



Systems Engineering Plan Preparation Guide Update

Chet Bracuto
OSD Systems and Software Engineering/Enterprise Development
24 October 2007
NDIA SE Conference



An Updated Systems Engineering Plan Preparation Guide (Version 2.0) Has Been Released on the New SSE Website

<http://www.acq.osd.mil/sse/index.html>

Preface + 3 Distinct Sections-94 Pages



SEP Prep Guide

History

- Version 1.02 released in February 2006
(31 pages)
 - Describe application of SE in the various life cycle phases
 - Provide information to specific questions for each of the CR/TD, SDD/Production, and Sustainment phases



SEP Prep Guide

Reasons for Update

- SEP quality was inconsistent
- ‘Lessons Learned’ from PSRs
- Feedback from SEP Reviews



SEP Prep Guide

Update Process

- ED released a draft SEP Prep Guide on 27 April for review by the SE Forum members and other SE personnel.
 - *600 comments received and adjudicated*
- ED released a second draft on 25 July
 - *close to 100 additional comments received and adjudicated*
- Released Version 2.0 of the SEP Prep Guide on 18 October 07 (Preface + 3 distinct sections-94 pages)



SEP Prep Guide

Goals

- Provide clear and unambiguous guidance on SEP preparation with lessons learned
- Assist the SEP Preparation Team by tailoring sections for Acquisition Milestones A, B and C
- Prompt the SEP Preparation Team to consider key planning factors in each focus area

It's About Technical Planning...Not the Document



SEP Prep Guide

Update Details

- New guide includes sections by program phase:
 - *Milestone A/Technology Development*
 - *Milestone B/System Development & Demonstration*
 - *Milestone C/ Production & Deployment and Operations & Support*
- Each section is based on technical planning focus areas for that phase
 - *Program Requirements*
 - *Technical Staffing*
 - *Technical Baseline Management*
 - *Technical Review Planning*
 - *Integration with Overall Management of the Program*



SEP Prep Guide

Update Details

- Program Requirements
 - Describe:
 - *Desired capabilities and traceability to requirements*
 - *Statutory and regulatory*
 - *Specified and derived*
 - *Certification*
 - *Design considerations*



SEP Prep Guide

Update Details

- Technical Staffing
 - Describe:
 - *Lead Systems Engineer/Functional roles*
 - *IPT Organization/Structure*
 - *IPT Staffing*
 - *IPT Coordination*
 - *Integration with the Contractor and External Organizations*



SEP Prep Guide

Update Details

- Technical Baseline Management

- Describe:

- *Who is responsible for technical baseline management*
 - *Approach to defining, approving and maintaining the baseline*
 - *Allocation and verification of program requirements*
 - *Alignment between the specification tree and the WBS*
 - *Assessment of technical maturity*



SEP Prep Guide

Update Details

- Technical Review Planning
 - Describe:
 - *Event-driven technical reviews*
 - *Technical review management*
 - *Chairing of technical reviews*
 - *Stakeholder participation in technical reviews*
 - *Peer participation in technical reviews*



SEP Prep Guide

Update Details

- Integration with Overall Management of the Program
 - Describe:
 - *Linkage to other program management plans (Acquisition Strategy, IMP, IMS, EVM, Risk, etc)*
 - *PM's approach to technical reviews*
 - *Risk management approach*
 - *Integration of T&E*
 - *Integration with Sustainment*
 - *Integration of SE considerations into the contract*



The Way Ahead

Communicate/Implement

- Communicate the new SEP Prep guidance to Government and Industry
- Implement:
 - Initial SEPs submitted for MDA approval shall be IAW SEP Prep Guide Version 2.0 on 1 Jan 08
 - Updated SEPs submitted for MDA approval shall be IAW SEP Prep Guide Version 2.0 on 1 June 08



The Way Ahead

Update the DAG

Incorporate new SE Policy in DoD 5000.2

- Enclosure 12. Includes new policy on CM, DM, and ESOH and previously approved SE and related policies.
- Enclosure 3. Table E3.T2. SEP is mandated at milestones A, B, and C.
- § 3.5.5. SE “shall be considered” during CR and TD.
- § 3.7.7. “System Design [phase of SDD] shall include the establishment of the functional, allocated, and product baselines for all configuration items.”
- § 3.7.8. Proceeding beyond the CDR. “The system-level CDR provides an opportunity for mid-phase assessment of design maturity as evidenced by measures such as successful completion of subsystem CDR; the percentage of hardware and software product build-to specifications and drawings completed and under configuration control.”
- § 3.7.9. System Demonstration. “The program shall enter System Demonstration when the program has successfully completed the system-level CDR and established an initial product baseline.”
- § 3.10.5. Program Support Reviews (PSRs) mandated for all MDAPs and “. . . shall be conducted prior to each milestone event, before approval of the SDD acquisition strategy, and at other times as directed by the USD(AT&L).”



The Way Ahead

SE Plan Unification



SEP

SEMP

Unified SE Plan