

Successful Implementation of WSARA Will Require Differentiating Roles for Program Execution and Expanding Human Capital Training for Systems Engineers

by John A. Thomas

The Weapon Systems Acquisition Reform Act (WSARA) of 2009, which passed into law this spring, holds promise for improving the acquisition of large complex systems. However, the imperfections of the acquisition process that the law sets out to correct require careful review and consideration in its implementation.

In specific, there is a need for increased focus around those areas concerning the deployment of systems engineers – i.e., which teams within a program office are systems engineers deployed, and what’s required of those systems engineers when operating within those teams. Overall, this is an opportunity for the Department of Defense to empower systems engineers with greater responsibility and authority. If it is combined with an effective strategy for human capital development, this empowerment for DoD will result in improved delivery of programs, as previously demonstrated through lunar exploration, nuclear weapons development, and the application of stealth technology.

In general, there is consensus around the fact that building a system involves a program management office ensuring teams exist to execute three critical roles: 1) management; 2) definition, test and integration, (or systems engineering and integration); and, 3) implementation. However, I have found a distinct lack of agreement within government and industry concerning contracting strategies for how teams are aligned to execute these roles. I have also found a lack of clarity in many minds on how systems engineers are deployed into the teams executing these roles and the breadth of skills and experience required..

Acknowledging that these program management office roles exist; agreeing that these roles are accomplished by teams of contractors and government staff; and recognizing that systems engineers are critical contributors within each team inevitably leads to recognizing that systems engineers require both specialized technical skills *and* process knowledge — as well as critical leadership skills and experience gained across the development lifecycle of a system.

Increased Human Capital Training for Systems Engineers

A “post-WSARA world” will require a robust human capital development strategy for assessing qualified systems engineering candidates and determining which skills and levels of experience are needed for each of the roles and within the systems engineer positions of each team. The skills of these systems engineers go beyond formal science and engineering training, to include people skills in communications, decision-making, leadership development and regulatory knowledge of contracts and acquisition policy; and that’s for starters.

The time to act is now. In the next nine months, DoD and industry should dive deeper than the Act requires in order to begin formalizing these ideas into policy. A successful outcome will include a more uniform understanding and acceptance of the roles needed in the delivery of complex systems and the nuances surrounding the deployment of systems engineers into the teams that execute those roles. The policy should identify a method for getting agreement on the skills and experience required of systems engineers within those roles. Additionally, policy should identify the need for leadership and specialized training as part of a systems engineering human capital development strategy.

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