



Implementing Earned Value Management (EVM) on NASA Contracts

Agency EVM Capability Training Series

Revised April 2023



Agenda

- Background
- Purpose
- Desired Learning Objectives
- NASA EVM Contract Policy
- Implementing EVM on Contracts
- Available Resources / Tools
- Summary

EVM



- Issues:
 - Majority of NASA major acquisitions are performed by contractors
 - Continued inclusion of NASA's acquisition practices in the GAO's biennial High Risk Report
 - Numerous GAO findings related to poorly defined or inconsistent application of EVM requirements on NASA contracts
 - NASA decision makers need timely, consistent and reliable contract performance data
- Related Activities:
 - NASA Source Selection Guide *updated* March 2012 to emphasize use of EVM Focal Point (FP) in Source Evaluation Boards (SEB)
 - OCFO memo *issued* May 13, 2019, SUBJECT: Agency Policy Guidance to Enhance Earned Value Management (EVM) and Create a Schedule Repository, stated policies resulting from GAO High Risk List Corrective Action Plans (CAPs) to include the following ...*Improve EVM flow-down for contracts by following the guidance in the NASA EVM Contract Requirements Checklist located at <https://www.nasa.gov/evm/regulations>*



- Ensure NASA stakeholders and supporting personnel understand when EVM is required and how best to incorporate EVM into solicitations and contracts
- Improve contract performance management and reporting across the Agency



Desired Learning Objectives

- Describe when EVM is and isn't applicable to a contract
- Understand all aspects of EVM in NASA contracts
- Explain how to apply EVMS provision and clause in solicitations and contracts
- Develop SOW language in support of EVM
- Define data requirements for contracts that require EVMS
- Define and incorporate EVM into the award fee plan
- Locate supporting information and assistance



NASA EVM Contract Policy



Contract EVM Requirements Hierarchy

Capital Programming Guide,
Supplement to OMB Circular
A-11

- Requires contractors for major acquisitions with development effort to use an EVMS meeting the guidelines in EIA-748
- Requires use of FAR EVMS provisions and clause

Federal Acquisition
Regulation (FAR) Subpart
34.2

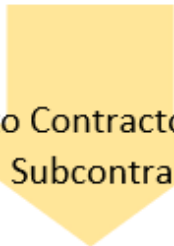

- Requires an EVMS for major acquisitions for development in accordance with OMB A-11
- Defines Pre-Award IBR/Post-Award IBR provisions and EVMS clause that must be substantially the same as Agency-defined

NASA FAR Supplement
(NFS) 1834.2

- Defines major acquisitions for NASA
- Specifies solicitation provision and contract clause similar to FAR



NASA EVM Contract Requirements

NASA Projects			
Small Cat 3/Class D ≤ \$150M	Life Cycle Cost (LCC) < \$250M	Life Cycle Cost (LCC) ≥ \$250M	
EVM Optional for In-house Projects		EIA-748 (32) Guidelines Compliance & Utilize NASA EVM Capability Process	
 Flow-down to Contractors and Lower Tier Subcontractors		 All costs (including contracts) are part of Project LCC	
NASA Contracts			
Contracts & Subcontracts Supporting Small Cat 3/Class D Missions	Flow-Down to Contractors and Subcontractors (excluding contracts that support Small Cat 3/Class D Missions)		
	< \$20M	\$20M - <\$100M	≥ \$100M
Non-EVM Performance Mgmt	Non-EVM Performance Mgmt	EIA-748 (32) Guidelines Compliance	EIA-748 (32) Guidelines Validated
Performance Mgmt Terms and Conditions of DRDs	Performance Mgmt Terms and Conditions of DRDs	Full EVM Terms and Conditions of DRDs	Full EVM Terms and Conditions of DRDs



NASA EVM Contract Requirements

- NASA contract requirements are captured in several documents
 - NPR 7120.5
 - NFS 1834.2
 - NASA PCD 15-05, Class Deviation to NFS 1834.2, 1834.203-70, 1852.234-1 and 1852.234-2 – EARNED VALUE MANAGEMENT SYSTEM THRESHOLD
 - NASA PIC 15-06, Guidance on the Integrated Program Management Report for Earned Value Management
 - NASA PIC 15-07, Guidance on the Integrated Program Management Data Analysis Report for Earned Value Management
 - SMD Mission Risk Class-D Space Flight Projects and Contracts Deviation
- NPR 7120.5F
 - 2.2.8.2 EVM system requirements for contracted work shall be applied to suppliers in accordance with the NASA Federal Acquisition Regulation (FAR) Supplement, independent of phase and the \$250M threshold (<https://www.hq.nasa.gov/office/procurement/regs/NFS.pdf>).
 - For contracts that require EVM, an Integrated Program Management Report (IPMR) and WBS are the Data Requirements Descriptions (DRDs) that are included in the contract and/or agreement.

Note that the IPMDAR has replaced the IPMR per NASA PIC 15-07; NFS will be updated



NASA PCD 15-05, Class Deviation to NFS 1834.2, 1834.203-70, 1852.234-1 and 1852.234-2

- (a) NASA requires use of an Earned Value Management System (EVMS) on acquisitions for development or production work, including development or production work for flight and ground support systems and components, prototypes, and institutional investments (facilities, IT infrastructure, etc.) as specified below:
- (1) For cost or fixed-price incentive contracts and subcontracts valued at ~~\$50~~ [\$100] million or more the contractor shall have an EVMS that has been determined by the cognizant Federal agency to be in compliance with the guidelines in the Earned Value Management Systems, Electronic Industries Alliance (EIA)-748, Current Release (EIA-748 EVMS).
 - (2) For cost or fixed-price incentive contracts and subcontracts valued at \$20 million or more but less than ~~\$50~~ [\$100] million, the contractor shall have an EVMS that complies with the guidelines in EIA-748, as determined by the cognizant Contracting Officer.
 - (3) For cost or fixed-price incentive contracts and subcontracts valued at less than \$20 million the application of EVM is optional and is a risk-based decision at the discretion of the program/project manager.



- (b) Requiring earned value management for firm-fixed-price (FFP) contracts and subcontracts of any dollar value is discouraged; however, an Integrated Master Schedule (IMS) and adequate reporting shall be required to plan and track schedule performance for development or production contracts valued at \$20 million or more. In addition, for FFP contracts that are part of a program/project of ~~\$50~~[\$100] million or more, the contracting officer shall collaborate with the government's program/project manager to ensure the appropriate data can be obtained or generated to fulfill program management needs and comply with NASA Procedural Requirements (NPR) 7120.5.

- (c) An EVMS is not required on non-developmental contracts for engineering support services, steady state operations, basic and applied research, and routine services such as janitorial services or grounds maintenance services.



NASA SMD Mission Risk Class-D Space Flight Projects Deviation from FAR and NFS 1834.201 EVMS Requirement

- Reference NASA Assistant Administrator for Procurement memo, dated 28 June 2018, SUBJECT: Approval of Request to Deviate – Earned Value Management Systems from SMD Class-D Tailored/Streamlined Missions, located at https://www.nasa.gov/sites/default/files/atoms/files/approved_smd_evms_deviation.pdf



NASA EVMS and Reporting Reqmnts for Contracts

(See PCD 15-05, SMD Class-D EVMS Deviation & PIC 15-06)

Contract/ Subcontract Total Estimated Value	EIA-748 EVMS Standard (PCD 15-05)	NASA EVMS Solicitation and Contract Clause (PCD 15-05)	IPMDAR DRD (PIC 15-07)	WBS DRD	Reporting for Contracts with No EVM Requirements (Non-EVM)
Cost or FPI \$100M or greater	Validation required	Required: NFS 1852.234-1 and NFS 1852.234-2	Required: IPMDAR DRD	Required	Not Required
Cost or FPI \$20M but less than \$100M	Compliance with guidelines; Validation not required	Required: NFS 1852.234-1 and NFS 1852.234-2 with Alternate 1	Required: IPMDAR DRD	Required	Not Required
Cost or FPI Less than \$20M; Major Acquisition; Non- developmental contracts	Not required Optional at the discretion of PM	Not required (If PM elects to require EVM then NFS 1852.234- 1 and NFS 1852.234-2 with Alternate 1 is required	Required: IPMDAR DRD - IMS Only	Required	Required if EVMS and IPMDAR not required
FFP greater than \$20M	Not required	Not required	Required: IPMDAR DRD - IMS Only	Required	Not required
Contracts Supporting SMD Cat 3/Class D Missions less than \$150M	Not required	Not required	Required: IPMDAR - IMS Only	Required	Required if EVMS and IPMDAR not required



Implementing EVM on NASA Contracts

Overview of Contract Management Process Flow & Responsibilities



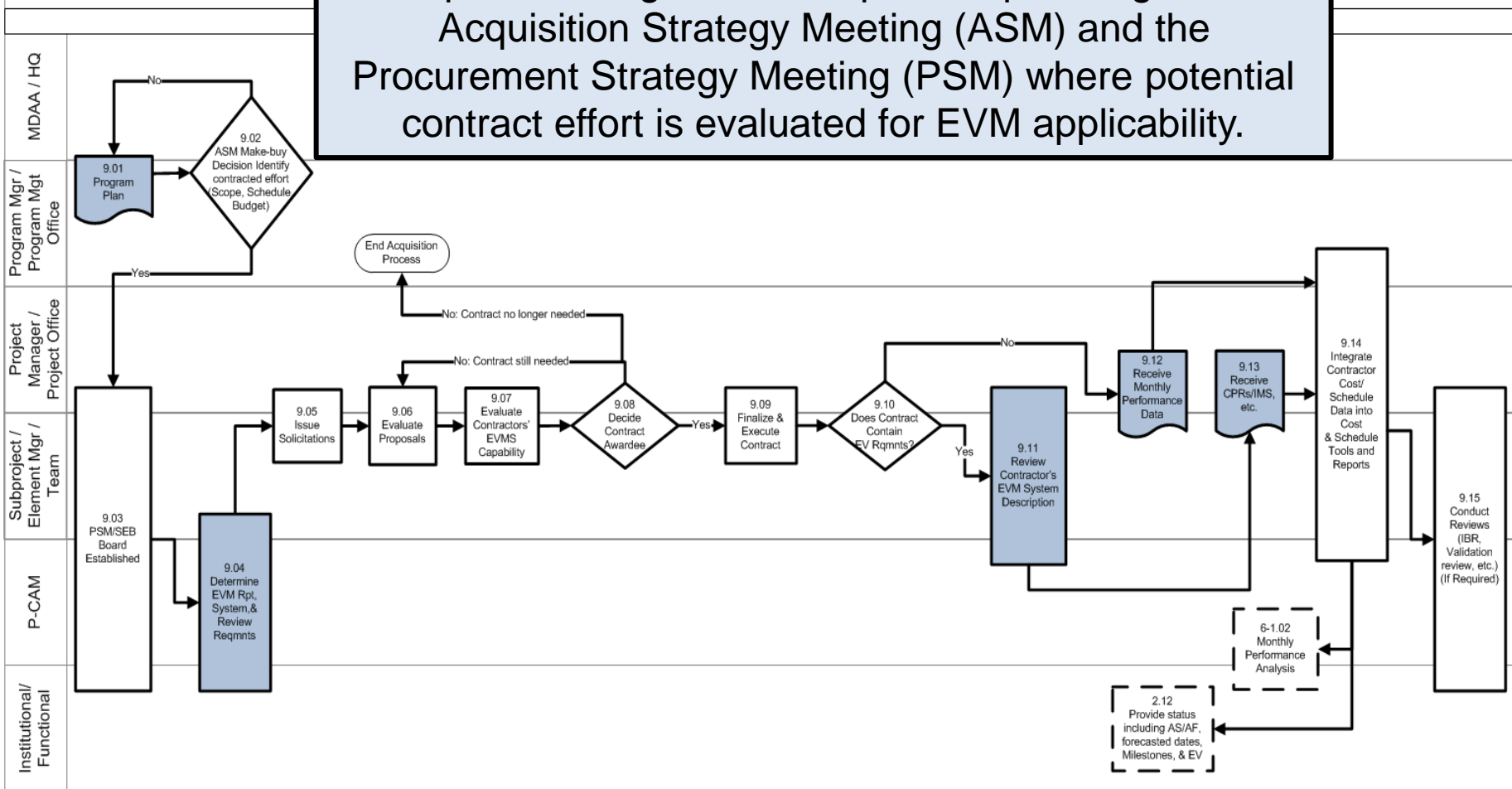
Agency

Contract management is a key process of EIA-748 EVMS. The NASA EVM System Description describes the process for applying and using EVM on contracts. The process begins with acquisition planning via the Acquisition Strategy Meeting (ASM) and the Procurement Strategy Meeting (PSM) where potential contract effort is evaluated for EVM applicability.

Process flow, illustration attached

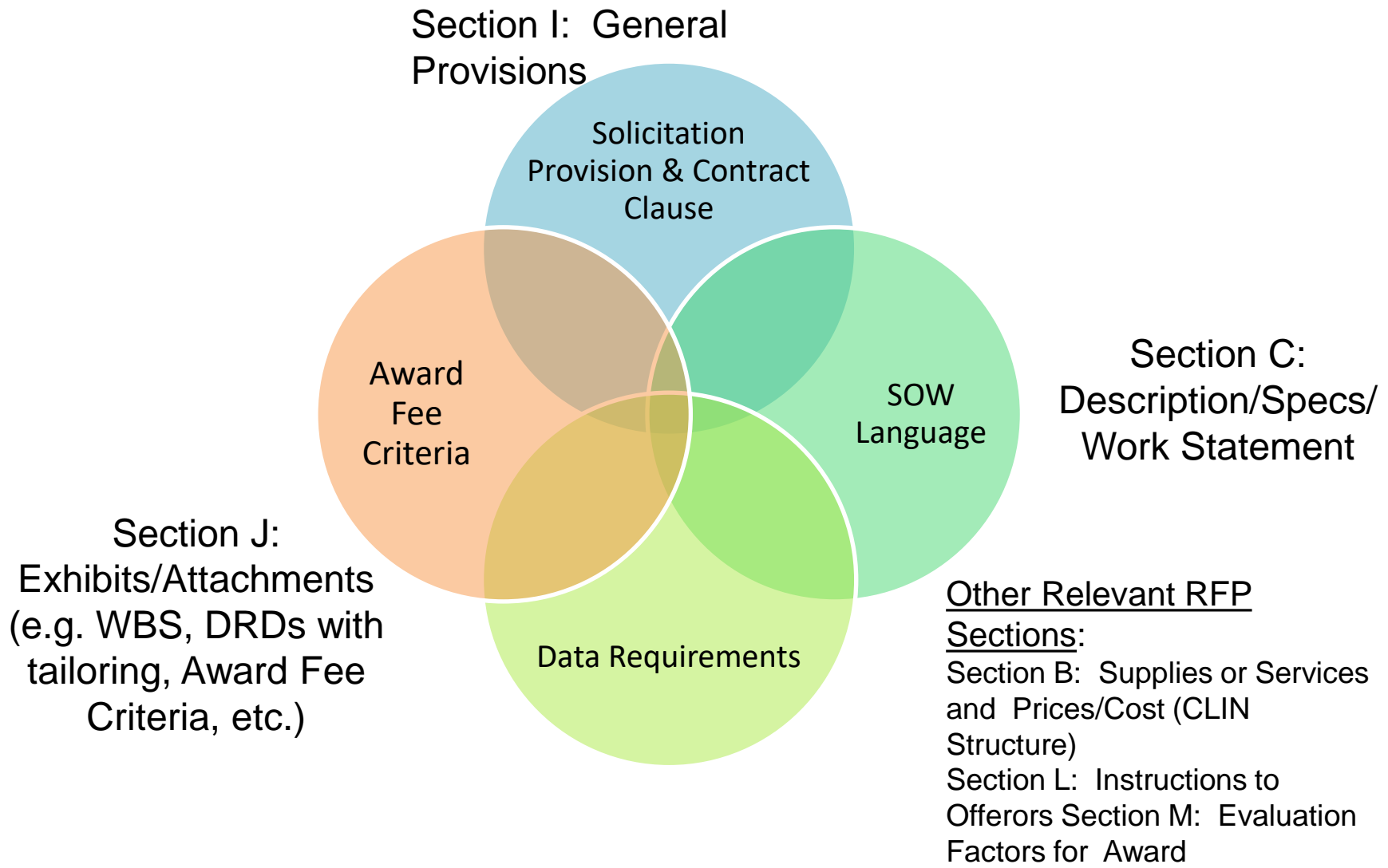
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9.0 Contract Management





Key Solicitation and Contract Elements In the RFP / Contract





Solicitation Provision and Contract Clause



NASA FAR Supplement (NFS)

- NASA uses a provision and clause to specify EVM requirements in solicitations and contracts
 - Provision: NFS 1852.234-1, Notice of EVMS
 - Clause: NFS 1852.234-2, EVMS
- Insert NFS 1852.234-1 into solicitations
 - Requires the offeror provide documentation that its EVMS complies with EIA-748
 - Requires the offeror to submit a plan for compliance or formal validation – if not already compliant/validated – and defines the contents of that plan
 - Government will review the plan, with assistance from the offeror, prior to contract award
 - Requires the offeror to identify subs or major subcontracted effort for flow down of EVMS; NASA will agree with the plan prior to contract award
 - Requires the offeror to describe plans for subcontractor compliance



NFS 1852.234-2 – What's in it?

- Insert NFS 1852.234-2 into solicitations and contracts
 - Requires the contractor to use:
 - An EVMS that has been determined by the Cognizant Federal Agency to be compliant with EIA-748 *and*
 - EVM procedures that provide for the generation of timely, accurate, reliable and traceable information for the CPR* and the IMS* required by the contract
 - If contractor does not have a validated EVMS or EVMS that complies with the EIA-748 guidelines at award, it shall follow the approved compliance/validation plan in a timely fashion
 - If contractor does not follow approved compliance/validation plan or correct all resulting system deficiencies identified in a compliance review within a reasonable time, then CO may take remedial action
 - Government will conduct IBRs within 180 days after contract award (if pre-award IBR not conducted), or within 60 days after significant contract change.
 - Contractor proposed EVMS changes require approval of the Cognizant Federal Agency prior to implementation.
 - Contractor agrees to provide access to all pertinent records and data requested by the CO or his representative to permit Government surveillance to ensure contractor's EVMS complies and continues to comply with EVMS guidelines.
 - Requires the contractor to ensure subcontractors (listed in clause) comply with the EVMS requirements of this clause.

Note that the IPMDAR has replaced the IPMR per NASA PIC 15-07; NFS will be updated



Input to Clause

- NFS 1852.234-1 can be inserted into the solicitation without modification
- NFS 1852.234-2 will require inputs prior to incorporation
 - For the solicitation
 - Use Alternate I when the contract is valued at less than \$100M
 - Substitute Alternate I for paragraph b of the standard clause
 - For the contract
 - Identify subcontractor flow down





Standard Clause

Standard Clause

If, at the time of award, the Contractor's EVMS has not been determined by the Cognizant Federal Agency to be compliant with the EVMS guidelines, or the Contractor does not have an existing cost/schedule control system that is compliant with the guidelines in the EIA-748 Standard (current version at the time of award), the Contractor shall apply the system to the contract and shall take timely action to implement its plan to obtain compliance/validation. The Contractor shall follow and implement the Approved compliance/validation plan in a timely fashion. **The Government will conduct a Compliance Review to assess the contractor's compliance with its plan, and if the Contractor does not follow the approved implementation schedule or correct all resulting system deficiencies identified as a result of the compliance review within a reasonable time, the Contracting Officer may take remedial action, that may include, but is not limited to, a reduction in fee.**

Standard Clause with Alternate 1

If at the time of award, the Contractor's EVMS has not been determined by the Cognizant Federal Agency to be compliant with the EVMS guidelines, or the Contractor does not have an existing cost/schedule control system that is compliant with the guidelines in the EIA-748 Standard (current version at the time of award), the Contractor shall apply the system to the contract and shall take timely action to implement its plan to be compliant with the guidelines. **The Government will not formally validate/accept the Contractor's EVMS with respect to this contract. The use of the Contractor's EVMS for this contract does not imply Government acceptance of the Contractor's EVMS for application to future contracts. The Government will monitor compliance through routine surveillance.**



Subcontracts with EVM Requirements

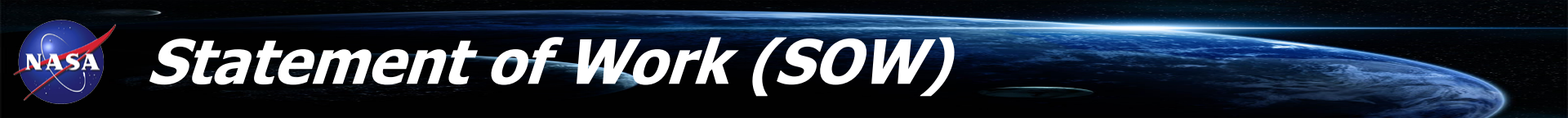
(f) The Contractor shall be responsible for ensuring that its subcontractors, identified below, comply with the EVMS requirements of this clause as follows:

(1) For subcontracts with an estimated dollar value of ~~\$50M~~[\$100M] or more, the following subcontractors shall comply with the requirements of this clause. (Contracting Officer to insert names of subcontractors or subcontracted effort).

(2) For subcontracts with an estimated dollar value of less than ~~\$50M~~[\$100M], the following subcontractors shall comply with the requirements of this clause except for the requirement in paragraph (b), if applicable, to obtain compliance/validation. (Contracting Officer to insert names of subcontractors or subcontracted effort.)



Statement of Work (SOW)



Statement of Work (SOW)

- The SOW can be used to provide additional instructions and guidance to contractors when EVM is required.
- The SOW shall not contain guidance or direction that conflicts with, removes, or adds work scope to the offeror's validated EVMS.
- Refer to Appendix C of the NASA EVM Implementation Handbook (NASA EVM Website <https://www.nasa.gov/evm/handbooks>) for sample SOW language.





Sample SOW Input – Project Management Reviews

- Project Management Reviews. The contractor shall conduct Project Management Review (PMR) meetings at mutually agreed upon dates and locations. During the reviews, the contractor shall present integrated cost, schedule, and technical performance status. Integrated Product Team leads or functional managers shall include cost information in discussions of schedule status, technical performance, and risk using earned value management as an integrating tool. The following shall be addressed: Cost/schedule trends, significant cost/schedule/technical variances, projected impacts, quantified risk assessments, and corrective action plans.



Sample SOW Inputs - IBR

- Integrated Baseline Reviews (IBRs). The contractor shall engage jointly with the Government's program/project manager in IBRs to evaluate the risks inherent in the contract's planned performance measurement baseline (PMB). Initially, this shall occur as soon as feasible but not later than 180 days after contract award, and subsequently following all major changes to the baseline. Each IBR should verify that the contractor is using a reliable PMB, which includes the entire authorized contract scope of work, is consistent with contract schedule requirements, and has adequate resources assigned. Each IBR should also be conducted on subcontracts that meet or exceed the EVM application threshold. The prime contractor shall lead the subcontractor IBRs, with active participation by the government.



Data Requirements



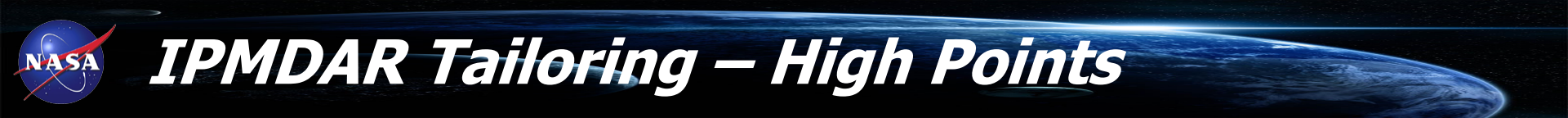
EVM Data Requirements

- Typical data requirements for major contracts
 - Integrated Program Management Data Analysis Report (IPMDAR)
 - Work Breakdown Structure (WBS) and WBS Dictionary

- Contracts that do not meet the threshold for EVM may require reporting to support project level EVM planning and analysis
 - A Master Schedule – statused monthly
 - A Contractor-assigned value for each milestone/deliverable item
 - A funding profile (as appropriate)
 - A milestone or event billing plan and/or progress payment plan (if applicable)
 - A time phased spend plan (as appropriate)
 - A time phased ETC, revised annually (minimum)
 - A monthly status report (optional)



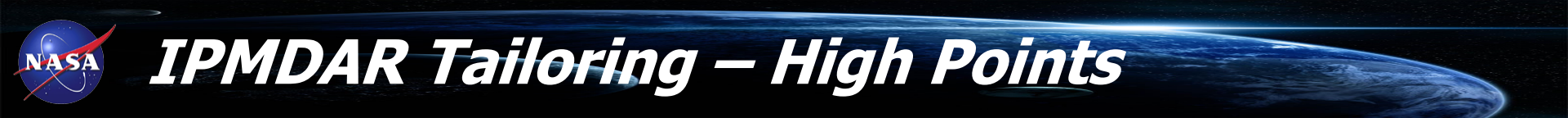
- The IPMDAR contains data for measuring contract execution progress on NASA contracts. The IPMDAR's primary purpose to the Government is to reflect current contract performance status and the forecast of future contract performance. The IPMDAR consists of the following three components:
 - Contract Performance Dataset (CPD). Provides performance/execution data from the contractor's existing management systems.
 - Schedule (Comprised of both the Native Schedule File and the Schedule Performance Dataset (SPD)). Provides data from the contractor's Integrated Master Schedule (IMS).
 - Performance Narrative Report (Comprised of both the Executive Summary and the Detailed Analysis Report). Provides narrative analysis of data provided in the CPD and the Schedule.



IPMDAR Tailoring – High Points

- Delivery Timing
 - Incremental* – enables components to be delivered as they are ready – Schedule usually earliest; Performance Narratives take more time
 - Single Submission – all IPMDAR components delivered on the same day
 - In both cases, DID requires delivery NLT 16 days after close of contractor’s accounting month
- Reporting level – Control Account or Work Package
- Variance reporting Approach
 - Established thresholds, top drivers or Government requested *
- Major Subs – data delivery directly to NASA or not
- Additional SRA’s – DID requires an SRA before an Integrated Baseline Review (IBR) or an Over Target Baseline/Over Target Schedule (OTB/OTS), at a minimum.

* Preferred Methodology to increase Government involvement, target and potentially reduce contractor effort, and improve timeliness



IPMDAR Tailoring – High Points

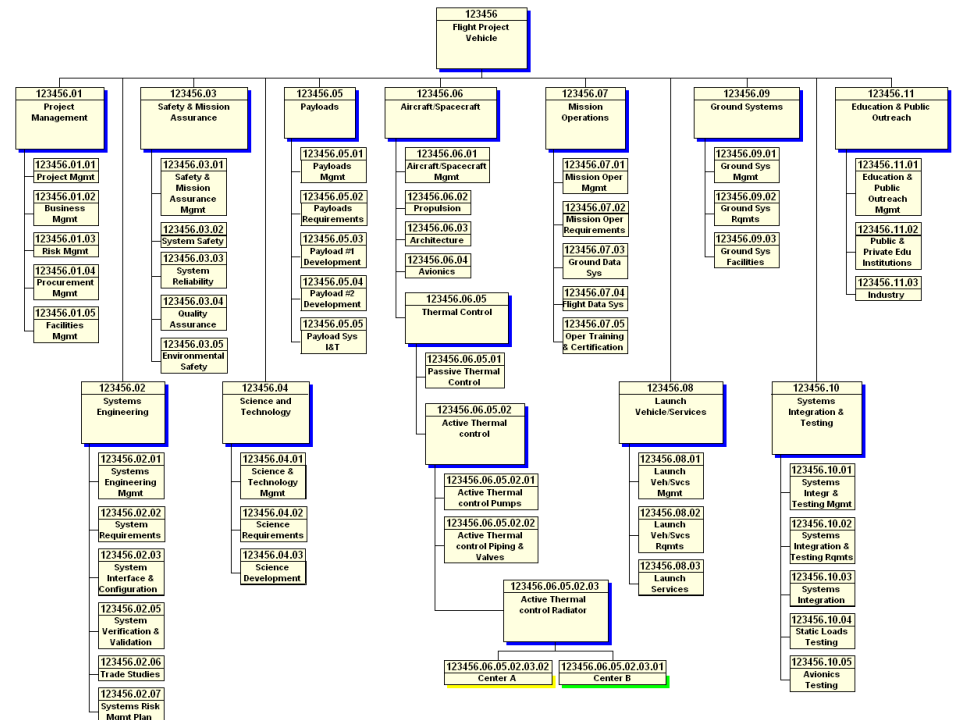
- The DID does not specify a particular scheduling tool; any tool requirements would be specified in the DRD
- Data Dictionary required as a part of the schedule submission.
- Schedule Analysis Requirements in Performance Narrative Report
- The DRD must define specific milestones for driving path(s)
- DID does not require a resource loaded IMS; any requirement for a resource loaded IMS must be included in the DRD

Others identified in NASA IPMDAR Tailoring Supplement and the DoD IPMDAR Implementation and Tailoring Guide



Data Requirements - WBS

- The Contract Work Breakdown Structure (WBS) DRD will be included in all contracts requiring EVM. A product oriented WBS in accordance with NASA WBS Handbook is mandatory when EVM is required. A sample WBS DRD can be found in Appendix D of the NASA WBS Handbook. The NASA WBS Handbook can be found on the NASA EVM website at <https://www.nasa.gov/evm/handbooks>.





WBS DRD Tailoring

- Project Managers must specify certain details in the WBS DRD to ensure adequate insight into contract performance
 - Initial Submission – draft with proposal
 - Submission Frequency – 30 days after ATP; revised pages shall be submitted 10 calendar days after contract WBS changes
 - Content
 - CWBS – Hierarchical structure with element titles and numbers
 - CWBS Dictionary- CWBS element title, CWBS element code, CWBS element content description (including quantities, relevant associated work, and contract end items where applicable), CWBS Index, SOW paragraph number, Specification (number and title) associated with the CWBS element (if applicable), Contract line item associated with the CWBS element, Date, revision number, revision authorization and approved changes, Contract Identification Number, Budget and reporting number (i.e., Charge Code)
 - Format – chart format, electronic and hard copy



Data Requirements - NF 533

- Contractor Financial Management Reports, Monthly and Quarterly, NASA Forms (NF) 533M and 533Q respectively, are required on contracts (see NPD 9501.1I and NPR 9501.2) and, when EVMS is required, will reflect information consistent with the IPMDAR and generated from the same management information systems.



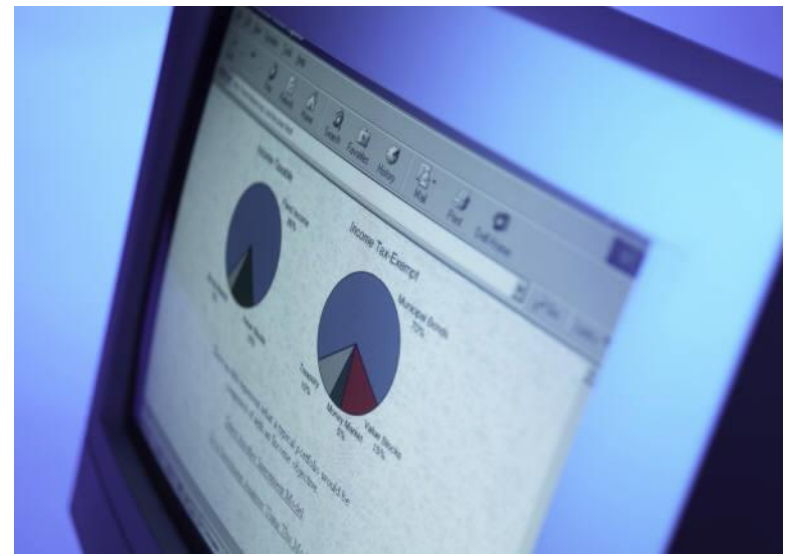


- NASA policy requires the implementation of EVM on projects that meet established parameters and thresholds.
- In some cases, EVM is applicable to a project but not to a contract (e.g. steady state or level of effort and do not meet the EVM requirements or development contracts that are below the threshold for applying EVM).
- Ensure data elements required to support project-level EVM analysis and reporting are requested from these contracts
- See the NASA EVM website for additional guidance and sample DRDs (Reporting for Contracts with No EVM Requirements at <https://www.nasa.gov/evm/guidance>).



Data Elements to Support EVM

- Actual cost data
- Time-phased cost plans (including changes to those plans)
- Time-phased Estimates to Complete (ETC)
- Work Status
- Variance Explanations
- Always include the WBS DRD to serve as a common framework for cost, schedule, and technical planning





Data Element Sources

Element:	Actual Cost	Cost Plans	Forecast	Work Status	Variance Explanation
Source Of:	ACWP	BCWS BAC	EAC ETC	BCWP	Analysis
Options:	-NF 533 -DRD - Contractor System Access	- Developed by NASA PM - DRD	-Developed by NASA PM -DRD	-IMS -Status Meetings -DRD	-Status Meetings - Formal Reporting DRD

- All sample DRDs are included in *Reporting for Contracts with No EVM Requirements* at <https://www.nasa.gov/evm/guidance> .
- Data elements can be combined into one DRD or kept as multiple DRDs.
- Review other DRDs on the contract to see if these DRDs provide data needed to support EVM planning and analysis as is or with minimal changes required.
- Note that if developed by the NASA PM, contract may need to request rate information.



Integrated Baseline Reviews (IBRs)

- IBRs are required whenever EVM is required.
- For contracts, IBRs will be conducted within 180 calendar days after contract award (if a pre-award IBR has not been conducted), or exercise of significant options, or within 60 calendar days after incorporation of major modifications.
- Project Managers will lead their Prime Contractor IBRs (with support of EVM and schedule subject matter experts).
- See the NASA IBR Handbook for instructions, tips, and tools on how to conduct an IBR. The NASA IBR Handbook can be found on the NASA EVM website at <https://www.nasa.gov/evm/handbooks>.





Award Fee Criteria



Award Fee Criteria

- The application of EVM and IBRs in the award fee criteria is a valuable tool to promote good project management. However, the use of a single EVM indicator, such as the Cost Performance Index (CPI), or the IBR event, is not recommended.
- See section 3.2.1 of the [NASA EVM Implementation Handbook](#) for examples of effectively incorporating EVM and IBRs into the award fee evaluation





Recommended EVM AF Criteria

- A recommended approach for EVM award fee criteria is to use qualitative measures such as
 - The contractor shall maintain a current and realistic Estimate at Completion (EAC)
 - The contractor shall provide effective and updated variance analysis
 - Risk management is used in cost control
 - Integration of subcontractor performance into the performance measurement baseline is current and accurate
 - EVM is effectively integrated and used for program management.
 - Contractor must maintain a realistic and adequate baseline, and have it available for review by the Government upon request



EVM in the Source Selection Process

- SEBs are required for competitive acquisitions of \$50M or more (including all options)
- NASA SEB Guide updated March 2012 to emphasize use of EVM FPs:
 - “SEB Composition:For example, when Earned Value Management Systems (EVMS) and reporting are required in accordance with NFS 1834.2, the applicable NASA EVM Focal Point or designee should be utilized as technical advisors or ex-officio members of the SEB and consulted as needed.”
- SEB activities include developing the procurement request package (SOW, data requirements, award fee criteria, etc.), draft RFP, final RFP, evaluating the offerors’ proposals, past performance, etc.



Available Resources/Tools



Available Resources/Tools

- EVM Focal Point (FP)
 - Each Center, Mission Directorate and HQ Mission Support Office have an EVM FP
 - A current listing can be found on the NASA EVM Website at <https://www.nasa.gov/evm/evmwg>
- EVM Contract Requirements Checklist
 - Tool for Program/Project Managers and Contracting Officers to use when defining appropriate EVM requirements for solicitations and contracts.
 - Found at <https://www.nasa.gov/evm/regulations>



Available Resources/Tools (Cont.)

- Integrated Program Management Data Analysis Report (IPMDAR) Data Requirements Description (DRD)
 - Found in appendices of the NASA IPMDAR Tailoring Supplement at <https://www.nasa.gov/evm/guidance>
- Contract Work Breakdown Structure (CWBS) DRD
 - Found in Appendix D of the NASA WBS Handbook at <https://www.nasa.gov/evm/handbooks>
- IPMDAR – Schedule Only DRD (for contracts with no EVM requirements)
 - Found in appendices of the NASA IPMDAR Tailoring Supplement at <https://www.nasa.gov/evm/guidance>
- Reporting for Non-EVM Contracts DRDs
 - Located at <https://www.nasa.gov/evm/guidance>
- NASA Integrated Baseline Review (IBR) Handbook
- Handbooks provide a standard DRD format and instructions for tailoring
 - All Handbooks can be found at on the NASA EVM Website at <https://www.nasa.gov/evm/handbooks>



Additional Information

- NASA EVM: <https://www.nasa.gov/evm>
- NASA FAR Supplement (NFS) 1834.2--Earned Value Management System (See PCD 15-05)
- NASA Procedural Requirements (NPR) 7120.5, "NASA Space Flight and Project Management Requirements"; NPR.7120.7, "NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements", NPR 7120.8, "NASA Research and Technology Program and Project Management Requirements." https://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=7
- NASA Source Selection Guide, June 28, 2017
https://inside.nasa.gov/sites/default/files/system/nasa_source_selection_guide.pdf
- EVM Community of Practice: <https://www.dau.mil/cop/evm/Pages/Default.aspx>
- National Defense Industrial Association (NDIA) Integrated Program Management Division (IPMD): <https://www.ndia.org/divisions/ipmd>

A whiteboard on a wooden easel is positioned in front of a large window. The word "Summary" is written in a black, cursive font on the whiteboard. The background shows a blurred view of a building and greenery outside the window.

Summary



Summary

- EVM planning activities must begin early – i.e., in the acquisition planning phase (ASP, ASM, PSM)
- Properly defined EVM requirements in the RFP are the first steps to EVM success in the contract
- EVM data requirements in the contract should reflect the stakeholders' need for EVM data throughout the performance period
- Waivers to the NFS must require approval of NASA HQ Office of Procurement

EVM

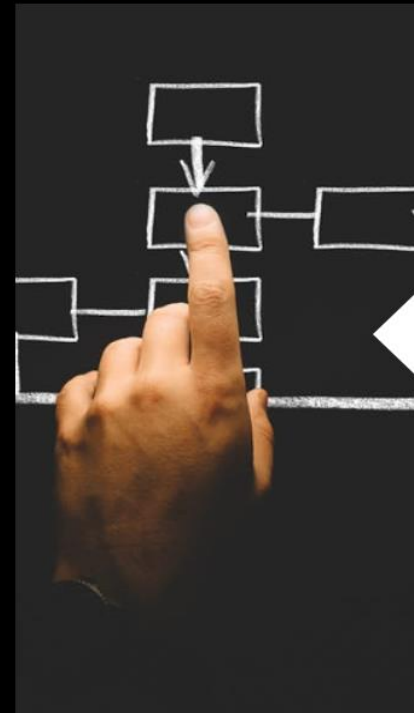


For More Information Visit NASA EVM Website

<https://www.nasa.gov/evm>



EVM (Earned Value Management)



EVM Overview

EVM is an integrated management control system for assessing, understanding and quantifying what a contractor or field activity is achieving with program dollars.

- Integrates technical, cost, schedule, with risk management
- Allows objective assessment and quantification of current project performance
- Helps predict future performance based on trends.

EVM provides project management with objective, accurate and timely data for effective decision making.

[Click here to read more about EVM](#)



Tutorial



Regulation/Requirements



Handbooks

Looking for EVM Implementation Handbooks? Look no further - we have all your EVM Handbooks in one place.

[Click here for EVM Implementation Handbooks](#)



Training

EVM training is available through scheduled classroom courses or online SATERN courses.

[Click here to read more about EVM training](#)



Back-up

- Insert NFS 1852.234-1, Notice of Earned Value Management System, in contract solicitations for:
 - Development or production, including flight and ground support projects and institutional projects (facility IT, investment, etc.) with a value exceeding \$20M***.
 - Acquisitions of any value designated as major by the project manager in accordance with OMB Circular A-11.
- Insert NFS 1852.234-2, Earned Value Management System, in solicitations and contracts with a value equal to or exceeding \$100M*** that include the provision at 1852.234-1. The clause with its Alternate I will be used when the contract value is less than ~~\$50M~~[\$100 million]***.
- *Note: SMD Mission Risk Class-D space flight projects and contracts with a LCC of up to \$150M (not including launch costs) have an approved deviation from the EVM requirements of NFS 1834.201 located at https://www.nasa.gov/sites/default/files/atoms/files/approved_smd_evms_deviation.pdf*

*** *Total estimated contract value inclusive of options*



Basic Contractual Requirements

- Earned Value Management System (EVMS) in compliance with guidelines in EIA-748** is required for development or production contracts that are equal to or greater than \$20M***.
- A formally validated and accepted EVMS is required for development and production work for contracts equal to or greater than \$100M***.
- EVM is discouraged for Firm-Fixed Price (FFP) contracts. The Contracting Officer (CO) will collaborate with the Project Manager (PM) to ensure the appropriate data can be obtained to fulfill program management needs and comply with NPR 7120.5.
- EVM may be imposed on contracts less than \$20M*** as a risk-based decision of the PM.
- Prime contractors will flow down the same EVM requirements to applicable subcontractors.
- *Note: SMD Mission Risk Class-D space flight projects and contracts with a LCC of up to \$150M (not including launch costs) have an approved deviation from the EVM requirements of NFS 1834.201 located at https://www.nasa.gov/sites/default/files/atoms/files/approved_smd_evms_deviation.pdf*

**Electronic Industries Alliance Standard 748, *Earned Value Management Systems*

*** Total estimated contract value inclusive of options



OMB Circular A-11 Preparation, Submission, and Execution of the Budget

- Appendix J – Principles of Budgeting for Capital Asset Acquisitions describes principles that should be satisfied before a proposal for the acquisition of capital assets can be included in the Administration's budget
 - ...cost, schedule, and performance goals are identified that can be measured using an *earned value management system*
 - ...cost, schedule, and performance goals are to be controlled and monitored by using an *earned value management system*
 - The justification of the investment...should also include: Cost, schedule, and performance goals for the investment (or the planning segment or useful asset being proposed) that can be measured throughout the acquisition process using a performance based management system (e.g., *earned value management*).
 - During the procurement phase, performance-based management systems (*earned value* or similar system) must be used to provide contractor and Government management visibility on the achievement of, or deviation from, goals until the asset is accepted and operational.



Capital Programming Guide – Supplement to OMB A-11 Planning, Budgeting, and Acquisition of Capital Assets

- Basic reference on principles and techniques for planning, budgeting, acquisition, and management of capital assets.
- Agencies should consult the *Guide* when preparing their capital plans and developing their budget requests from their capital plans.
- **I.5.5.4) Planning for Acquisition Management**
 - All major acquisitions with development effort will include the requirement for the contractor to use an Earned Value Management System (EVMS) that meets the guidelines in EIA Standard—748 to monitor contract performance.
- **II.2.4 Establishing an Earned Value Management System**
 - The solicitation for the contract, or in-house charter, must contain the FAR EVM provisions for pre-award or post award IBRs, as appropriate, and the EVM clause.



NASA Contract EVM Policy Source

- NASA EVM Contractual Requirements driven by Federal Acquisition Regulation (FAR) Subpart 34.2 – Earned Value Management System
- 34.201 Policy
 - An Earned Value Management System (EVMS) is required for major acquisitions for development, in accordance with OMB Circular A-11. The Government may also require an EVMS for other acquisitions, in accordance with agency procedures.
 - (b) If the offeror proposes to use a system that has not been determined to be in compliance with the Electronics Industries Alliance (EIA) Standard-748, Earned Value Management Systems, the offeror shall submit a comprehensive plan for compliance with these EVMS standards. Offerors shall not be eliminated from consideration for contract award because they do not have an EVMS that complies with these standards.
 - (c) As a minimum, contracting officers shall require contractors to submit EVMS monthly reports for those contracts for which an EVMS applies.
 - (d) EVMS requirements will be applied to subcontractors using the same rules as applied to the prime contractor.
 - (e) When an offeror is required to provide an EVMS plan as part of its proposal, the contracting officer will determine the adequacy of the proposed EVMS plan prior to contract award.



Source for NASA Contract EVM Requirements

- NASA EVM Contractual Requirements driven by Federal Acquisition Regulation (FAR) Subpart 34.2 – Earned Value Management System
 - 34.201 Policy: An EVMS is required for *major* acquisitions for development in accordance with OMB Circular A-11
 - 34.202 Integrated Baseline Reviews: IBRs are required when EVMS is required
 - 34.203 Solicitation Provision and Contract Clause: Agency’s must use provisions and clause substantially the same
 - 52.234-2: Notice of EVMS-Pre Award IBR
 - 52.234-3: Notice of EVMS-Post Award IBR
 - 52.234-4: EVMS Clause



Who is Responsible for Ensuring EVM Requirements are Included?

- The Project Manager and Project Management Team (*the Requestor*)
 - *Primary responsibility for ensuring EVM requirements are included*
 - *Coordinates with Center EVM FP for assistance*
 - *If SEB required, evaluates offeror's EVM approach and plan for compliance if not previously validated with assistance from EVM FP*
- The Contracting Officer (CO)
 - *Ensures requestor has addressed EVM requirements*
 - *Incorporates into RFP and contract*
 - *Requests DCMA assistance with EVMS plan evaluation through CO*
- Center EVM FP
 - *Assists with identifying appropriate EVM requirements and DRDs/tailoring*
 - *Assists SEB in evaluating offeror's EVMS and plan for compliance/validation*
 - *Coordinates with DCMA as required in evaluating EVMS compliance/validation plan*

