Dollar Value and Risk Levels

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Outline

• Current risk focus in DOD acquisition
• Discrete programmatic risk categories
  – Technical
  – System integration
  – Design
  – Production
  – Business
• Conclusions and recommendations
Current risk focus in DOD acquisition

• Manage by dollar value
  – Program acquisition categories stratified by $
  – The higher the $, the higher the decision authority
  – Some low $ value programs could benefit from higher level scrutiny (e.g. ASDS)
  – Some high $ value programs are low risk (e.g. DDG 51 Class restart)

• Causes versus consequences
  – Are cost, schedule and performance risks that can be managed or consequences of discrete risks?
Discrete programmatic risk categories

• Technical
  – Well understood in acquisition community
  – Technology Readiness Levels
    • Good proxy measure for technical risk
    • Well defined process for technology readiness assessment
  – Technical risk handled well in ship acquisition programs (e.g. VIRGINIA Class)
Discrete programmatic risk categories

• System Integration
  – Was a big problem with submarine combat systems (e.g. COLLINS, SUBACS, BSY 1 & 2)
  – Extensively treated after MS B, during engineering and manufacturing development (EMD) phase
  – Early assessment could improve outcomes
  – Sauser proposal for Integration Readiness Level scale
    • Nine levels, compatible with TRLs
Discrete programmatic risk categories

• Design
  – Will design process generate an effective, easy-to-produce weapon system?
  – Design process problems can lead to major cost and schedule overruns (e.g. ASTUTE & LPD 17)
  – Decision makers need to better understand the risks new design processes and tools present
  – Program managers should:
    • Justify new processes and tools
    • Develop appropriate risk mitigation plan (e.g. VA early ship section build to prove/debug new processes & tools)
Discrete programmatic risk categories

• Production
  – Production readiness review before production contract award
  – Earlier program decisions may lock program into production contractor, ready or not
  – Expected savings from new production facility for LHA 1 and DD 963 Classes led to problematic contracts
  – MDA’s Engineering & Manufacturing Readiness Levels promising tool for early assessment
Discrete programmatic risk categories

• Business
  – LCS represented major changes to Navy ship acquisition model
    • Construction in commercially competitive yards
    • Rapid 24 month build cycle
    • Simultaneous design and construction
    • Use of ABS Naval Vessel Rules
  – Require PMs proposing new &/or radical business models to:
    • Justify new approach
    • Incorporate exit strategies in Acquisition Strategy
Conclusions and recommendations

• Better & earlier attention to discrete causes of risk can lead to better cost, schedule and performance consequences

• Focus oversight on risk level, not $ value
  – Assess each discrete risk at each milestone
  – Require PMs to:
    • Justify new or radical approaches to design, production or business processes
    • Develop risk mitigation plans & exit strategies
  – Lower the Milestone Decision Authority level for programs assessed with low risk