



Importance of the Integrated Baseline Review (IBR)

***Thomas A. Fitzgerald, SES, USAF
Director, Program Management and Integration
Space and Missile Systems Center
Los Angeles AFB, CA***



Background (1 of 2)

- **In last two decades scores of studies trying to reform and/or “fix” acquisition**
 - **Space: Had more than our fair share, especially after string of 1990s launch failures, and due to our spotted record of not delivering space systems on cost and schedule and with the promised capability**
 - **GAO reports, Rumsfeld Space Commission, Tom Young Defense Science Board ,etc...**
 - **Since 2004, about 30 Independent Program Assessments accomplished on every space program**
 - **While we have made significant strides, but our own self assessment has us convinced we can still do better!**



Background (2 of 2)

- **Several common themes:**
 - **Spend time making sure you are building, contracting for, the right system**
 - **i.e. Alternative of Analysis**
 - **Architectural trades ,etc.**
 - **Get the user requirements right**
 - **As you solicit for, select and manage contractors, development, test and produce systems make sure you build the systems right!**
 - **Right data items, CDRLS, Program oversight mechanisms, RFPs and contract**
 - **Sound and judicious application of systems engineering, mission assurance etc**
 - **Bake in mission assurance, don't rely on only 11th hour checks**
 - **Preparation for proceeding after contract award**
 - **Devote appropriate resources to collaboratively developing sound baselines that will form the foundation for EVMS reporting and tracking contract progress: customer and supplier PMs, subcontractor participation, PMs, functionals, engineering, etc.**



SMC Findings After Doing 30 IPAs Related To Baselines

- **Poor government cost baselines**
 - Acquisition contract awarded based on less than government cost estimate
 - Baseline did not include all the requirements
- **Poor schedule baselines**
 - Contract based on a schedule shorter than government estimate
 - “Meet me at the pass” planning, i.e.; several efforts must be completed simultaneously adding risk
 - Not using technology on/off ramps effectively
- **Poor government SPO technical baseline (at KDP B)**
 - Missing or poor TRD, WBS and/or SOW, insufficient CAIV analysis , trades or Cost Analysis Requirements Document (CARD)
 - Cutting corners during preparation or the IBR process “to save time” and get on contract and to “actually doing work”
 - Using success-oriented plans (that over promise, but will be under performed
- **Poor contractor processes and poor implementation of those processes**
 - IMS, IMP, Earned Value system, test planning, scheduling, risk identification, opportunity management, building work packages, cost account management



Led SMC Focus To 25 Areas of Functional Capabilities we wanted to Improve On

- **Program, Financial and Acquisition Management**
 - Program formulation
 - Preparation, solicitation, evaluation, award and management of contracts
 - Establishing and managing program baselines
 - Fielding and transitioning systems to the user/operators
 - Managing and sustaining fielded systems
 - Analyzing and estimating costs
- **Development Planning for future systems**
 - Develop system and technical architectures
 - Develop and evaluate systems concepts
 - Demonstrate and validate system concepts
 - Plan which technologies to invest in
- **Engineering**
 - Develop system and technology requirements
 - Establish and manage the engineering baselines
 - Verify and validate the system baseline
 - Test and evaluate systems
- **Assess and support**
 - Monitor and assess program execution
 - Report program status
 - Manage mission assurance
 - Manage financial performance
 - Manage Investment portfolio
 - Develop and manage the workforce
 - Manage knowledge
 - Provide installation services and support
 - Manage Center operations and governance processes
 - Promote industrial base and supplier health
 - Engage with community and external stakeholders



Recognition That...

- **Center doing pretty good job in pre-award activities:**
 - Requirements identification with users
 - Development of ASPs
 - Development of RFPs
 - Running Source Selection with key discriminators being identified
 - Getting right Specs and Stds and data items put into RFP and on contract
 - Selecting “best value” contractor
- **But after contract award very little attention to base lining the program for success!**
- **Dilemma of not having enough talented “jump start” type folks for all our programs addressed by the resurrection of old AFSC group called Program Management Assistance Group (PMAG)**
 - New twist: not as assessment group, but assistance group
 - To supplement program office and contractor team to establish the best, most accurate, most realistic cost, schedule and technical baselines possible



PMAG Status, Findings and Lessons Learned

- **Existed for about 2years**
- **Reviews of every major new and some old activity at SMC and other Centers**
 - **SBIRS, SBSS, GPS III, ASC XX**



Primary PMAG IBR Findings

- **Failure to jointly set the rules, assumptions, and expectations**
- **Inadequate IBR training in Control Acct Manager Notebook and Integrated Baseline analyses**
- **Inadequate schedule planning and execution management**
- **Lack of attention to Management Control Processes**
- **Limited visibility into the Program Schedule Baseline due to excessive %LOE**



PMAG IBR Lessons Learned

- **Integrated team needs clarity of the IBR Expectations**
 - **IBR execution must be consistent with the Program Manager(s) expectation and program dynamics**
- **Requires Disciplined Execution**
 - **IBR focus is on integrated program risks identification, documentation, resolution, and tracking**
- **Must be carried out in phases with specific entrance and exit criteria for each phase**
 - **Provide adequate visibility**