

National Aeronautics and Space Administration

NASA UPDATE

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<http://evm.nasa.gov>



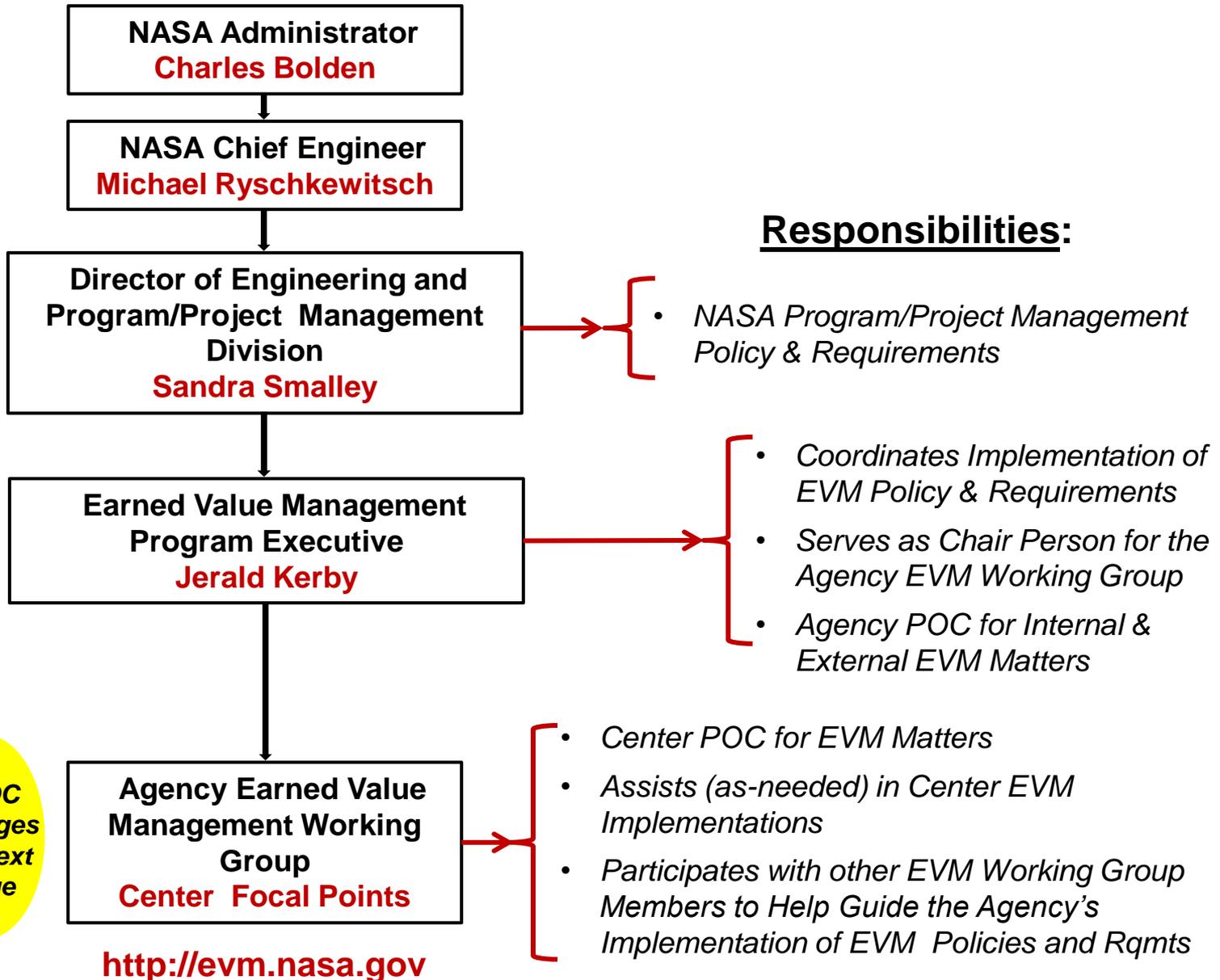


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NASA's EVM Leadership



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EVM Policy & Requirement Updates

1. NASA's Program/Project Management Requirements for Flight Projects, NPR 7120.5 version E has again been delayed with baselining now expected during second Qtr CY2012.

*(**Note:** Delay due to substantial restructuring of document to streamline the requirements and place guidance and contextual information into a companion handbook. An authorized interim policy document is currently in place to guide programs and projects.)*

The following EVM related changes are being incorporated:

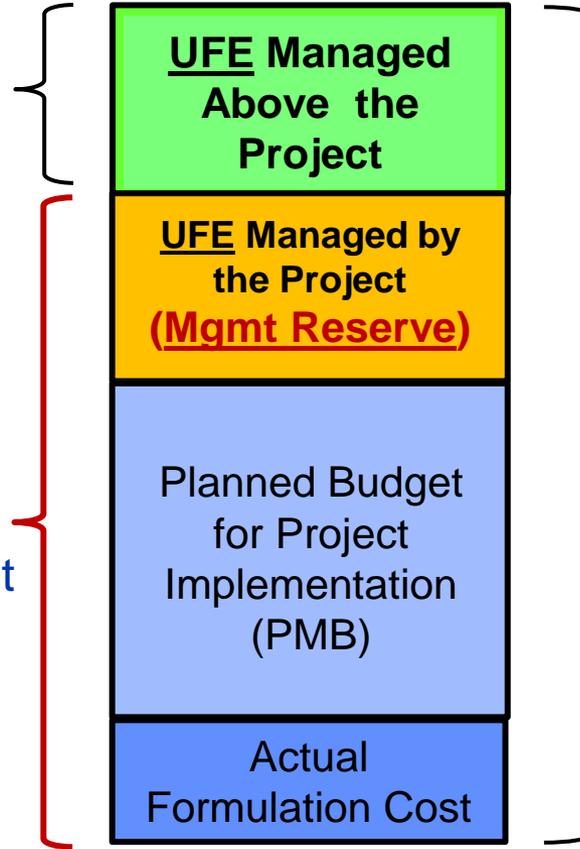
- Delegation of responsibility for proper NPR 7120.5 program/project requirement execution to Center Directors at each NASA location. (This includes the responsibility for waiver approval from project EVM implementations)
- EVM processes shall comply with the guidelines in ANSI/EIA-748 and they shall be described in the Project Plan (previously, only EVM principles were required)
- Introduction of "Unallocated Future Expense (UFE) terminology. (see next page)



EVM Policy & Requirement Updates

- Controlled by HQ's, Mission Directorate, or Program Ofc.
- May be Used for Unexpected Additional Costs (e.g. Overruns)

Management Agreement
Internal Baseline Agreement



**After KDP C Approval to Enter into Project Implementation*

Agency Baseline Commitment (ABC)
External Baseline Agreement
(OMB, Congress, GAO)

Unallocated Future Expenses (UFE): Costs that are expected to be incurred but cannot yet be allocated to a specific WBS sub-element of a program or project plan.



NFS Class Deviation

2. 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 Development - Status

Project Timeline:

- July 2009, NASA's Office of Chief Engineer authorized the start of development activities for an in-house EVM capability for the Agency that satisfies ANSI/EIA-748 Guidelines
- December 2009, NASA EVM Capability Development Project formally chartered to proceed by the Agency Program Management Council
- March 2010, Initial NASA EVM System Description with associated Storyboards and Narratives completed for first independent Peer Review
- April 2010, Completed first independent Peer Review



NASA EVM Capability Development - Status

- June 2010, Completed first EVM project pilot test
- April 2011, Completed second EVM project pilot test
- May 2011, Update to NASA EVM System Description and associated Storyboards, Narratives, EVM Handbook, and Training Modules completed for second independent Peer Review
- June 2010, Completed second independent Peer Review
- December 2011, Received provisional approval of NASA EVM Capability Process by the Agency Program Management Council - (Move out with implementation on selected projects)



Key Components of EVM Capability

Architecture

- ✓ Processes
- ✓ Documentation
- ✓ Tools
- ✓ Customer Support

Implementation

- ✓ Requirement (7120)
- ✓ Roll Out Support
- ✓ Surveillance Program

Education & Training

- ✓ Curriculum
- ✓ Training Materials
- ✓ Target Audiences

Everything is in place to begin implementation



NASA EVM Capability – Next Steps

Implement / refine EVM Capability through a phased approach:

For Contracts (next 1-2 yrs.) – Agency-wide

1. Clarify Agency requirements per NASA FAR Supplement (NFS) from contract award
2. Work with Ofc. Of Procurement to refine/reinforce Agency process for flowing down EVM requirements to development contracts that exceed \$20M threshold
 - *Implement a contracts checklist to include EVM requirements*
 - *Utilize standard EVM DRDs*
3. House EVM data in centralized database for roll-up reporting capability, cost estimating, software tools, etc.

Note: Improving and consistently flowing down the contractual EVM requirements will improve the quality of EVM data across the Agency.



NASA EVM Capability – Next Steps

Implement / refine EVM Capability through a phased approach:

For In-house Projects (next 1-5 yrs.) – Selected projects

1. Enforce NASA policy to comply with ANSI/EIA-748 guidelines
 - Point to EVM Capability process in NPR as agency standard
 - Initial Rollout to SLS (MSFC) and ICESat II (GSFC)
 - Goal is to eventually rollout to a project at each Center
2. Conduct surveys of Centers/projects to determine the support/tools needed for agency implementation
3. Provide EVM implementation, training, surveillance, and tool support as-needed
4. Continuous improvement - modify process/documentation as-needed
5. Centers to develop or acquire needed skills to ensure continued effective execution of EVM processes and maintain compliance with the overarching requirements



Top 5 Lessons Learned

1. Projects have to consider EVM Implementation from Day 1 of project
 - *Each time a charge code is created it effectively changes the technical WBS for the life of the project*
 - *Where will the work be controlled and performance taken? EVM construct must be considered for control accounts and work packages*
2. Support Contractor costs will continue to be a constraint unless proper cost reporting requirements are flowed down to contracts
 - *Support Contracts are often owned by other organizations outside of the projects with no EVM requirements*
3. Work Authorization agreements that document an agreement of scope, schedule and budget by both sponsor and performing orgs. are fundamental to the implementation of EVM
4. Project Planning & Control skills must be strengthened to better support EVM and project management
5. Senior Level Management support is needed across the agency with the change management process



Observations On EVMS Implementations

- Validation Reciprocity Needed



Questions?