All Aboard! Earned Value Management in DoD

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Seventh in a series of articles

The Office of Performance Assessments and Root Cause Analyses (PARCA) is responsible for Earned Value Management (EVM) policy, oversight and governance across the Department of Defense (DoD).

To be effective, EVM practices and competencies must be integrated into the program manager (PM) acquisition decision-making process; the data provided by the EVM System (EVMS) must be timely, accurate, reliable and auditable; and the EVMS must be implemented in a disciplined manner consistent with the 32 Guidelines in the Electronic Industries Alliance Standard-748 EVMS (EIA-748). PARCA’s goal is to increase earned value’s constructive attributes for DoD contractor firms managing acquisition programs by reducing the economic burden of inefficient EVM implementation.

One of PARCA’s core tenets in accomplishing that mission is to work collaboratively with government and industry stakeholders to develop and publish EVM Policy. PARCA believes that policy and guidance should strike the appropriate balance between cost effectiveness and the need for programmatic situational awareness. There is a

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natural circle of EVM policy development as shown in Figure 1. This cycle reflects the fact that policies sometimes can result in unforeseen consequences that require updated language.

Drawing on the experiences of both industry and government experts is the most effective method of ensuring the government’s requirements are affordable and achievable. PARCA works closely with military Service and Agency EVM Focal Points, the Defense Contract Management Agency (DCMA), as well as Industry partners led by the National Defense Industry Association (NDIA) Integrated Program Management Division (IPMD), to ensure that policy does not add hardship but facilitates the delivery of reliable integrated program management data for decision making.

The effective application of EVM policy across the DoD is a direct outcome of PARCA’s collaborative stakeholders relationships. As examples of some recent PARCA collaborations, government and industry partners provided invaluable feedback during policy updates of the Integrated Program Management Report (IPMR) and associated Guide, and the EVM System Interpretation Guide (EVMSIG) that provides the DoD interpretation of the intent of the EIA-748 EVMS Guidelines. The enhancements of these two documents clarify the EVM system and EVM reporting requirements. Also, PARCA has worked over the years with the DoD Joint Space Cost Council (JSCC) in its efforts to understand the government and industry impacts and benefits of EVM and EVMS policies.

Policymakers should be willing to make changes, especially when acquisition methods change. One example is the increasing use of Agile Software methodologies in DoD acquisitions. Even though EVM principles and EVMS requirements can be rigid, there is some flexibility that must be documented clearly to allow for its understanding and dissemination. In the Agile example, PARCA has released an Agile and EVM guide for PMs when the two disciplines are used together. The guide was developed through a yearlong feedback loop with government and industry including EVM, Information Technology, and Business functional constituents. It documents the relationship between Agile and EVM and explains areas of flexibility regarding an EVM system’s setup.

EVM provides a disciplined project management approach through an integrated planning and control system for authorized work in order to achieve cost, schedule and technical performance objectives. EVM’s core outcomes are meant to provide the government insight into contractor performance, provide actionable information and help ensure confidence in the data received. There are several keys to ensuring that EVM provides value to government and industry and does not drive cost into the system. A discussion of these items follows.

**Use EVM where appropriate.** DoD Instruction 5000.02 and Defense Federal Acquisition Regulation Supplement (DFARS) Section 234.201 establish dollar and contract-type thresholds for cases when EVM should be utilized and incorporated into a contract. In addition to these criteria, PMs should consider work scope and risk in deciding whether to use EVM in managing their programs. EVM is most beneficial when the scope of the work is discrete and measurable. Typical types of work for which EVM applies include development and integration efforts with specific end products or services that can be directly planned and measured. It may be appropriate not to apply the EVM requirement where the nature of the work does not lend itself to meaningful EVM information—such as maintenance and repair services that are provided as needed. If the EVM requirement is not placed on a contract due to the nature of the work, the PM should implement an alternative method of management control to provide advanced warning of potential performance problems.

**Understand the baseline and whether it is achievable.** In order to evaluate performance, a baseline for measuring it should be established. When using EVM (or when managing any program without EVM), it is imperative that the government and contractor understand the work scope and establish a plan to achieve technical, cost and schedule performance objectives. An Integrated Baseline Review (IBR) can be used as a means for government and contractor to discuss the work scope and the plan to accomplish the contract’s statement of work. The IBR’s outcome should be that the government PM understands whether the baseline is achievable in view of the risk profile. An IBR begins with planning the baseline and culminates in a joint review event. The IBR should be conducted as early as practical for the program within the required 180 days to ensure understanding and agreement of the performance measurement baseline. An IBR is not a one-time

![Figure 1. Policy Development Circle](image-url)
been an invaluable resource to help promote new initiatives and policies to a wider audience. Office representatives have spoken at various events such as the NDIA IPMD quarterly meetings, EVM World, the EVM Integrated Program Management Workshop (IPMW), EVM Practitioners Symposium, Acquisition Days at the Defense Acquisition University, and other events. PARCA has worked diligently to maintain two-way communication and to have an “open door” policy. In fact, PARCA has available an interpretation process for anyone to ask questions for clarification.

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In its mission to promote disciplined DoD EVM practices, PARCA regularly visits DoD installations, Government Service Acquisition Centers, industry facilities, and attends EVM community events to discuss changes to, and impacts of, policy. PARCA provides EVM policy training and initiative updates at industry events such as NDIA IPMD meetings and College of Performance Management workshops. The collaboration with the NDIA IPMD Board and event planners has been an invaluable resource to help promote new initiatives and scope, complexity and risk. Program Offices should only require EVM data deliverables to a level that maintains the cost effectiveness of the reporting, targets strategic areas, and aligns with how the program is managed. Too much detail in reporting will slow the review, response and strategic utility of the data and potentially detract from the agile nature needed for proactive government decision making.

Use the EVM data to make decisions. In order to act on information in the IPMR, the government must have confidence in the data provided. The EVMS data must be timely, accurate, reliable, auditable and implemented in a disciplined manner consistent with the 32 Guidelines prescribed in EIA-748. For programs involving more than $100 million, where EVM is applied, DCMA reviews the system for compliance and, on an ongoing basis, identifies risks to ensure the reliability of the EVMS data. The results of DCMA’s activities are vital to the largest and riskiest DoD programs. Data from the EVMS should be used by government and industry stakeholders to facilitate joint situational awareness and in making their decisions. The data’s value is in what can be predicted and acted upon and its usefulness in leveraging trend analysis of past performance and identifying the root cause of variances from plan. EVM metrics by themselves are neither good nor bad but provide data points and information as a basis for communication and decision making.

Near-term DoD EVM policy updates are a result of the aforementioned feedback loop and response to interpretation questions on policy. The community can expect in the next year updates to the following:

- Over Target Baseline/Over Target Schedule Guide (OTB/OTS Guide)—the update will provide clarity on why an OTB/OTS is needed, what to do if it is needed, and the process to follow.
- DoD EVM System Interpretation Guide (EVMSIG)—updates are to be based on implementation of guidance over the last year and a half.
- Agile and Earned Value Management: A Program Manager’s Desk Guide—updates are to discuss effect of Agile on IBRs and how Agile metrics should work with EVM metrics.
- IPMR Implementation Guide—potential updates will move away from formats and toward data-centric delivery of information.
- EVM Implementation Guide (EVMIG)—a revival of a one-stop document for all EVM application and guidance information.
- DFARS—updates to reflect the $100 million EVMS threshold class deviation memo and in concert with updates in the January 2017 DoD 5000.02.

These policy initiatives, along with the outreach efforts to government and industry, enable PARCA to ensure the balance between oversight and system impacts. PARCA believes EVM should be a self-evidently beneficial methodology that provides PMs accurate and timely insight into cost, schedule and technical performance of DoD programs. Through the changes coming to leadership and organization within DoD, PARCA will continue providing succinct guidance on the interpretation and implementation of EVM.

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