 Improve innovation by removing barriers 320

Big idea #3: Improving the defense acquisition workforce..... 321

 Importance of military involvement in acquisitions..... 321

 Experience challenge with dual-track military 321

 Few, short acquisition tours preclude deep experience..... 322

 Civilian defense acquisition workforce—with military requirements advisors..... 322

 Longer tenures in a dedicated single career..... 322

 Compensating for lack of military operational experience..... 323

 Fewer incentives for short-term decision-making..... 323

Summary and recommendations..... 323

References 324

Three big ideas for defense acquisition reform

Typical acquisition reform efforts have focused on making changes in the margins, achieving marginal results. Fundamental structural and process changes need to be made for any significant improvements to be seen. The changes suggested in this chapter are not difficult to make from a policy perspective, but will challenge entrenched roles, perceived entitlements, and a status quo organizational culture.

This chapter offers bold reform ideas in three specific areas: achieving the benefits of competition above the prime contractor level by competing capability requirements among the military Services, reforming the technology development and transition process, and shifting the workforce model toward a majority civilian acquisition workforce. Some of these ideas are not new and have been recommended at various times, but have never been fully embraced or implemented. The evidence of decades of acquisition reform indicates that the marginal reforms typically taken are not making the desired changes

the Department says it needs and wants. Implementation of the reforms suggested here could provide outcomes that actually make a difference.

Improving competition: The first challenge addressed is how the DoD can reap the benefits of healthy competition with a shrinking industrial base. Competition is widely recognized as an important way to keep defense acquisitions affordable, yet this is increasingly difficult with a smaller and more specialized set of industries. Workarounds, like dual sourcing, split buys, and leader-follower procurements have propped up the industrial base, but sub-optimized the advantages of real competition (Wydler et al., 2012).

Encouraging competition among subcontractors has also been recommended, but government involvement in ensuring competition at this level has met with only limited success. Some of the previous strategies to this end have been to encourage prime contractors to invoke head-to-head competition among potential subcontractors, create innovative teaming arrangements, or create second sourcing arrangements. The government has also set up separate competitions for specific items and provided them to the prime as government furnished equipment. However, these techniques to increase competition below the prime have been met with limited success and raised concerns over violation of *privity of contract* (Federal Acquisition Regulation [FAR] Part 42) and increased risks of placing the government in the role of lead system integrator (GAO, 2010).

If the shrinking industrial base is creating conditions where real competition is not possible, and government overreach into the subcontracts is not tenable, then the idea of competing at a level *above* the prime contractor should be considered. That is, create a more competitive environment where the military Services and agencies “compete” with each other to provide a given capability. This innovative solution will have many of the same inherent advantages that are seen in prime and subcontractor competition. This idea will be discussed later in more detail.

Improving innovation and technology transition: The second challenge is the well-known difficulty in transitioning new technology into acquisition programs. New technologies are often developed in the laboratory and matured to the point where the concepts can be demonstrated, but not sufficiently ready to integrate into an acquisition program. This gap, the so-called “valley of death,” has long existed between science and technology (S&T) and acquisition organizations. The valley of death problem has been extremely resistant to resolution. This chapter will also offer several potential solutions, including leveraging commercial models of technology transition, removing barriers to technology innovation, and instituting a more disciplined management of acquisition system baselines to facilitate transition.

Improving the acquisition workforce: The third challenge is possibly the most controversial, and yet probably the one with the most leverage to improve acquisition outcomes. Multiple studies and initiatives have been undertaken in recent years to improve the performance of the acquisition Program Manager (PM; Ahern, 2009; Fox, 2014). These efforts ranged from extending the tenure of PMs, to improving the quality and quantity of training, to offering incentives and rewards for good performance. Yet PM performance, by many study standards, remains subpar (Francis, 2014).

A large proportion of these Program Managers are military officers. Given the challenge that military officers have in mastering both operational and acquisition facets within a typical 20-year career, the recommendations in this chapter are to shift acquisition leadership to a primarily civilian corps, using Military Officers in more

appropriate and sustainable roles to monitor progress toward meeting program requirements. The chapter also suggests ways to improve how civilians are managed that will bolster the experience and leadership of civilians as program managers.

Big idea #1: Improving competition

“Real competition is the single most powerful tool available to the Department to drive productivity” (USD[AT&L] Better Buying Power web portal).

Full and open competition is the holy grail of defense acquisitions. Competition is believed to lower costs to the customers, incentivize productivity and efficiency, and spur innovation among competitors. To win a competitive contract, a defense company must provide a responsive proposal for a product or system at an affordable price that meets the military requirement. To position itself to win a competitive procurement, a company must continually assess its capability to produce technical and innovative solutions to meet government needs, while keeping its cost structures lean and competitive to produce these goods at more attractive prices than its competitors. Again, and again, the government has seen evidence that competition encourages this behavior in the defense industry and has gone to great lengths to sustain a viable industrial base where competition can flourish. In short, competition is good, and more is better.

Yet, since the mid-1990s, the defense industrial base has shrunk and consolidated to an unprecedented level. With fewer businesses in the industry, it has become increasingly difficult for the government to encourage fierce head-to-head competition for many of its products and systems. The remaining industries have tended to become more specialized, oligopolistic providers of particular categories of products. For example, the Navy can choose from only two commercial shipyards for submarine construction. For tactical aircraft, only Lockheed-Martin, Northrop-Grumman, and Boeing compete. Under these conditions, government source selections have had to be as concerned with sustaining a competitive industrial base as with getting the best deal on any particular item. Defense costs continue to rise, in part because of this less competitive industrial base (Harrison, 2012).

Government efforts to create pseudo-competitive solicitations among the prime contractors, and to find ways to encourage competition at the subcontractor level, have met with varying degrees of success. Smaller numbers of new program starts have exacerbated the dilemma and created an environment where losing a single large procurement for ships or aircraft, for example, could force competitors out of the business, leaving the government with a single monopolistic provider in that sector. The Navy, for instance, juggles competition among its new amphibious, auxiliary, and destroyers to maintain multiple, viable shipyards (Cavas, 2015). In doing so, the Navy is avoiding true head-to-head competition and thereby distorting any real economic advantages in favor of spreading workshare.

As competition among primes becomes more challenging, the government has tried to promote and encourage competition at the subcontractor level. Organizationally and contractually, however, this is difficult for government to do directly beyond setting an expectation that the prime contractor will pursue rigorous competition down the supply chain. For the government to more intrusively attempt to manage competition among subcontractors risks violating the privity of contract prerogatives of the prime contractor.

Privity of contract provides that only the parties to a contract can confer rights or impose obligations relative to the contract. Since subcontracts are between the subcontractor and the prime, the government has no legal rights to meddle in the subcontract details. In other cases, the government has decided to compete subcontracts directly to procure subsystems using a “component breakout program” from a vendor. The government then provides the subsystems as government furnished equipment (GFE) to the prime (OUSD[AT&L], 2014). Many government organizations are hesitant to use such a strategy, however, because of inherent risks of removing control from the prime and placing the government in the proxy role of system integrator.

Given this difficulty of achieving real competition at the prime or subcontractor levels, then perhaps the government should seriously consider instituting competition *above* the prime. This would involve creating a much more competitive environment between the Services and Agencies inside the Department of Defense.

Today, when a warfighting capability gap is identified by a Combatant Commander and described in an Initial Capabilities Document, an Analysis of Alternatives (AoA) is conducted to assess which potential solution would best provide this capability. The AoA should assess a range of material solutions, together with operational concepts and costs. Unfortunately, the process of creating the AoA is usually assigned to a single Service where a preconceived, Service-centric solution often emerges. The Government Accountability Office (GAO, 2009) noted that, “while AOAs are supposed to provide a reliable and objective assessment of viable weapon solutions, we found that Service sponsors sometimes identify a preferred solution or a narrow range of solutions early on, before an AOA is conducted.”

A more robust and objective process would be to “compete” Initial Capabilities Documents (ICDs) among the Military Services and let each of these “bidders” conduct its own Service-centric Analysis of Alternatives (AoA) to provide the capability. Rather than having only the predictable replacement of an Air Force bomber capability with another bomber, for example, more novel and affordable solutions are also likely to emerge from the Navy or the Army. Competitive AoAs would become more rigorous, with both technical solutions and cost estimates coming under greater cross-Service scrutiny. The best competitive AoA, as judged by the Combatant Command and Joint Requirements Oversight Council (JROC), would then be “awarded” to the winning Service to manage through the conventional acquisition process. Armed with a more thorough and complete AoA, the government would be better equipped to negotiate with industry for a capability the joint forces require and have a much better understanding of the cost of such a system.

Adding this extra layer of competition could help address a number of current shortfalls and issues. First, it would force the Combatant Commanders and JROC to write ICDs that are focused on warfighting capabilities rather than allowing or telegraphing a Service-centric solution. For example, a generically-written capability for destroying targets at long ranges could be accomplished with manned or unmanned bombers; cruise or ballistic missiles launched from aircraft, ships, submarines, or land sites; rocket-assisted shipboard or ground artillery; or potentially other more innovative solutions.

In such a competitive scenario, one can imagine the Navy and Air Force going head-to-head with aircraft and missile alternatives, and the Army and Navy competing on missiles or artillery, and each of the solutions competing on affordability. Likewise, and importantly, each of the Services would be able to consider their own proposed alternatives backed by realistic and supportable concepts of operations, or CONOPS, that would also

have unique associated costs and opportunities. For instance, the Army proposal would have to include CONOPS provisions, and associated costs, to transport their proposed artillery to the battlefield, while the Air Force would include logistics and maintenance considerations for an aircraft solution. Each Service would have to justify how its proposed solution would fit into the current inventory and war fighting strategy.

Second, engendering Service competition for real resources would create an environment where the Service Chiefs are incentivized to ask hard questions about solutions the other Services put forward, and be better prepared to answer questions about their own proposals. This would force—and enforce—a cross-Service competitive rigor that does not exist today (Fay, 2015). Today, with little incentive for one Service to call the bluff of another, overestimated claims of performance or underestimated cost estimates go unchallenged until too late in the acquisition process.

From the literature on internal competition, Birkinshaw (2001) points out three advantages to an organization: First, it increases flexibility; second, it challenges the status quo; and third, it motivates greater effort (pp. 21–22). For the DoD, these three factors would hold true as well. Flexibility is critical during this time in history of rapid changes in potential threats, and opportunities presented by new technologies. As militaries are wont to assume that the next war will be like the last one, it is critical to encourage building a more flexible and responsive military that can cross swords effectively with different or more powerful adversaries. Competing at the Service level would prevent the DoD from being stuck with proposals for the usual things from the usual players.

Like the first point, creating competition among Services would help break the current status quo. The Services have become quite comfortable in their mission stovepipes, each continuing to receive about an equal 30 percent of the annual Defense budget. Like the current DoD, Birkinshaw (2001) points out that large firms also become inertia-ridden over the years, victims of their own success. Customers and their needs are taken for granted, and management systems and processes take on a life of their own. Practices and beliefs become ingrained. Such a system is hardly conducive to revolutionary new ideas (p. 22). This sounds very much like the DoD. Despite complicated and lengthy AoAs, amazingly few produce accepted solutions outside the status quo. Most new systems are incremental improvements over previous ones, becoming one-for-one mission replacements of aircraft carriers, bombers, and ground vehicles. In 2004, the Joint Defense Capabilities Study noted that Service planning does not consider the full range of solutions available to meet joint war fighting needs. Alternative ways to provide the equivalent capability are not adequately considered—especially if the alternative solutions are resident in a different Service or Defense Agency (p. iii).

Birkinshaw's (2001) third point is that competition motivates greater effort. Firms—and Services—could be expected to be more aggressive, innovative, and forward-leaning when faced with a direct threat to budgets and resources. One might imagine, for example, that the Navy and Air Force would (finally) engage in a more thorough and lively discussion of the mix of sealift versus airlift capability if the results had the real potential to change the resource and mission mix of each Service. Similarly, each of the Services would be forced to scrutinize the output of their various laboratories and warfare centers if they were forced to compete with each other on superior technology and innovation. This alone could have positive and long-lasting impacts on future war fighting capabilities, as science and technology efforts in each of the Services are ramped up and better integrated into the acquisition process.

Big idea #2: Improving innovation and technology transition

From 2011 to 2015, the GAO repeatedly identified technology immaturity as a major contributor to program problems (GAO, 2011-2015). Unsurprisingly, they consistently found that technology that is not fully mature and ready for transition to acquisition introduces significant cost, schedule, and performance risks. Prominent examples include the F-35, the most costly defense program in history (Thompson, 2013), and the DDG-1000 Zumwalt destroyer class (Hagerty et al., 2008; GAO, 2008), truncated to three ships after substantial cost increases and schedule delays (US Navy Fact File, 2014; GAO, 2008). Both these programs depended on many cutting-edge technologies that were immature at program inception and required substantial concurrent development and maturation as the acquisition program was in *execution*.

As a result, the high costs and prolonged timelines for fielding these systems have long been a frustration for operational commanders. As former Chief of Naval Operations, Admiral Gary Roughead, pointed out, “As a Service Chief, my greatest frustration was to be briefed on an exquisite acquisition timeline that delivered an initial operating capability more than a decade hence when the need was immediate” (US Senate, 2014, p. 148). Getting a partial capability now and full capability later is undoubtedly better, in most cases, than going for a long period of time with no capability. Designing programs with off-the-shelf technologies today, while embarking on a more rational offline technology development strategy for later insertion, appears to be a way to achieve this aim.

Improve the technology insertion baseline process

To reduce system development time and field an improved capability, it is necessary to enforce a proven and rigorous technology insertion strategy in acquisition programs. This is not a new idea, but one that seems to get lost in the euphoria of planning a new program. Many successful programs, like the Navy’s AEGIS and submarine programs, have been very disciplined in the use of time-certain baseline upgrades that provided the technology community the opportunity to prove out new technologies and be prepared to enter the acquisition process at certain predefined points in the acquisition life cycle (Holzer & Truver, 2014; Mitchell, 2010).

New program starts should survey the state-of-the-shelf for mature and available technologies to use in the initial baseline, providing most—but perhaps not all—of the capabilities the system may ultimately need. The Service or Agency should then embark on S&T efforts to create and mature new technologies outside the acquisition program that close the capability gap. The acquisition program should identify specific baseline upgrade points in the acquisition program schedule. If any given technology can be matured to meet the desired schedule, then it can be integrated into the next baseline; if not, it is shifted to a future insertion point. This approach requires significant planning and discipline by the acquisition program manager and close coordination with technology developers to establish hard deadlines and performance expectations. Buy-in from the operational and requirements communities is also needed so they understand the capabilities and limitations of the baseline approach. In practice, this strategy will get new capabilities to the field sooner and promote predictable upgrades over time.

Improve the technology transition process

Technology and innovation happen—it’s unavoidable, and frankly, it’s fun. S&T organizations happily invest decades and millions of dollars in science projects that produce

potential and promise, but too many of these projects never transition into acquisition programs. S&T organizations mature the technology to a point where the science is proven, but have no responsibility for productizing the technology. This leaves responsibility for maturation beyond the laboratory or prototype to acquisition programs and their contractors. Accepting immature technology, however, is anathema to acquisition program managers whose role it is to reduce an acquisition program's cost, schedule, and performance risks. This maturity gap between proof of concept and productized technology is the well-known "valley of death."

A straightforward way to close this gap may be found in the way commercial companies transition their technologies to products. In 2006, the GAO conducted a study that contrasted DoD and commercial technology transition practices (GAO, 2006). The GAO found that the best commercial practices involved the S&T community keeping responsibility for maturing technologies well beyond the point that the DoD currently does, and assigning relationship managers to work with both the S&T and production managers to facilitate technology transition. The GAO's specific recommendation for the DoD was to allocate a portion of 6.4 funding (advanced component development and prototyping) to the S&T community specifically for technology maturation. Unfortunately, the DoD rejected this recommendation, and only partially concurred with the idea of a relationship manager. Both these ideas continue to have considerable merit.

Commercial firms, like those in the GAO study, have had successes by holding their S&T organizations responsible for maturing technologies to the point where the risk of productizing them is minimal. This includes responsibility for prototyping and testing the technologies in realistic environments—exactly the process needed by the DoD to allow acquisition PMs to have confidence to accept new technologies for integration with minimal risk for cost and schedule overruns or performance failures. The DoD should reconsider its reluctance to accept the GAO's recommendation and institute more rigorous S&T involvement and responsibility in technology maturation prior to transition.

Similarly, the DoD should also adopt the industry best practice of assigning *relationship managers*. Given that DoD S&T and acquisition managers "speak different languages," have widely different cultures, and use processes that are often not mutually supportive, there is a clear need to bridge these gaps between S&T and acquisition. Relationship managers could serve to better facilitate problem-solving and foster better two-way communications between S&T and acquisition organizations.

Likewise, relationship managers could work with technology professionals to identify promising technologies that are not obvious candidates for existing acquisition programs. Technologists are quick to point out that average users don't know what they don't know. For example, there was no known demand for an iPod or smartphone until the technology was introduced. For most consumers, it would be hard to imagine life before those technologies. Users may not be able to imagine what new technology is within the art of the possible, while some technologists go happily about their business without an appreciation for what the users may actually need.

This technologist-user disconnect, prevalent in the DoD, could easily be bridged by individuals who are "bilingual" and experienced in both S&T and acquisition. One way to accomplish this would be to post a senior S&T professional on the staff of each Program Executive Office (PEO). S&T liaison officers who "speak technology" would work closely with the PEO and its acquisition program offices to help find technology solutions across the PEO's portfolio of programs. This arrangement could create the much-needed linkage between the S&T network and program managers to meet match technology needs with emerging technologies.

Improve innovation by removing barriers

Defense has become more isolated and less innovative, in part by its own actions and those of Congress. The Department has driven industry to consolidation, established substantial barriers to new entrants, and contributed to risk aversion among non-Defense businesses. According to former Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics, the Honorable David Oliver,

While that defense industrial base was once robust enough to tolerate many failures, that circumstance no longer exists. Our defense industry is no longer based upon the entire vibrant American commercial industry, as it was in World War II. Instead, during the Cold War, the defense industry grew into an isolated one. America is now the only Western nation with an isolated (by regulation and practice) defense industry. The rest of the Western world has adopted different approaches which seek to better access the technologies being developed in the commercial industries and is accelerating ever faster away from the American defense acquisition model. (US Senate, 2014, p. 142)

Congress and the Department have imposed significantly greater oversight, restrictions, and requirements on defense contractors than commercial companies could or would tolerate. Commercial contractors or subcontractors generally work under contractual provisions derived from the Uniform Commercial Code, a 270-page document (USLegal, 2014), while government vendors must labor under the regulatory burden of the FAR, DFAR, and supplements totaling over 4,000 pages. Government contractors must deal with a bid and proposal process far more involved than those needed for most commercial contracts. Defense contractors are required to have certified cost accounting systems to work for the government, and are subject to audits and penalties for violating any of the rules or referenced clauses in those thousands of pages of regulations. Defense contractors are subject to contract termination for cause or simply for the convenience of the government, and the government can unilaterally change the contract without the contractor's consent.

Further, should a contractor be willing and able to navigate the maze of obstacles and barriers and then perform superbly, delivering great value to the government, there is no guarantee of follow-on work. If a contractor wishes to work on classified projects, there are substantial additional requirements for clearing the facility and workforce. Also, many companies find themselves with severe restrictions on releasability of information to foreign governments, companies, or individuals, even talented "green card" holders educated in US universities. They also face the potential for products or components to be designated dual use (Dual Use, 2012) or fall under the International Trafficking in Arms Regulations (ITAR), severely limiting a company's markets and sales (ITAR, 2014).

In total, these are significant barriers that keep many companies from choosing to deal with the government and the Department of Defense. The legal obligations and potential penalties, arcane regulations and restrictions, and bureaucratic hurdles represent a tremendous time and resource investment. It should not be surprising that many of the most innovative companies choose not to work on government contracts, and those companies that do are likely to be, or become, more bureaucratic, cautious, and risk averse.

If the Department truly wants to attack a root cause that will improve innovation by lowering barriers to innovative companies, this is an area ripe for reform. Improvements

would require re-engineering of the FAR and DFAR—a task easier said than done. The Department would have to work closely with Congress, and there would undoubtedly be some pushback from current defense industries that benefit from the high barriers to new competition. Nevertheless, this is a big idea worth pursuing.

Big idea #3: Improving the defense acquisition workforce

“Although there is a pressing need for the Defense Department to perform the active manager role, the current approach to program management is fundamentally flawed. After fifty years, we know that an Army or Air Force colonel or Navy captain (O–6) with limited industrial management knowledge and experience is ill prepared to direct and oversee a first-of-a-kind multi-hundred million dollar industrial program with hundreds of complex challenges and dilemmas” (Fox, 2012, p. 200).

Importance of military involvement in acquisitions

Most leaders in the Pentagon would agree that it is important for military operators to be involved in the procurement of military equipment and supplies. In the current acquisition system, military serve in relatively small numbers in virtually all capacities, including as systems engineers, contracting officers, financial managers, logisticians, and others. However, in the key position of Program Manager, military tends to dominate. Overall, military members represent only 10 percent of the total acquisition workforce, but in program management, a disproportionate 42 percent are military (Gates et al., 2013). The military members bring broad leadership, enthusiasm, and operational experience to the business of procuring military equipment and, in many cases, firsthand judgment about the military utility of a system’s design. These aspects of having a military involvement in a program are largely beneficial, but there are a number of deep-seated problems.

First and foremost, acquisition is a difficult, high-stakes business. Fox and Miller (2006) described the skills required of a program manager, most of which are not core warfighting skills, and must be gained through training and experience in acquisition: “Managers [of large, complex programs] must augment a strong foundation of conventional management skills in planning, organizing, and controlling, with knowledge of the requirements, resources, and constraints of a specific project as it progresses” (p. 109). Military program managers must be able to negotiate the complicated planning, programming, and budgeting system and have a good understanding of government financial management. The PM must also become knowledgeable in the technology of the program to be able to understand complex engineering issues and make tradeoff decisions. The military PM must manage both a largely civilian workforce of direct reports and a vast web of contractors. Traditional military leadership training may not equip a PM to operate in that environment. Again, Fox points out that “skilled project managers focus more on monitoring and influencing decisions, and less on giving orders” (p. 124).

Experience challenge with dual-track military

It has always been problematic for military personnel planners to effectively allocate time in a typical military member’s career to both gain the required operational experience *and* sufficient acquisition experience to manage large, complex procurements. To gain broad

operational experience in the field, officers are typically rotated through increasingly challenging positions every 18–36 months. Their promotions in an “up-or-out system” depend on this mobility. Longer tours can be seen as career stagnation by promotion boards. Operational career paths are strictly regimented, with success depending on doing well in command and other must-do tours, including Joint Service tours.

Each of the military Services treats operators differently when they are transitioning into acquisition careers, but most officers start the transition mid-career or later. With only a few, if any, short acquisition tours under their belts, many military PMs are ill-equipped to lead large, complex acquisitions. Independent analyst Katherine Schinasi observed in testimony to Congress, “An operational commander does not make good business decisions. He was not trained to do so nor is he rewarded. Military advancement depends on frequent rotations; sound program management and accountability relies on continuity” (US Senate, 2014, p. 157).

Norm Augustine, former Lockheed CEO and government executive, noted in recent congressional testimony that, “The issue most assuredly is not one of dedication or native ability: the issue is a lack of relevant experience and the freedom to exercise that experience. One hundred managers with one year’s experience should never be considered to be the same as five managers each with 20 years’ experience” (US Senate, 2014, p. 12).

Few, short acquisition tours preclude deep experience

Short tour lengths carry over to assignments in senior PM positions, and this tenure issue has also been identified and addressed by a mandate that PMs sign agreements to serve at least four years or until the next major milestone of a program (DoD, 2005). Unfortunately, this agreement is largely unenforceable, as many PMs reach retirement eligibility or are promoted out of the position before their tenures are reached.

Shorter tours are not only a systemic problem, but many feel that a military PM may be incentivized to serve in this position for as little time as possible before moving on. Similarly, few military program managers are ever given a second program, since this would be viewed broadly as not moving up and, again, likely to stop a promising career in its tracks. Lessons learned by a military leader on one program are therefore not transitioned to another, losing significant opportunities to create a learning organization and improve future outcomes.

Civilian defense acquisition workforce—with military requirements advisors

As an alternative to the current system, which continues to resist reform efforts because of the deep, systemic challenges, the Department of Defense should consider transitioning to a civilian acquisition corps *with military requirements advisors assigned to large programs or PEOs*. This change would solve many of the problems associated with inexperienced military Program Managers, but would require a more robust civilian acquisition career management scheme to work well.

Longer tenures in a dedicated single career

An all-civilian workforce would not immediately be a panacea for improving acquisition outcomes. There are challenges associated with the way civilian acquisition professionals are assigned and developed, most having a less aggressively managed career than the typical military officer. Yet, with a potential 40-year career to devote exclusively to acquisition,

these members have significantly more career capacity to develop the requisite skills and experience to become expert program managers and functional leaders than their military counterparts. There are no ill effects to a civilian who remains in a particular program office or in a leadership role for a decade or more—a time frame that would doom any military member's career.

Compensating for lack of military operational experience

A major drawback to having an all-civilian workforce, of course, is the perceived lack of firsthand military field experience. This is mitigated somewhat by veterans' hiring preference that encourages former military members move into the civil service. A recent RAND study noted that former military members represent an important and growing source of future civilian acquisition workforce leaders (Gates et al., 2013, p. 50).

To more intentionally ensure that military equities and nuances are represented in defense programs, military operators could, and should, be assigned as advisors to the program manager of every large program or to PEOs with many smaller programs. This officer should be collocated with the program or PEO, but have reporting responsibility back to the Service or sponsoring organization that initiated the capability requirement.

In this scenario, the military advisor would be immersed in the day-to-day business of the program office, observing tradeoffs and advising engineers and managers when questions arise about how a particular piece of equipment or feature would be used in the field. This military advisor would also be well positioned to report progress and potential operational issues back to the requirements originator for action or clarification. As an advisor, the military member would not need the in-depth training or experience to actually run the program, nor would they be obliged to accept extended tours of duty in a program office that could hurt their opportunities for promotion.

Fewer incentives for short-term decision-making

Unlike their military counterparts who are sometimes incentivized by short tours to make short term decisions, civilian leaders in programs for long career assignments would be better served to take the long view, knowing that they must live with the decisions they make. Further, civilians who gained experience and were successful in one program could be assigned to larger, more challenging ones, taking with them the knowledge and experience they gained along the way. Since civil servants are not subject to the "up-or-out" policy of the military, pressures and disincentives that would be career ending for a military member would have far less influence on a civilian's career. Civilians would be more apt to make decisions based on the long-term good of the program, rather than the immediate good of their careers. This is especially true, since they would be faced with the downstream likelihood of having to live with the consequences of their decisions.

Summary and recommendations

There has been, and continues to be, a long and continuing saga of defense acquisition reform efforts. Most have either failed, or only succeeded in making improvements at the margins. This chapter presented three big ideas to help move acquisition reform from treating symptoms to addressing root causes. The ideas impact the way material solutions are developed by introducing competition among the Services and Agencies for the privilege of managing programs and their resources; to the way technology is matured and

inserted, suggesting a more rational and rigorous approach to the transition process; and in making fundamental changes to the way programs are managed, by moving toward a civilian workforce with military requirements advisors. As with most change efforts, those with the most potential for gain are also the ones most difficult to plan and implement. All three of these innovations are possible, but will require substantial willpower and collaboration inside the Department and between the Department and the Congress. The question remains, is the Department ready for real acquisition reform?

References

- Ahern, D. (2009). *OSD Study of Program Manager Training and Experience*. Washington, DC: Office of the Secretary of Defense.
- Birkinshaw, J. (2001). Strategies for managing internal competition. *California Management Review*, 44(1), 21–38.
- Cavas, C. P. (2015). USN ship strategy focuses on industrial base. Defense News. Retrieved from <http://www.defensenews.com/story/defense/naval/ships/2015/03/23/shipbuilding-navy-stackley-ingalls-bath-nassco-national-steel-lpd17-amphibious-ships-lha-lha8-assault-ship-taox-fleet-oiler-ddg1000-ddg51-arleigh-burke-zumwalt-amdr-radar-raytheon-aegis/25083347/>
- DoD. (2005). *Operation of the Defense Acquisition, Technology, and Logistics Workforce Education, Training, and Career Development Program* (DoD Instruction 5000.66). Retrieved from <http://www.dtic.mil/whs/directives/corres/pdf/500066p.pdf>
- Dual Use. (2012). *Dual Use Export Licenses*. Washington, DC: US Department of Commerce. Retrieved from http://www.export.gov/regulation/eg_main_018229.asp
- Fay, M. (2015). Pentagon should service competition, not customer service. Retrieved from http://www.realcleardefense.com/articles/2015/02/24/pentagon_should_service_competition_not_customer_service_107656.html
- Fox, J. R. (2012). *Defense Acquisition Reform 1960–2009: An Elusive Goal*. Washington, DC: US Army Center of Military History.
- Fox, J. R. (2014). *Report to Congress on Department of Defense 2014 Study of Program Manager Training and Experience*. Washington, DC: Office of the Secretary of Defense.
- Fox, J. R., & Miller, D. B. (2006). *Challenges in Managing Large Projects*. Fort Belvoir, VA: Defense Acquisition University Press.
- Francis, P. L. (2014). *Where Should Reform Aim Next?* (GAO-14-145T). Washington, DC: GAO.
- GAO. (2006). *Stronger Practices Needed to Improve DoD Technology Transition Processes* (GAO-06-883). Washington, DC: Author.
- GAO. (2008). *Defense Acquisitions: Assessments of Major Weapon Programs* (GAO-08-467S). Washington, DC: Author.
- GAO. (2009). *Defense Acquisitions: Many Analyses of Alternatives Have not Provided a Robust Assessment of Weapon Systems Options* (GAO-09-665). Washington, DC: Author.
- GAO. (2010). *Defense Acquisitions: Additional Guidance Needed to Improve Visibility into the Structure and Management of Major Weapon System Subcontracts* (GAO-11-61R). Washington, DC: Author.
- GAO. (2011). *Defense Acquisitions: Assessments of Selected Weapon Programs* (GAO-11-233SP). Washington, DC: Author.
- GAO. (2012). *Defense Acquisitions: Assessments of Selected Weapon Programs* (GAO-12-400SP). Washington, DC: Author.
- GAO. (2013). *Defense Acquisitions: Assessments of Selected Weapon Programs* (GAO-13-294SP). Washington, DC: Author.
- GAO. (2014). *Defense Acquisitions: Assessments of Selected Weapon Programs* (GAO-14-340SP). Washington, DC: Author.
- GAO. (2015). *Defense Acquisitions: Assessments of Selected Weapon Programs* (GAO-15-342SP). Washington, DC: Author.
- Gates, S. M., Roth, E., Srinivasan, S., & Daugherty, L. (2013). *Department of Defense Acquisition Workforce: Update to Methods and Results Through FY 2011*. Washington, DC: RAND Corporation.

- Hagerty, J. C., Stevens, P. D., & Wolfe, B. T. (2008). *DDG 1000 versus DDG 51: An Analysis of US Navy Destroyer Procurement*. Monterey, CA: Naval Postgraduate School. Retrieved from <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA494009&Location=U2&doc=GetTRDoc.pdf>
- Harrison, T. (2012). *The Effects of Competition on Defense Acquisition*. Washington, DC: Center for Strategic and Budgetary Assessments.
- Holzer, R., & Truver, S. C. (2014). Not your "Father's AEGIS." *Center for International Maritime Security*. Retrieved from <http://cimsec.org/not-fathers-aegis/13697>
- International Trafficking in Arms Regulations (ITAR). (2014). *International Traffic in Arms Regulations*. Washington, DC: US Department of State. Retrieved from https://www.pmddtc.state.gov/regulations_laws/itar.html
- Joint Defense Capabilities Study. (2004). *Improving DoD Strategic Planning, Resourcing and Execution to Satisfy Joint Capabilities*. Washington, DC: DoD.
- Mitchell, S. W. (2010). *Model-Based System Development for Managing the Evolution of a Common Submarine Combat System*. Retrieved from http://www.omg.sysml.org/Model_Based_Approach_to_Manage_Evolution-SteveMitchell_CI_C4I_2010v6.pdf
- Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)). (2014). *Guidelines for Creating and Maintaining a Competitive Environment for Supplies and Services in the Department of Defense*. Washington, DC: Author.
- Thompson, M. (2013). The most expensive weapon ever built: The Pentagon's \$400 billion F-35 is running into turbulence just as deeper budget cuts loom. *Time*. Retrieved from <http://content.time.com/time/magazine/article/0,9171,2136312,00.html>
- USLegal. (2014). *Universal Commercial Code*. Retrieved from <http://uniformcommercialcode.uslegal.com>
- US Navy Fact File. (2014). Destroyers–DDG. Retrieved from http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=900&ct=4
- US Senate. (2014). *Defense Acquisition Reform: Where Do We Go from Here?* Testimony before the Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs. Retrieved from http://www.mccain.senate.gov/public/_cache/files/7f54fe2e-9c26-4f66-b940-ebf8a9e9ef9c/psi-report---defense-acquisition-reform---a-compendium-of-views-10-2-14.pdf
- Wydler, G., Chang, S., & Schultz, E. (2012). *The Limits of Competition in Defense Acquisition*. Retrieved from http://www.dau.mil/research/symposiumdocs/Wydler_Continuous%20Competition%20slides.pdf



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>