Acquisition Reform Lessons Learned

CQSDI

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March 15, 2010
NASA Acquisition Reform

• History

• Contractor Mergers & Acquisitions

• Voluntary Consensus Standards

• NASA Failures

• Troubled Practices That We Must Not Repeat

• Lesson’s Learned & Plan Forward
NASA Acquisition Reform History

• Faster, Better, Cheaper started at NASA in 1992 timeframe.
  – Concept of being more competitive is good.
  – No guidance given on achieving “faster, better, cheaper”

• Space Station Program was way over budget and under threat of being cancelled.

• NASA Program mind-set was to build the “Rolls Royce” version.
NASA Acquisition Reform History

• Federal Acquisition Streamlining Act (FASA) introduced in 1994.
  – Overhauled federal procurement law in an effort to reform acquisition processes and reduce project costs.

• Pendulum swung
  – Lots of NASA oversight to little NASA oversight
    • “but the contractors don’t want to fail”
  – Complicated costly projects to simpler lower-cost projects.
Contractor Mergers & Acquisitions

• Contractor mergers and acquisitions (1980’s to Present) (more detail in breakout session)
  – Over 100 Companies combined into Six
    • Lockheed Martin
    • Northrup
    • General Dynamics
    • Boeing
    • Raytheon
    • Alliant Techsystems (ATK)
  – Creates “Must Win / Do-Or-Die” environment to win contacts.
Voluntary Consensus Standards

• OMB Circular A-119, dated February 19, 1998, mandates government use of Voluntary Consensus Standards (VCSs) unless “inconsistent with law or otherwise impractical”
  – “The use of such standards, whenever practicable and appropriate, is intended to achieve the following goals:
    a) Eliminate the cost to the Government of developing its own standards and decrease the cost of goods procured and the burden of complying with agency regulation
    b) Provide incentives and opportunities to establish standards that serve national needs
    c) Encourage long-term growth for U.S. enterprises and promote efficiency and economic competition through harmonization of standards
    d) Further the policy of reliance upon the private sector to supply Government needs for goods and services”
Tin Whiskers

Cute Whiskers

“Not So” Cute Whiskers

15-March-2010
Acquisition Reform History – NASA Failures

• NASA experienced several failures as a result of “faster, better, cheaper” implementation including:
  – The Orbiting Carbon Observatory (OCO) Satellite
  – Demonstration for Autonomous Rendezvous Technology (DART) Spacecraft
  – NASA Helios
  – The Hubble Space Telescope
  – Genesis
  – Space-Based Infrared System (SBIRS)
Acquisition Reform History – NASA Failures

• NASA experienced failures continued:
  – The Mars Polar Lander (MPL)
  – Deep Space 2
  – The Mars Climate Orbiter (MCO)
  – NOAA-19
  – Comet Nucleus Tour (CONTOUR)
  – Lewis Spacecraft
  – Solar Heliospheric Observatory Spacecraft (SOHO)
  – Wide-Field Infrared Explorer (WIRE) Spacecraft

• NASA experienced failures discussed in more detail in breakout session.
Troubled Practices That We Must Not Repeat

• “Trust Me” is based on the presumption that the Contractor knows how to do their job and wants to succeed.

• Reducing Government oversight based on presumption that Contractor’s processes, measurement devices, and practices are accurate and have a proven success track record.

• Overuse of analysis in lieu of test.
Troubled Practices That We Must Not Repeat

• Misuse of Qualification by similarity.

• Ineffective Quality Metrics

• No focused Continuous Improvement

• Ineffective separate Corrective Action Systems

• Cost and Schedule induced risk used to justify reduction in Quality Assurance.
Troubled Practices That We Must Not Repeat

• Breakdown of internal controls/discipline.

• Poor oversight of sub-contractors (2nd, 3rd, 4th-tier suppliers).

• Releasing contracts before requirements are developed.

History has shown that we don’t seem to learn from our mistakes.
Lesson’s Learned & Plan Forward

• Lesson’s Learned & Plan Forward (*discussed in breakout session*)
  
  – Dedicated Effort to Change
  
  – Contract Management
  
  – Organization and Style
  
  – Ready, Aim, Fire (*not Fire, Aim, Ready*)
  
  – Work Practices
Breakout Session

We will discuss each of the following in more detail:

• History
• Contractor Mergers & Acquisitions
• NASA Failures
• Troubled Practices That We Must Not Repeat
• Lesson’s Learned & Plan Forward