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



Program Manager Assessments

Professionalism Personified

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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.

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 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 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 Sustainment is every bit as challenging as development.

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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 lifecycle 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, lifecycle 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.

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