Earned Value Management

Future Directions in DoD

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**Future Directions in DoD**

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Prescribed by ANSI Std Z39.18
Earned Value Management

- The facts of (DoD procurement) life
- EVM beginnings
  - DoD contracting requirement
- EVM status
  - Government/Industry best practice
- EVM future
  - DoD’s role
1961 Pentagon Spending:
• 40% of Federal Budget
• 8% of GDP

1997 Pentagon Spending:
• 15% of Federal Budget
• 3% of GDP

Military Procurement Budget:
• Down 67% since 1985 peak
DoD Responses

- Acquisition Reform
- “The Last Supper”
  - 1993 SecDef dinner
  - Fewer, larger companies
- Improved Defense Project Management
  - Better integrate cost, schedule, technical perf.
  - Earned Value Management
Lockheed
GD Mil. Jets
Sanders Assoc.
Martin Marietta
GD Rockets
GE Aerospace
Loral
Unisys Defense
IBM Fed. Systems
LTV Missiles
Ford Aerospace
Goodyear Aerospace
Northrop
LTV Aircraft
Grumman
Westinghouse Def
Boeing
Rockwell Def & Space
McDonnell Douglas
Raytheon
E-Systems
Texas Instruments Def
Hughes Aircraft
Magnavox Def
CAE Link
GD Missiles

“And then there were 3”

Lockheed

Martin Marietta

Loral

Northrop Grumman

Boeing

Raytheon

Hughes Aircraft
Industrial Base Concerns

- Market forces
  - Monopsony
  - Monopoly
  - Price gouging
- Vertical integration
- Innovation
- Quality

“The late 1990s and the early 21st Century will mark a difficult and expensive procurement era.”
Earned Value Management: Origins

Industry Best Practices

1967: DoD Instruction 7000.2
35 Cost/Schedule Control Systems Criteria (C/SCSC)

Criterion-based Management
- Brief statements of attributes
- Not “how-to manage”
- Not a system
- Minimum acceptable standard

Government Requirements

1997: DoD Regulation 5000.2-R
32 Earned Value Management Systems (EVMS) Criteria
Earned Value Management: Implementation Problems

- “Financial Management”
- Audit-like reviews
- Government-required reporting
- Too many “surprises”
  - A-12 (Navy)
  - AAWS-M (Army)
  - C-17 (Air Force)
- Challenge: keep good principles, stop bad practices
Earned Value Management: DoD Improvements

- Redefined Earned Value Ownership
  - From finance to project management
  - From reporting to management
  - From government to industry

- Better management tools

- Integrated Baseline Reviews
  - Planning process
  - Better technical/risk management
DoD Earned Value Policy

- Examined & Reaffirmed
  1984 - Arthur D. Little Study
  1991 - DoD Instruction 5000.2
  1993 - Inspector General Report
  1994 - Coopers & Lybrand Study
  1996 - DoD Regulation 5000.2-R
  1997 - General Accounting Office Report

Australia, Canada, New Zealand, Sweden, United Kingdom
Integrated Product Teams: The Key to Success

Management systems don’t manage - people do! EVM is used to identify, communicate and MANAGE the resource effect of technical and schedule problems.
The Really Nice Thing About Not Planning

Failure comes as a complete surprise and is not preceded by long periods of worry and depression!*

*Micro Planning International
Integrated Baseline Reviews

- Mutual understanding of plan for
  - Scope
  - Schedule
  - Resources
- Emphasis on risk
- Planning process vs. review
- PM leads; EVM staff supports
  - Management system reviews effectively eliminated

IBR Training
• Schedules
Putting it all together:

IPT + IBR + EVM = IPM

- Involve earned value specialists and cost estimators on program IPTs
- Tailor reports - limit levels and analysis
- Do Integrated Baseline Reviews
- Encourage active, forward-looking management

“IPTs must control all the project, technical and functional elements needed for the product or process.”
Earned Value Management: Gov’t/Industry Best Practice

- Dec. 1996 USD(A&T) accepted 32 EVMS guidelines as replacement for C/SCSC
- Reserved right for government reviews
  - As determined by project manager
  - “Self-certification” not in public interest
- Encourages evolution to “true” standard
  - Industry/International (ISO)
  - For now, DoD and industry EVMS are equal
Earned Value Management: The Future

- Office of Management & Budget Guidance
  - 1996 - Circular A-11 Part 3
  - 1997 - Principles of Budgeting for Capital Asset Acquisitions (FY98 Budget)
  - 1997 - Capital Programming Guide (Supplement to A-11 Part 3)
- Government-wide management principles

American Project Management Forum
Earned Value Management: The Future

- A-11 Part 3 extends DoD-pioneered performance measurement to all agencies
- It effectively requires Earned Value Management for all contractor performance-based management systems
- Agency budget approvals will depend on performance measured by EVM

EVM: A 30-year old idea is today’s best practice!
Earned Value Management: The DoD’s Role

- Integrated Program Management Initiative
- Monitor industry standards
- Participate in standards-setting bodies
- Continue inter-agency cooperation
- Improve project management education
  - Within government
  - Cooperate with academia and professions
- Improve in-house management