

Systems Engineering Disciplines

- Risk Management
- Training Curriculum
- > **Professional Reference**
- Requirements Management
- Web Tools

Professional Reference: Systems Engineering Primer and Handbook

bd Systems' Space and Missile Systems Center (SMC) Systems Engineering Handbook guides engineers through fundamental systems engineering concepts, processes, and techniques as they apply to space, launch, and ground control. Intended audiences include project officers, junior systems engineers, engineers who perform Systems Engineering functions in other disciplines, and experienced engineers who seek a suitable systems engineering reference.

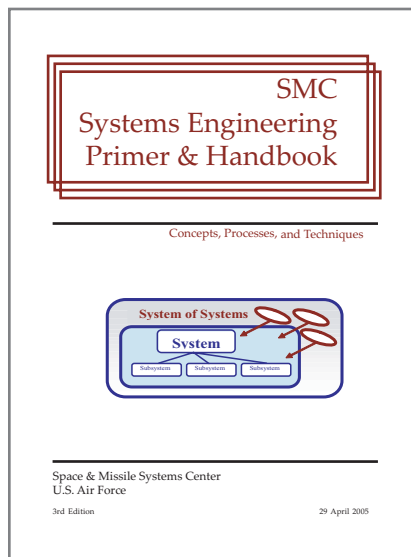
Selected Topics

The Systems Engineering Process: Requirements analysis, functional analysis and allocation, synthesis, and system analysis and control.

Risk Management: Risk Management is an important and often critical activity for DoD systems acquisition. Risk management includes planning for risk, assessing (identifying and analyzing) risk areas, developing and implementing risk-handling strategies, monitoring risks to determine how risks have changed, and documenting the overall risk management program.

Spiral Development: The Spiral Essentials model is characterized by six invariant properties or attributes. Any successful implementation of the spiral model process must incorporate these elements.

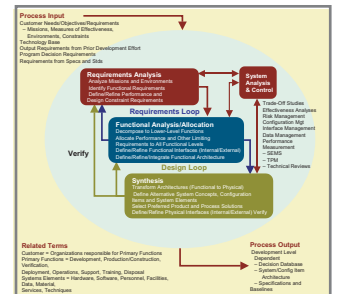
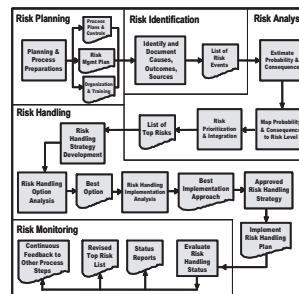
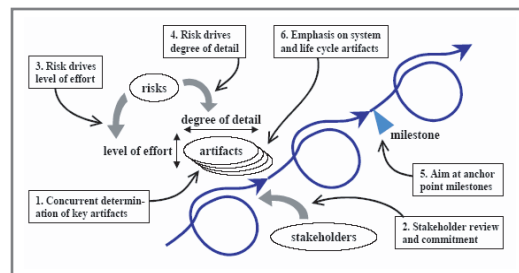
The handbook is supplemented with templates and examples to perform focused systems engineering tasks.



Clockwise from above: The SMC Systems Engineering Primer & Handbook, Contents, Spiral Development, the Systems Engineering Process, and the Technical Risk Management Process.

Handbook Contents

- Chapter 1:** Introduction to system-of-systems and family-of-systems.
- Chapter 2:** Systems engineering concepts and terms; a more detailed explanation of the systems engineering process.
- Chapter 3:** End-to-end space system lifecycles.
- Chapter 4:** Systems engineering management.
- Chapter 5:** Common systems engineering tools and methods.
- Chapter 6:** Major specialty engineering disciplines.
- Chapter 7:** Validation and verification.



About bd Systems

bd Systems is a woman-owned small business that provides engineering and information technology services for government and private industry. Based in Torrance, California, bd Systems has over 20 operating locations nationwide.

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