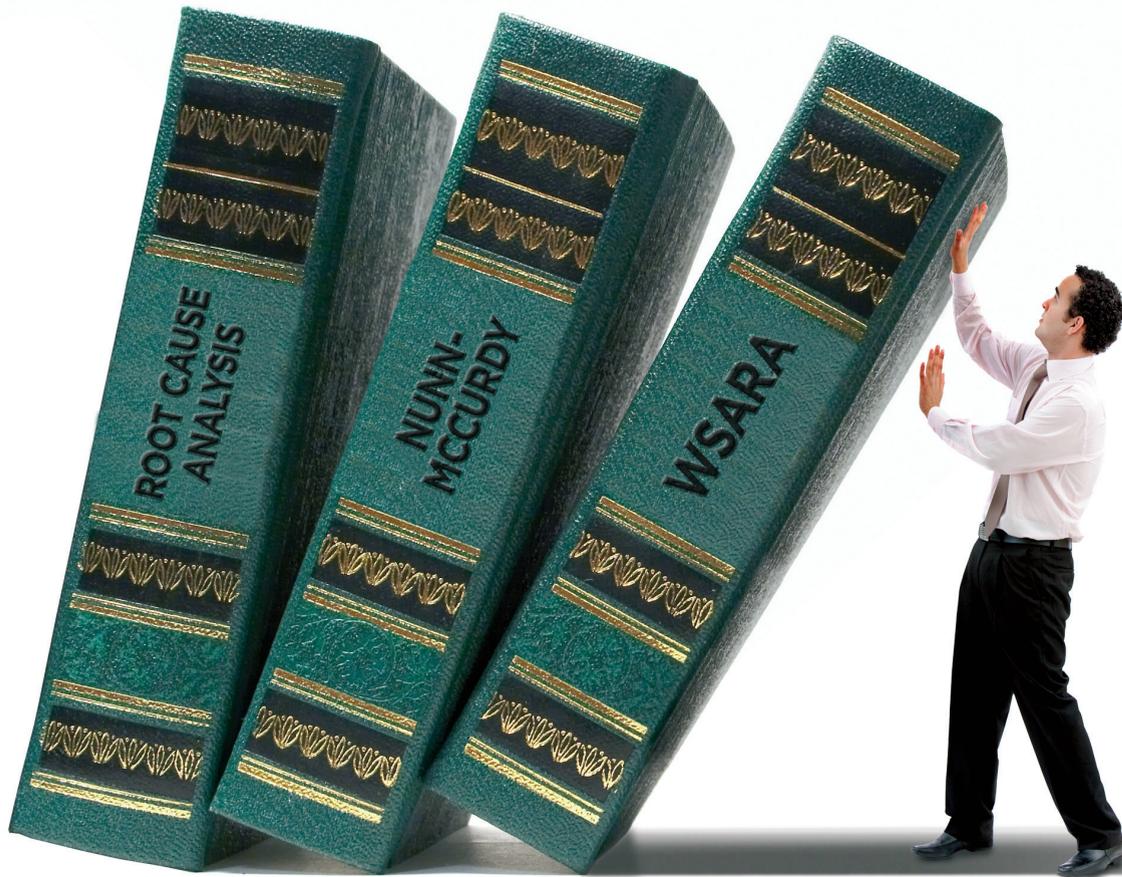


WSARA: Baselining Programs Early Compounds the Problems

Peter Modigliani



Congress unanimously approved the Weapon System Acquisition Reform Act in 2009 because if there's one issue that everyone in Washington can agree on, it's that defense acquisition needs additional reform. While enhanced discipline and rigor is required, the section of the law that attempted to control cost growth with additional organizations, processes, and requirements early in the acquisition life cycle will actually increase the costs and risks of many large programs.

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The biggest pitfall of WSARA is baselining major defense acquisition programs at Milestone A and driving Nunn-McCurdy breaches if programs exceed the initial cost and schedule estimates by 25 percent. At Milestone A, the effort is still in the early concept stages. The users have developed an initial capabilities document to define the capability gap and have conducted an analysis of alternatives of proposed materiel solutions. The acquisition community developed a technology development strategy to reduce technology risk and determine the appropriate set of technologies to integrate. The Milestone A estimates are developed years prior to having mature technologies demonstrated on representative prototypes, a preliminary design, or requirements solidified in a capability development document. While estimates are valuable at this stage, WSARA requires cost and schedule baselines prior to finalizing the scope.

In the past, if cost estimates increased by 25 percent, the program manager was required to notify the milestone decision authority, typically the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, who then consulted with the Joint Requirements Oversight Council on requirements and determined if the program warranted the resources required. In WSARA, Congress added new schedule criteria, and now, exceeding cost or schedule estimates by 25 percent drives a Nunn-McCurdy breach, in which the default plan would be to terminate the program. If DoD wanted to continue with such a program, it would need to re-accomplish the Milestone A and face additional oversight, reporting, and scrutiny.

The Fallout of WSARA

Now, I will be the first to admit that DoD needs to get a tighter grip on scope and cost growth, and 25 percent cost growth on a major defense acquisition program is a significant amount, but let's take a step back and look at what WSARA truly does here. In the early stages of the acquisition life cycle, you are still defining the scope based on initial requirements, technology maturity, funding, cost, and schedule estimates. WSARA requires baselining based on the initial analysis, with severe consequences on breaching. The fidelity of the cost and schedule estimates is low due to the significant amount of unknowns with the effort.

To reduce the risk of a Nunn-McCurdy breach, program managers will now be motivated to inflate their cost and schedule estimates to account for all the unknowns and allow for more of a buffer. Yet presenting a higher cost estimate likely exceeds the current program budget, thereby raising a full funding issue. If the cost estimates are too high, leadership may decide not to continue with an otherwise valuable program. If the program *does* get approval, it will likely require funds from other sources to ensure funding is at an acceptable cost confidence level. While independent cost estimates may help keep the program manager honest, they will also be based on an undefined scope and ample unknowns. Once a program manager has an approved program

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based on inflated cost estimates, the scope and costs will naturally grow to take advantage of the increased reserves to reduce risks or add capabilities.

An Example

Let's examine a program that, by all accounts, is a well-performing, high-demand program in the early stages of the life cycle. It baselined costs and schedule at Milestone A and is maturing technologies via competitive prototypes and other early systems engineering efforts. The program manager comes to the realization that some of the critical technologies will cost more or take longer to develop than was originally planned two years ago based on initial assessments. There is full support from all key stakeholders (combatant commanders, the Pentagon, and Capitol Hill) to proceed with this program, but it must now take a bureaucratic time out.

The Joint Requirements Oversight Council will call for a series of review boards to revalidate requirements. The Office of the Secretary of Defense's director of cost assessment and program evaluation will need to conduct an in-depth cost estimate, which typically takes six months. The new director of performance assessment and root cause analysis will need to conduct a root cause analysis, and it could take months to audit the program. This is all in addition to the analysis and reviews conducted by the users, program office, program executive office staff, and Service headquarters staffs. Finally, the milestone decision authority will need to conduct additional reviews and the staffs will compile a report to submit to Congress. While WSARA dictates that a report be sent to Congress within 30 days upon the program manager notifying the milestone decision authority, no one finds that to be a realistic timeframe. It is difficult to staff a simple one-page memo through the Pentagon within 30 days, let alone a major analysis determining the fate of a major defense acquisition program. The program can either fail to meet the 30-day suspense to Congress and/or the program manager delays formal milestone decision authority notification. Congressional staffers and members will also likely call for meetings or hearings to discuss the program further.

Avoiding termination, the program is now required to spend the next six months re-accomplishing its Milestone A before it can resume technology development and prototyping. Both the Nunn-McCurdy process and re-accomplishing the previous milestone can easily delay the program a year or two, which increases costs and compounds risk. The Office of the Secretary of Defense and the Service will need to rebalance funding profiles while government and industry will reallocate resources during the delays. This scenario was all because the estimates done prior to fully understanding the program did not properly account for all the unknowns.

Focusing on Milestone B

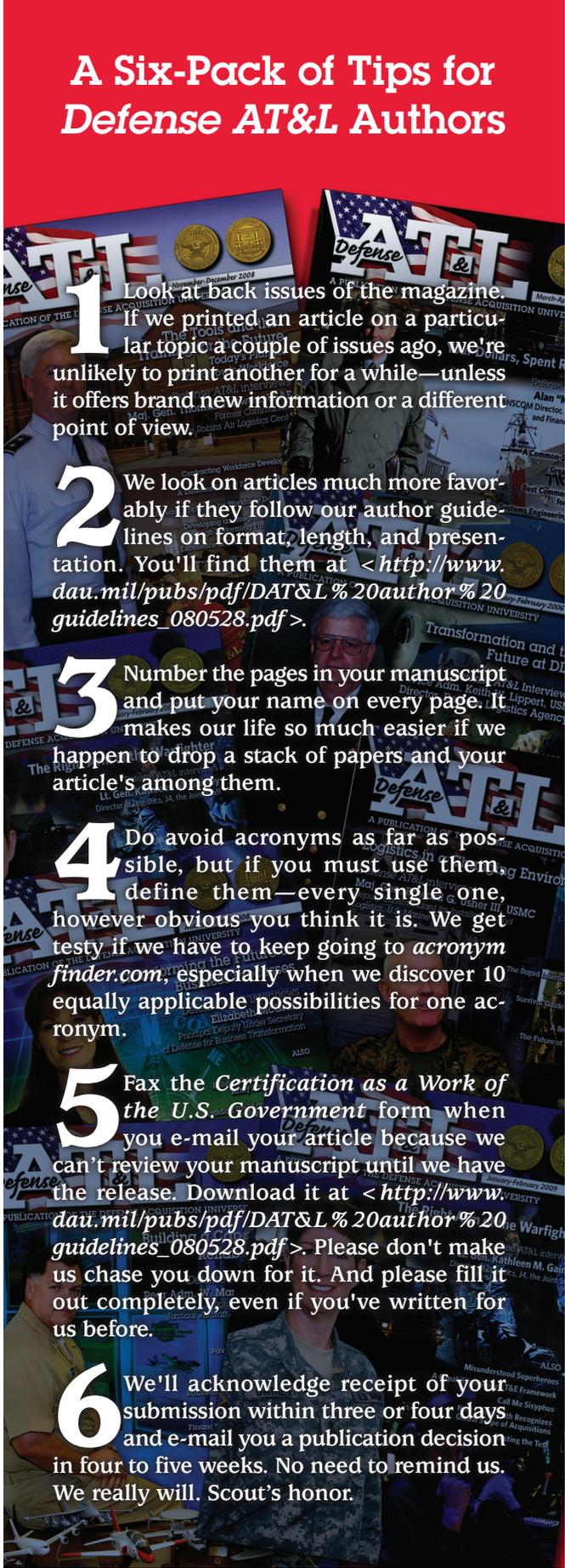
The DoD Acquisition Framework traditionally focused on the acquisition program starting at Milestone B, following ample planning and analysis of requirements, technologies, and costs as well as a sound acquisition strategy. The increased emphasis on early systems engineering, analysis of alternatives, and cost estimates helps leadership make a sound decision at Milestone B on whether to grant approval to begin development. At Milestone B, the milestone decision authority approves the acquisition program baseline, and the program manager must manage cost, schedule, and performance within those limitations. Baselining programs at Milestone A effectively forces planning and analysis to be performed years sooner. It's almost getting to the point where once someone comes up with the need for a materiel solution, he had better have all the details known the next day. If Congress reversed those aspects of WSARA, it would put the focus back on Milestone B, allowing for proper planning and still permitting the Office of the Secretary of Defense and Joint Staff to conduct checks and balances if costs or schedules grow 25 percent higher than originally estimated. It would allow for more realistic Milestone A cost and schedule estimates and reduce overall program cost and schedule risks.

A Major Concern

At a recent conference, I raised this issue to a panel of current and former senior DoD acquisition executives, and they all agreed this was a major concern that will plague the department for years. As the expanded defense acquisition bureaucracy spends the next few years defining and implementing the new roles, policies, and processes, I hope they provide feedback to Congress on these unintended consequences. The draft IMPROVE Act of 2010 on Capitol Hill these days does not address this early baselining issue, but rather adds performance metrics. We all want to develop major programs faster and cheaper, yet the bureaucracy encumbers speed and agility. If we truly want to address cost growth, we need to develop innovative approaches to streamline the bureaucracy, not expand it.

The author welcomes comments and questions and can be contacted at peter.modigliani@yahoo.com.

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