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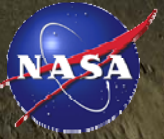
NASA Earned Value Management (EVM) Update **NDIA**

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Jerald Kerby
NASA EVM Program Executive

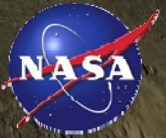
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Topics

- NASA Policy Update
 - NPR 7120,5
 - NFS
 - NFS Class deviation
- NASA EVM Capability Project
 - Scope/Objectives
 - Current Status
 - Products
- Questions



NPR 7120.5 Rewrite Update

NPR 7120.5 is NASA Project Management (PM) requirements for Space Flight Projects

- Planning begins during Formulation.
- EVM is applied in phases C and D to projects with an estimated life cycle cost >\$20 million and to Phase E modifications, enhancements, or upgrades with an estimated cost > \$20 million.
- **EVM system complies with the guidelines (currently principles are required) in ANSI/EIA-748 and is described in the Project Plan.**
- EVM system requirements are flowed down to applicable suppliers (in-house and contracts). (NFS 1834 is applied to contractors.)
- The project's Performance Measurement Baseline (PMB) is established in Phase B in preparation for KDP C approval and is assessed during the Integrated Baseline Review (IBR) process.
- Project EVM reporting begins no later than 60 days after the start of Phase C. Contract EVM reporting begins no later than 90 days after contract award.
- **UPDATE: This document will be summarized to around 40 pages with a supporting 'how to' handbook with the implementation details.**

NASA FAR Supplement Changes

- Removed the requirement for EVM on Firm Fixed Price (FFP) contracts.
 - Maintains consistency with DoD's EVM policy
 - EVM flow down for FFP work still has to be included in total project EVM approach
 - Progress information is provided to assess performance
 - **UPDATE: Recently signed and issued as final**



NFS Class Deviation

- Class Deviation to NFS 1816.405-274: Award fee evaluation factors are not directly tied to earned value management metrics
 - Emphasis on cost control should be balanced against other performance requirement objectives and shall not be directly tied to earned value metrics such as the cost performance index (CPI), schedule performance index (SPI), cost variance (CV), or schedule variance (SV).
- For existing contracts where EVM metrics are used to evaluate the cost control factor, contracting officers shall modify that contract's award fee plan before the beginning of the next award fee evaluation period to remove all EVM metrics tied directly to the cost control evaluation factor and should incorporate evaluation criteria for cost control consistent with the guidance in NFS 1816.405-274.
- <http://www.hq.nasa.gov/office/procurement/regs/pic10-17.html>



NASA EVM Capability



EVM Capability Project Scope/Objectives

Overall Objective is to develop an Agency EVM capability that complies with the guidelines in ANSI/EIA-748 and test through two pilots, refine and finalize EVM process and documentation based on test results.

In-Scope Effort

- Develop agency EVM processes and supporting documentation and guidance
- Clarify roles at program and project level (Storyboard/Swim Lanes)
- Establish data extraction process from SAP (accounting system)
- Design an agency repository for EVM data for both in-house and contract effort
- Conduct two pilots on a Constellation (CxP) and Science Mission Directorate (SMD) project
- Devise a strategy for EVM software tool(s) for future licensing and maintenance (Process will not be dependent upon tools)
- Identify challenges with business systems and submit recommendations to EVM Steering Committee
- Provide for the planning, managing, controlling and integration of "in-house" work at a project's primary and support Centers
- Integrate "in-house" with contractor data for comprehensive project performance assessment
- Develop and provide training for the EVM process

Not In-Scope Effort

- Acquisition of COTS software for pilots or projects
- Development of interfaces with business systems (e.g. SAP)
- Implementation of changes to business systems to accommodate EVM capability
- Implementation and maintenance of agency EVM data repository
- Roll-out decision/campaign for adoption of the EVM capability by agency



Current EVM Capability Project Status - Update

- Formulation Phase completed with Successful Peer Review in March 2010
- Entered implementation phase
 - 1st Pilot kicked-off at JSC week of April 5th, 2010 and initial gap analysis complete
 - EVA pilot cancelled in June 2010 because of changes/uncertainty within the CxP and the project office
 - Documented Results
 - 2nd Pilot - ICESat 2 project at GSFC
 - Started in Sept. at GSFC
 - Pilot completed end of May 2011
 - Documented Results
- Final Peer Review completed June 21-22, 2011 at LaRC resulting in no major findings
- Steering Committee meeting planned for Aug 15, 2011



Products Developed by EVM Capability

- ✓ EVM process flow diagrams (Storyboard)
- ✓ System Description (Detailed Process)
- ✓ Narratives (Summary Process)
- ✓ Project-Control Account Manager's (P-CAM) Reference Guide
 - Provides a quick reference for Technical Managers
- ✓ EVM Handbook
 - Overall Agency and general EVM guidance
- ✓ Pilots results
 - Lessons Learned/Issues/Workarounds/Recommendations
- ✓ EVM Acceptance/Surveillance Strategy
 - Acceptance Strategy
 - Surveillance Overview
- ✓ Software Acquisition Strategy
 - Hardware/Software access/acquisition
- ✓ Training Modules by Process Area
 - Modularized training for each process area



Questions?



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EVM Capability Life Cycle

Formulation

- Planning
- Requirements
- Design & development
- CxP/NEDI/Others Lessons Learned
- Ops Concept/Capability Storyboard
- Capability Description (Gap Analysis)
- Procedure development
- Training Requirements
- MOU
- Steering Committee
- Business Rules/PPBE Integration

Implementation

- CxP pilot (EVA)
- SMD pilot (ICESat2)
- Integration and test
- Initial operations
- Capability modifications and enhancements
- Handbook and procedure updates
- Agency-wide communications

Operations & Maintenance

- Consultation/ technical support
- Mentoring
- Data archival
- IBR support
- Training

Agency roll-out is not in scope



Accomplishments: Agency EVM Highlights – FY11

- Conducted three quarterly EVM Working Group Meetings since Dec., Feb., and June.
 - Next meeting scheduled for Sept. 2011.
 - Ongoing knowledge-sharing and lessons learned, supported 7120 compliance surveys, supported update of NASA FAR Supplement for EVM, ongoing support to 7120 rewrite effort and GAO audit requests, etc.
- Continued work on the EVM Capability
 - Peer Review Completed – June 22, 2011
 - Steering Committee briefing – Aug. 15, 2011



Next Steps and Continuous Improvement

- Provide Steering Committee with information to make decisions for Agency (Aug 15, 2011)
- Disposition Peer Review Recommendations and enter into Capability O&M
- Partner with the Office of Procurement to ensure that contract management controls are sufficient to ensure proper flow down of EVM requirements
- Develop standard Data Requirements Documents (DRDs) for consistent flow down of EVM reporting requirements
- Provide projects with an EVM analytical and reporting capability using the wInsight tool to support decision making
- Provide EVM analysis training to project personnel in both classroom and hands on formats
- Updated NASA EVM Website
- Training Metrics - ??