EIA748 Rev E

Joan Ugljesa, Shane Olsen and Russ Rodewald
26 March 2025

Overview

- **27 Guidelines**

- **Current Status**

- **Next Steps – Approval Process**

27 Guidelines Section 2

NDIA

- 2.1 Organization
  a. (1) Decompose scope using a Work Breakdown Structure (WBS)
  b. (2) Identify organizational responsibilities for the work (OBS)
  c. (3) Integrate WBS and organizational structure to create control accounts
  d. (4) Integrate management processes using the WBS and organizational structure

- 2.2 Planning, Scheduling, and Budgeting
  a. (5) Schedule the authorized work
  b. (6) Identify indicators to measure progress
  c. (7) Establish a time-phased budget baseline
  d. (8) Authorize scope, schedule and budget by cost elements

NDIA

- 2.2 Planning, Scheduling, and Budgeting
    - e. (9) Plan the authorized scope, schedule and budget into work packages and planning packages.
    - f. (10) Establish work package performance measurement criteria
    - g. (11) Apply indirect rates
    - h. (12) Identify any undistributed budget and management reserve
    - i. (13) Reconcile to target cost goal

- 2.3 Progress Assessment and Data Collection
    - a. (14) Measure progress and determine earned value
    - b. (15) Collect actual costs for work performed
    - c. (16) Account for purchased material

- 2.4 Analysis and Management Reports
  a. (17) Generate cost and schedule variances
  b. (18) Identify and evaluate significant variances
  c. (19) Evaluate indirect cost variances
  d. (20) Update control account estimates at completion
  e. (21) Summarize, review and evaluate performance and variances
  f. (22) Implement managerial actions
  g. (23) Develop a revised program estimate at completion

- 2.5 Revisions and Data Maintenance
  a. (24) Incorporate customer directed changes
  b. (25) Document and reconcile internal replanning changes
  c. (26) Control retroactive changes
  d. (27) Over Target Budget and/or Over Target Schedule

Left Table

Area	Description	748D	748D	748E
Organization	Define the Authorized Work Elements for the Program	D01	2.1a	E01
Organization	Define the Program Organizational Structure	D02	2.1b	E02
Organization	Integrate Subsidiary Management Processes	D03	2.1c	E04
Organization	Identify Overhead Management	D04	2.1d	X
Organization	Integrate WBS/OBS to Create Control Accounts	D05	2.1e	E03
Planning, Scheduling, and Budgeting	Scheduling Work	D06	2.2a	E06
Planning, Scheduling, and Budgeting	Identify Products and Milestones for Progress Assessment	D07	2.2b	E05
Planning, Scheduling, and Budgeting	Establish the Performance Measurement Baseline	D08	2.2c	E07
Planning, Scheduling, and Budgeting	Authorize and Budget by Cost Elements	D09	2.2d	E08
Planning, Scheduling, and Budgeting	Determine Discrete Work and Objective Measures	D10	2.2e	E10
Planning, Scheduling, and Budgeting	Sum WP/PP Budgets to Control Account Budgets	D11	2.2f	E09
Planning, Scheduling, and Budgeting	Level of Effort Planning and Control	D12	2.2g	E10
Planning, Scheduling, and Budgeting	Establish Overhead Budgets	D13	2.2h	E11
Planning, Scheduling, and Budgeting	Identify MR and UB	D14	2.2i	E12
Planning, Scheduling, and Budgeting	Reconcile to Target Cost	D15	2.2j	E13
Accounting Considerations	Record Direct Costs	D16	2.3a	E15
Accounting Considerations	Summarize Direct Cost by WBS Elements	D17	2.3b	X
Accounting Considerations	Summarize Direct Cost by Organizational Stucture Elements	D18	2.3c	X
Accounting Considerations	Record/Allocate Indirect Costs	D19	2.3d	E15
Accounting Considerations	Identify Unit and Lot Costs	D20	2.3e	X
Accounting Considerations	Track and Report Material Cost/Quantities	D21	2.3f	E16
Analysis and Management Reporting	Calculate Schedule Variance and Cost Variance	D22	2.4a	E17
Analysis and Management Reporting	Analyze Significant Variances	D23	2.4b	E18
Analysis and Management Reporting	Analyze Indirect Cost Variances	D24	2.4c	E19
Analysis and Management Reporting	Summarize Performance Data and Variances	D25	2.4d	E21
Analysis and Management Reporting	Implement Corrective Actions	D26	2.4e	E22
Analysis and Management Reporting	Maintain Estimates at Completion	D27	2.4f	E23
Revisions and Data Maintenance	Incorporate Changes in a Timely Manner	D28	2.5a	E24
Revisions and Data Maintenance	Maintain Baseline and Reconcile Budgets	D29	2.5b	E25
Revisions and Data Maintenance	Control Retroactive Changes	D30	2.5c	E26
Revisions and Data Maintenance	Prevent Unauthorized Revisions	D31	2.5d	E27
Revisions and Data Maintenance	Document PMB Changes	D32	2.5e	E25

Right Table

748D	748E	748E	Description	Area
D01	E01	2.1a	Decompose Scope Using a Work Breakdown Structure	Organization
D02	E02	2.1b	Identify Organizational Responsiblies for the Work	Organization
D05	E03	2.1c	Integrate WBS/OBS to Create Control Accounts	Organization
D03	E04	2.1d	Integrate Management Processes Using the WBS and OBS	Organization
D06	E05	2.2a	Schedule the Authorized Work	Planning, Scheduling, and Budgeting
D07	E06	2.2b	Identify Indicators to Measure Progress	Planning, Scheduling, and Budgeting
D08	E07	2.2c	Establish a Time Phased Budget Baseline	Planning, Scheduling, and Budgeting
D09	E08	2.2d	Authorize Scope, Schedule and Budget by Cost Elements	Planning, Scheduling, and Budgeting
D10	E09	2.2e	Plan Authorized Scope, Schedule and Budget into WP/PPs	Planning, Scheduling, and Budgeting
D10, 12	E10	2.2f	Establish Work Package Performance Measurement Criteria	Planning, Scheduling, and Budgeting
D13	E11	2.2g	Apply Indirect Rates	Planning, Scheduling, and Budgeting
D14	E12	2.2h	Identify any Undistirbuted Budget and Management Reserve	Planning, Scheduling, and Budgeting
D11, 15	E13	2.2i	Reconcile to Target Cost Goals	Planning, Scheduling, and Budgeting
ADD	E14	2.3a	Measure Progess and Determine Earned Value	Progress Assessment and Data Collection
D16, 19	E15	2.3b	Collect Actual Costs for Work Performed	Progress Assessment and Data Collection
D21	E16	2.3c	Account for Purchased Material	Progress Assessment and Data Collection
D22	E17	2.4a	Generate Schedule and Cost Variances	Analysis and Management Reporting
D23	E18	2.4b	Identify and Evaluate Significant Variances	Analysis and Management Reporting
D24	E19	2.4c	Evaluate Indirect Cost Variances	Analysis and Management Reporting
ADD	E20	2.4d	Update Control Account Estimates at Completion	Analysis and Management Reporting
D25	E21	2.4e	Summarize, Review and Evaluate Performance Data and Variance	Analysis and Management Reporting
D26	E22	2.4f	Implement Management Actions	Analysis and Management Reporting
D27	E23	2.4g	Develop Revised Program Estimate at Complete	Analysis and Management Reporting
D28	E24	2.5a	Incorporate Customer Directed Changes	Revisions and Data Maintenance
D29, 32	E25	2.5b	Document and Reconcile Internal Replanning Changes	Revisions and Data Maintenance
D30	E26	2.5c	Control Retroactve Changes	Revisions and Data Maintenance
D31	E27	2.5d	Over Target Budget or Over Target Schedule	Revisions and Data Maintenance

Legend: New | Deleted | Minimal / No Impact | Merged | Modified

Option selected for releasing EIA748-E

1) **Publish EIA748 Rev E with Section 2 & 3 changes as drafted**
   a) The goal of including intent was to try to get the government to accept the whole standard, but no clear path at OSD or OMB for this to occur.
   b) With the intent published in the SAE standard, NDIA would lose Intellectual Property rights to publish the Intent Guide

2) **Publish EIA748 Rev E with Section 2 changes, maintain Section 3 consistent with Rev D except for minor updates**
   a) Since the GLs were already agreed to, this is an easier path
   b) Allows NDIA to retain use of the guidelines and publish the Intent Guide to the revised GLs
   c) Requires the Gov't to develop an EVMSIG update

3) **Do Nothing and Publish EIA748 Rev E with no changes**
   a) Maintains status quo on everything……

Current Status

- **Section 2 (Guidelines) completed and adjudicated with the joint Government and Industry Team**
  - 27 Guidelines in total
- **Agreement reached between NDIA and SAE**
  - Industry & Government able to use the GLs as defined in Section 2 for use in the NDIA Intent Guide & EVMSIG
- **Document submitted to SAE for comment and adjudication**

Path Forward: EIA-748E

NDIA

1) **EIA748 Rev E draft published to SAE Standard Works for comment**

    a)   G47 Systems Engineering Committee posted document to Standard Works for review

    b)   Both Industry and government can register for access to Standard Works to provide comments in the system

2) **Comment period to remain open until April 30**

    a)   Both Industry and government can comment on document in Standard Works

    b)   Comments to be adjudicated and document finalized through SAE G47 committee in coordination with NDIA by May 31.

3) **EIA748E adjudicated by May 31 and finalized for publication**

    a)   EIA748E finalized and posted to SAE in June

4) **NDIA Intent Guide to be updated in concert with EIA finalization**

    a)   Monitor and incorporate changes required due to EIA748 updates during adjudication

    b)   Distribute NDIA Intent Guide for comments once the EIA adjudication complete

    c)   Adjudicate comments and finalize Intent Guide for vote at Spring NDIA meeting

[G-47 Systems Engineering - SAE StandardsWorks](https://standardsworks.sae.org/standards-committees/g-47-systems-engineering#wips)

https://standardsworks.sae.org/standards-committees/g-47-systems-engineering#wips

Back-up

- 2.1 Organization
    a. (1) Define the authorized work elements for the program. A product-oriented work breakdown structure, tailored for effective internal management control, is commonly used in this process.
    b. (2) Identify the program organizational structure, including the major subcontractors, responsible for accomplishing the authorized work, and define the organizational elements where work will be planned and controlled.
    c. (3) Integrate the program work breakdown structure and organizational structure to identify management control points where responsibility is assigned to specific work scope.
    d. (4) Provide for the integration of the scheduling, budgeting, work authorization, and cost accumulation processes with each other, and, as appropriate, the program work breakdown structure and organizational structure to enable cost and performance measurement by elements of either or both structures.

- 2.2 Planning, Scheduling, and Budgeting
    a. (5) Schedule the authorized work in a manner that describes the sequence of work and identifies task interdependencies required to meet the requirements of the program.

    b. (6) Identify in the schedule the physical products, milestones, technical performance goals, or other objective indicators that will be used to measure progress.

    c. (7) Establish and maintain a time-phased budget baseline comprised of scope, schedule and budget at the control account level. Budget for far-term efforts may be held in higher-level accounts until an appropriate time for allocation at the control account level. Initial budgets established for performance measurement are based on either internal management goals or the external customer negotiated target cost including estimates for authorized but undefinitized work.

    d. (8) Authorize control account scope, schedule and budget comprised of elements of cost (labor, material, subcontractors, etc.) required to complete the effort.

- 2.2 Planning, Scheduling, and Budgeting
    e.   (9) Plan the authorized scope, schedule and budget into work packages and/or planning packages. Determine budgets in terms of dollars, hours, or other measurable units such that the sum of all work package and planning package budgets equal the control account budget.

    f.   (10) Establish objective performance measurement criteria for each work package consistent with the way work is expected to be accomplished. Only that effort which is not measurable is identified as level of effort.

    g.   (11) Apply indirect rates, developed by the responsible organizations, to the program's direct resource budgets, at the applicable level, to determine the indirect budgets that support the establishment of the performance measurement baseline.

    h.   (12) Identify any undistributed budget or management reserve.

    i.   (13) Provide that the program target cost is reconciled with the sum of all internal program budgets and management reserve.

- 2.3 Progress Assessment and Data Collection

    a. (14) Using predefined performance measurement criteria, status the schedule and assess physical progress to determine budget earned. Earned value for material items may not be credited earlier than the actual receipt of the material nor later than the consumption of the item.

    b. (15) Collect actual costs (direct and indirect), by elements of cost, from a formal system controlled by the general books of account for comparison to corresponding budgets in the EVMS. Where actual costs are not available for comparison, estimated costs will be entered into the EVMS.

    c. (16) Account for all purchased material, for which earned value has been calculated, including material residual to the program.

NDIA

- 2.4 Analysis and Management Reports

  a. (17) At least on a monthly basis, generate the following information for the control account and higher levels, as necessary for management control, using actual cost data from or reconcilable with the accounting system:

    1. Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance.

    2. Comparison of the amount of the budget earned and the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.

  b. (18) Identify and evaluate, at least monthly for each control account, the significant differences between both planned and actual schedule performance and planned and actual cost performance, analyze and provide the reasons for the variances in the detail needed by program management.

  c. (19) Evaluate indirect cost variances and the impact of indirect cost performance on individual program performance.

NDIA

- 2.4 Analysis and Management Reports
  - d. (20) Using the results of control account variance analysis and indirect performance evaluations, update the control account estimates at completion to reflect future resource requirements to complete the remaining authorized work and, by comparing to budgets, calculate the variance at completion.
  - e. (21) Summarize, review and evaluate the data elements and associated variances through the program work breakdown structure and/or organizational structure to support management needs and any customer reporting specified in the contract.
  - f. (22) Implement managerial actions taken as the result of earned value information.
  - g. (23) Develop a revised estimate of cost at completion for all authorized work based on performance to date, estimates of future resource requirements, and an evaluation of program risks and opportunities. Compare this estimate with the contract budget base to identify variances at completion to support internal management needs, applicable customer reporting, and funding requirements.

- 2.5 Revisions and Data Maintenance

  a. (24) Incorporate customer directed changes in a timely manner, documenting and reconciling the effects of such changes in scope, schedule and budget. When incorporating a customer directed change prior to negotiation, plan the work based on the estimated value of the scope.

  b. (25) Document and reconcile changes to current scope, schedule and budgets as a result of internal replanning.

  c. (26) Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments are made only for correction of errors, routine accounting adjustments, effects of customer or management directed changes, including implementation of a single point adjustment.

  d. (27) When necessary, propose, document, and establish a total program budget greater than the contract budget base (over target budget) and/or a total program schedule exceeding the contractual period of performance (over target schedule), to support management of the remaining authorized work. Advance notification must be provided to the customer prior to implementation.

IPMD Guides Update

Guides Steering Committee

Dan Bellovary

APPROVED FOR PUBLIC RELEASE

IPMD Guides Steering Committee

Overview

Maintain the set of IPMD Guides to reflect the latest changes in the EVMS Standard (EIA-748), related government policies and regulations as well as lessons learned and advancements in best practices for integrated program management.
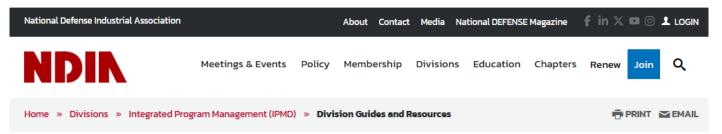
Leadership

Tracie Thompson
Tracie.Thompson@L3Harris.com

Steve Willey
Stephen.J.Willey@boeing.com

Joan Ugljesa
jugljesa@newvistasgroup.com

- **Mandatory three year review cycle for all guides – IPMD Committees may update guides more or less frequently**
- **The Guides Steering Committee:**
    - **Launches and supports update lead or IPMD Committees to update a guide**
    - **Advises IPMD Board of changes in policy or regulation that need to be immediately incorporated into one or more guides**
    - **Accepts out of cycle change requests to determine best course of action (appropriate and warranted, immediate update required, or hold for next regular update)**

NDIA IPMD Guides Location

Division Guides and Resources

IPMD Charter Bylaws, July 2022

Board of Directors Roles and Responsibilities, January 2025

Complementary documents to the EIA-748 Standard for Earned Value Management Systems

- EIA-748-C Designation Memo. Released March 2015. This letter is to inform members of the NDIA Integrated Program Management Division (IPMD) and our government partners of the correct designation of the EIA-748 Earned Value Management System (EVMS) Standard. The IPMD asks for your help in promoting the proper referencing of the EVMS Standard going forward. In the future, please use the nomenclature, EIA-748 Earned Value Management System (EVMS) Standard.

- Earned Value Management System Acceptance Guide. (Revised April 2023). This document provides guidance and a standard framework to prepare a contractor or a government agency, in the case where the EVM requirement is applied to the government work, to successfully demonstrate that the EVMS being used complies with the EIA-748 32 Guidelines and produces program/project performance data that contributes to sound capital investment decisions.

- Earned Value Management System Guideline Scalability Guide. Revision January 2020. The EVMS Guideline Scalability Guide was produced to support any agency or organization which does not have a contractual requirement to implement EVMS, but would still benefit from using EVM practices by implementing a scaled EVMS. It is intended for industry or government project personnel within: 1) entities such as universities, laboratories, small businesses, suppliers, and vendors with small to mid-size projects; 2) large corporations with small projects/contracts or that issue contracts to small businesses, suppliers, and vendors; and 3) any government agency with small contracts. The guide focuses on scaling the EVMS Standard 32 Guidelines in a way that reflects the size, complexity, risk, and type of work involved. A

Integrated Program Management (IPMD)

Board of Directors

Division Member Spotlight

Upcoming Events

Previous Meeting Presentations

Previous Webinar Presentations

Division Guides and Resources

Awards

IPMD Committees

https://www.ndia.org/divisions/ipmd/division-guides-and-resources

March 2025 Guide Status and Updates

NDIA

Guide	Update Lead	Status
Intent	EIA-748 Reaffirmation Working Group, Guides Steering Committee	Reaffirmation Version D available from SAE EIA-748 D update published August 2018 Note: update will be parallel activity to EIA-748 Rev E
IBR		Revision 4 published January 2023
Surveillance	Dan Bellovary	Revision 5 published December 2024
Application	Guides Steering Committee	Revision 4 published September 2022 – Minor refresh update, provide to membership for electronic vote to approve after March meeting
Acceptance		Revision 4 published January 2023
PASEG	Planning and Scheduling Committee	Version 5.0 published September 2022 – Update in process
Predictive Measures	Jeff Isom	Revision 2 published March 2021 – Update in process
Agile and EVM	Agile Committee	Revision 1.4 published December 2022 – Update in process
Scalability Guide	Maintain as legacy document	Revision 2 published January 2020
Contracting with EVM	Contracts Committee	Revision 1.0 published September 2022 – Update in process
Guides Master Definitions List	Guides Steering Committee	Posted on NDIA web site – Rev March 2025

3/24/25

IPMD Guides Overview

NDIA

EIA-748 Standard for EVMS

EVMS Application Guide

Contracting with EVM Requirements

EVMS Standard Intent Guide	EVMS Acceptance Guide	Integrated Baseline Review Guide	Surveillance Guide

Planning & Scheduling Excellence Guide (PASEG)	Guide to Managing Programs Using Predictive Measures	Industry Practice Guide for Agile on EVM Programs	EVMS Guideline Scalability Guide