EIA 748-D EVMS Standard – <u>SAE Approved</u>

NDIA IPMD

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NDIA IPMD EIA 748 Working Group

Background

- **The NDIA Integrated Program Management Division (IPMD) is the author of and the steward for the EIA 748 Standard for Earned Value Management Systems**

- **The NDIA IPMD is responsible for maintaining the Standard every five years with SAE International, the standards body that sponsors the EIA 748 for the IPMD**
  - The IPMD also maintains a set of complementary guides to the Standard such as:
    - Intent Guide, Application Guide, System Acceptance Guide, IBR Guide, Surveillance Guide, Scalability Guide, and Master Definitions List for IPMD Guides

EIA 748 Overview

Update the Standard, solicit input for updates and improvement, maintain for accuracy

- History of the EVMS Standard
  - ✓ ANSI EIA 748 Initial release approved May 1998 (Electronic Industries Alliance)
  - ✓ ANSI EIA 748-A Reaffirmed August 2002
  - ✓ ANSI EIA 748-B approved July 2007
  - ✓ EIA 748-C approved March 2013 (TechAmerica)
  - ➢ **EIA 748-D approved 8 January 2019 (SAE International)**

Constituents critical to viability and longevity of the Standard

- Aerospace & Defense industry
- DoD EVM Policy owner – AAP (aka PARCA), Compliance owner - DCMA
- Intelligence Community
- US Gov. Civilian Agencies (e.g. NASA, DOE, FAA, etc.)

EIA 748-D Key Edits Approved by IPMD Board

- **Note 4: Complementary systems can interface with the EVM System – E/MRP & Agile**
- **Adds & Edits to Definitions to align with common terminology**
  - ACTIVITY/TASK
  - AUTHORIED UNPRICED WORK (AUW)
  - ELEMENT OF COST (EOC)
  - ESTIMATE AT COMPLETION (EAC)
  - ESTIMATE TO COMPLETION (ETC)
  - LEVEL OF EFFORT (LOE)
  - MANAGEMENT RESERVE (MR)
  - OVER TARGET BASELINE (OTB)
  - OVER TARGET SCHEDULE (OTS)
  - RISK OR RISK AND OPPORTUNITY (R&O)
  - SUMMARY LEVEL PLANNING PACKAGE (SLPP)
- **Added Graphic around Establishing Control Accounts**
- **Edit to planning package conversion – "ensure planning packages are converted into work packages prior to the start of the planned work"**
- **Added Material content documenting "Purchased Services"**
- **Updated and added suggested References**

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CURRENT   **REVISED**   2019-01-08

Earned Value Management Systems EIA748D

An Earned Value Management System (EVMS) for integrated program management will effectively integrate the work scope of a program with the schedule and cost elements for optimum program planning and control. The primary purpose of the system is to support integrated program management. The system is owned by the organization and is governed by the organization's policies and procedures. The principles of an EVMS are:

- Plan all work scope for the program to completion.

- Break down the program work scope into finite pieces that are assigned to a responsible person or organization for control of technical, schedule and cost objectives.

- Integrate program work scope, schedule, and cost objectives into a performance measurement baseline plan against which accomplishments are measured. Control changes to the baseline.

- Use actual costs incurred and recorded in accomplishing the work performed.

- Objectively assess accomplishments at the work performance level.

- Analyze significant variances from the plan, forecast impacts, and prepare an estimate at completion based on performance to date and the remaining work to be performed.

- Use the EVMS information in the organization's management processes.

The essence of earned value management is that a target planned value (i.e., budget) is established for each scheduled element of work at a level of detail appropriate for the degree of risk for the technical, schedule, and cost or uncertainty associated with the program. As these elements of work are completed, their target planned values are "earned". As such, work progress is quantified, and the earned value becomes a representation of accomplishment against which to measure what was spent to perform the work and what was scheduled.

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SYSTEMS MANAGEMENT STANDARD	EIA-748™	REV. D
	Issued 1998-06 Revised 2019-01 Superseding EIA-748C	
Earned Value Management Systems		

RATIONALE

Per SAE process for maintence of standards, this revision "D" to the earned value management standard has been updated to ensure it remains current, and relevant.

FOREWORD

The earned value management system (EVMS) guidelines incorporate best business practices to provide strong benefits for program enterprise planning and control. The processes include: integration of program scope, schedule, and cost objectives; the establishment of a baseline plan for accomplishment of program objectives; and the use of earned value techniques for performance measurement during the execution of a program. The system provides a sound basis for problem identification, corrective actions, and management replanning as may be required.

Different organizations must have the flexibility to establish and apply an integrated management system that suits their management style and business environment. First and foremost, the system must meet the organization's needs and good business practices. Therefore, the guidelines in this document are purposely high level and goal oriented, as they are intended to state the qualities and operational considerations of an integrated program management system using earned value analysis methods without mandating detail system characteristics.

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What's Next for the EIA-748 EVMS Standard?

- ## February 2018 presentation to the IPMD
  - Near Term – Reaffirm the Standard (Rev D)
    - Completed – this activity took more time than anticipated (roughly nine months behind the usual schedule with SAE)
  - Long Term – Evaluate the need for and possibility of substantial revision and modernization of the Standard for Revision E
    - Conducted initial surveys (21 questions) and interviews
      - Fall 2017 IPM Conference workshop – 35 surveys received
      - Consolidated observations and reported those findings
- ## With Revision D confirmed, can now focus on what's next for the standard

2017 Survey Observations as Background

- **The "next generation" EVMS Standard should provide expanded discussion/explanation of concepts**

- **Do not add a guideline for Program Management but do add one for Risk Management**

- **Only minor merging of guidelines should be considered**

- **Guideline 5 should be removed and call WBS/OBS integration the RAM**

- **Section 3 of the Standard should discuss the difference between funding and budget in an EVMS environment**

September 2018

Next Steps

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- **Assess the current environment and key imperative:**
  - Determine the appetite for change to the Standard
  - Determine the scope of changes to the Standard
    - For example: a minor consolidation and perhaps delete one guideline (20) or something more?
- **Establish a working group for Revision E to develop a four year plan/roadmap**
  - Coordinate with all stakeholders