Earned Value Management in Defence

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History

1967
CSCSC
1989
There are two major objectives of an earned value system:

to encourage contractors to use effective internal cost and schedule management control systems; and

to permit the customer to be able to rely on timely data produced by those systems for determining product-oriented contract status.”

Quote from 1999 United States Office of Secretary of Defense Earned Value Management Web Site and DEF(AUST)5657.

• The customer (Commonwealth) has insight into the contractor’s way of doing business. In other words, how well they are performing against the contract cost and schedule baseline.

Benefits to the Customer

• Confidence in the Contractor’s internal management
• Objective contract status information
• Cost and schedule impact of known problems
• Early warning for timely decision making
• Capability to trace problems to source
• Quantitative measurement of Schedule Variance in $
• Measurement against a contract oriented baseline
• Ability to determine the justification for funding
• Visibility at the lowest level of management
  – Work Packages and Planning Packages
Benefits to the Contractor

- Competitive advantage for new proposals
- Internal management desire - increase profit
- Known cost of doing business
- Satisfies customer direction
- Valuable risk mitigation tool

Requirements

- Industry Standard Aust Std 4817 + Defence Supplement
- Defence Standards 3 DEF(AUST) standards specify EVM reqs
- CSCSC CSSR

Application

- Assess risk
- Nominaly > $20m
- Assess known & unknown
* No Validations
* Risk-based review requirements
* "Meets contractual reqs"

Implementation

- Lengthy Validation process
- Tailored Assurance
- "Meets contractual reqs"

EVM Directorate Disbanded in 2005

- $ Thresholds:
  - $200m all contracts
  - $60m development
  - $20m CSSR

"92-04" to ">2004"
2004-18: Mandated in DMO/CASG policy for contracts over $20mil, however waivers could be granted if assessed as low risk:

• Off-the-shelf or developmental?
• Technical risk?
• Cost and Schedule risk?
• Rapid acquisition?
• Existing management systems?

Application was inconsistent

Other Users
• State Governments
• Health Industry
• Mining Industry
• Banking Industry
• Transport Industry
• Manufacturing Industry
• Civil Engineering

Revisiting Benefits of an Earned Value Management System

1. Cost & Schedule impact of known problems
2. Capability to trace problems to source
3. Focuses management attention on most significant problems, facilitating management by exception
Need to compare SV with the statused schedule to know what’s going on.

Behind plan - but found a way to recover

Behind plan – but not on the critical path
Contract Performance Measurement

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**Analysis Trend Information**

- **Current Performance**
  - Behind Schedule & Over Cost
  - Basis of Estimate
  - Functional Volatility
  - Resource Usage
  - Process Adherence
  - Basis of Estimate
  - Resource Usage

- **Future Performance**
  - Flexibility
  - Recovery
  - Duration

**UNIT OF MEASUREMENT**

- CP
- EAC
- BAC
- PMB
Planning an Integrated Baseline

1. DEFINE THE WORK AND ORGANIZE TEAMS

2. SCHEDULE THE WORK

3. ALLOCATE BUDGETS

Contractor EVM System Data vs Commonwealth Data
Schedule: The composition of the SV has changed, but not the magnitude.

Cost: CASG should not generate large Cost Variances on fixed price contracts.

CFO’s Focus: Planned Spend vs Actual Spend.
Setting the Direction – New requirements

Policy Directives:

1. The use of the CASG Earned Value Management Risk Questions and Risk Matrix is mandatory for determining if a contract has an Earned Value Management requirement.
2. Solicitation documentation with respect to Earned Value Management is to be derived from ASDEFCON templates and tailored to individual contract requirements.
4. The Project Manager is responsible for conducting assurance on the contractor’s Earned Value Management System to ensure it is implemented in accordance with contractual requirements.
5. The outputs of the contractor’s Earned Value Management System system are to be used as inputs into the project risks and issues management process.

Tailored EVM Application to Contracts

Implementation of EVM now tiered with guiding questions on contract risk and significance.

**Low Risk.** Contracts will not require contractors to implement a formal AS4817-2006 compliant EVM system.

**Medium Risk.** Contracts will require contractors to implement an EVM system. However, the implementation of EVM should be tailored to reflect the moderate level of risk.

**High Risk.** Contracts will require contractors to implement an EVM system. Reporting should be at the contractor’s Control Account level with the ability to request detail at the Work Package level whenever drill down is required.
Contractual Context

CASG EVM Policy and Guidance Suite

- **Requirements**
  - ASDEFCON Contract Templates, AS4817 + Defence Supplement

- **Policy and Guidance**
  - Integrated Baseline Review Handbook
  - Earned Value System Review Handbook
  - Earned Value Data Analysis Guide

- **Training Courses**
  - Introductory (2 day)
  - System Review Course (on demand)
• Greater understanding of the EVM discipline
• More informed decisions on Contract application
• Participation in Integrated Baseline Reviews, EVM System Reviews and use of outputs in decision making will lead to more EVM literate workforce
• An EVM literate organisation can then make informed decisions on wider application of the discipline:
  – Possible use of EVM internally where project office is PSI
  – Integration on projects with several contracts

The End

Any Questions?