



Acquisition Research Program: Creating Synergy for Informed Change

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

