



Mission Engineering: Research Challenges and Priorities

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Mission Engineering



Apply systems engineering processes and knowledge to the design of missions

Mission engineering almost always results in an acknowledged SoS

- ◆ SoS has requirements, management, and resources
- ◆ Constituent systems are NOT subordinate to the SoS

Mission engineering activities span acquisition, engineering integration, and operation

Research Challenges



- Blending of engineering and operational knowledge
- Studies of programs doing mission engineering to identify best practices, critical success factors, etc.
- Interoperability – information flows, coordination, and alignment
- Development of engineering models and tools to support mission engineering
- Tradeoff analysis, understanding resilience, understanding other –ilities
- Test and evaluation, uncovering emergence