Streamlining Acquisition Documents

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Office of the Deputy Assistant Secretary of Defense for Systems Engineering

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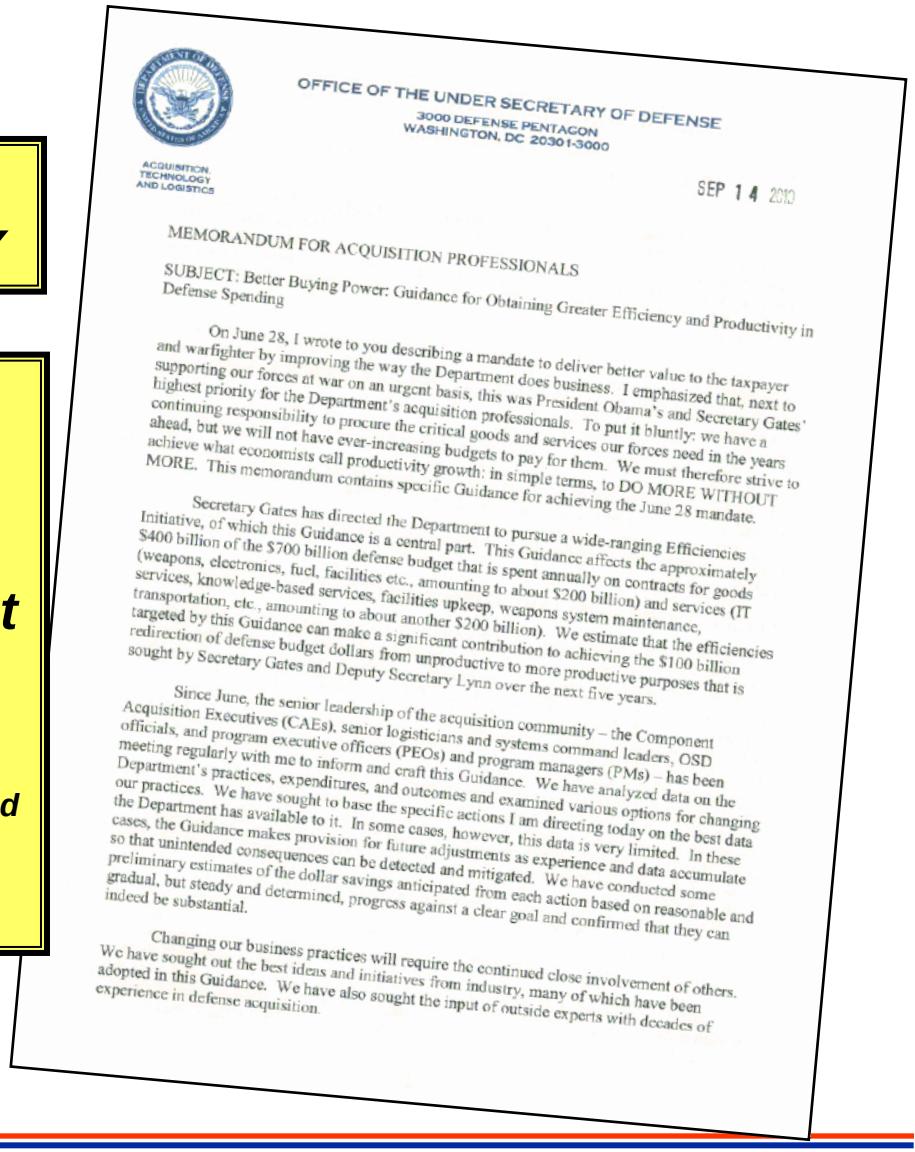
San Diego, CA | October 26, 2011

Acquisition Documentation Streamlining: USD(AT&L) Direction of September 14, 2010

REDUCE NON-PRODUCTIVE PROCESSES AND BUREAUCRACY

- ***Review DAB documentation requirements to eliminate non-relevant content***
- ***Reduce by half, the volume and cost of internal and congressional reports***
  - ***… conduct a bottom-up review of all internally-generated reporting requirements .. by 1 March 2011*…*** **[required by DoD Instruction 5000.02] (Direction to Dir. ARA)**



OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION, TECHNOLOGY AND LOGISTICS

SEP 14 2010

MEMORANDUM FOR ACQUISITION PROFESSIONALS

SUBJECT: Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending

On June 28, I wrote to you describing a mandate to deliver better value to the taxpayer and warfighter by improving the way the Department does business. I emphasized that, next to supporting our forces at war on an urgent basis, this was President Obama's and Secretary Gates' highest priority for the Department's acquisition professionals. To put it bluntly: we have a continuing responsibility to procure the critical goods and services our forces need in the years ahead, but we will not have ever-increasing budgets to pay for them. We must therefore strive to achieve what economists call productivity growth: in simple terms, to DO MORE WITHOUT MORE. This memorandum contains specific Guidance for achieving the June 28 mandate.

Secretary Gates has directed the Department to pursue a wide-ranging Efficiencies Initiative, of which this Guidance is a central part. This Guidance affects the approximately $400 billion of the $700 billion defense budget that is spent annually on contracts for goods (weapons, electronics, fuel, facilities etc., amounting to about $200 billion) and services (IT services, knowledge-based services, facilities upkeep, weapons system maintenance, transportation, etc., amounting to about another $200 billion). We estimate that the efficiencies targeted by this Guidance can make a significant contribution to achieving the $100 billion redirection of defense budget dollars from unproductive to more productive purposes that is sought by Secretary Gates and Deputy Secretary Lynn over the next five years.

Since June, the senior leadership of the acquisition community – the Component Acquisition Executives (CAEs), senior logisticians and systems command leaders, OSD officials, and program executive officers (PEOs) and program managers (PMs) – has been meeting regularly with me to inform and craft this Guidance. We have analyzed data on the Department's practices, expenditures, and outcomes and examined various options for changing our practices. We have sought to base the specific actions I am directing today on the best data the Department has available to it. In some cases, however, this data is very limited. In these cases, the Guidance makes provision for future adjustments as experience and data accumulate so that unintended consequences can be detected and mitigated. We have conducted some preliminary estimates of the dollar savings anticipated from each action based on reasonable and gradual, but steady and determined, progress against a clear goal and confirmed that they can indeed be substantial.

Changing our business practices will require the continued close involvement of others. We have sought out the best ideas and initiatives from industry, many of which have been adopted in this Guidance. We have also sought the input of outside experts with decades of experience in defense acquisition.

Key Attributes of Document Streamlining

Prior Document	→	Revised Document
• Prepared for senior management with little meaning for the preparers		• Prepared by the Program Office FOR USE by the Program Office team
• Insufficient planning detail		• Planning detail is a key for success
• Too many pages; too little or irrelevant content		• Reduce number of pages to what is needed; do not restate processes
• Too much duplication of common information		• Reduce duplication: common information goes in one master location (repository?)
• Accretion of information requirements over time		• Repository enables re-use and currency; connectivity is necessary
• Streamlining efforts could be applicable at all levels of the Enterprise		• Streamlining efforts flowed down to all levels of the Enterprise

INTENT: **Change the focus to documents that the Program team actually needs and uses to manage their Program:**

Concept → Design → Sustainment

Mr. Kendall's Guidance to OSD Staff

- **Achieving affordable and executable programs**
- **Sound investment decisions**
- **Focus on the substance, not the form**
- **Flexibility in helping programs succeed – but also insistence on sound planning**
- **Expertise in your area of responsibility – staff specialists, not action officers**
- **Product and substance – not process – guides our actions**

DoDI 5000.02 Document Disposition Approved

Approval Delegated to Component

Document	SOURCE	Disposition
✓ **Acquisition Strategy (AS) / Technology Development Strategy (TDS)**	**Reg: DoDI 5[illegible].02**	**Approved**
Technical Data Rights Strategy	Stat: [illegible] USC 2320	Increased emphasis in AS
✓ **Systems Engineering Plan (SEP)**	**Reg: DoDI 5000.02**	**Approved**
Corrosion Prevention and Control Plan	Reg: DoDI 5000.67	Addressed in SEP
Individual Unit Identification (IUID) Implementation Plan	Reg: DoDD 8320.03 +	Addressed in SEP
PESHE / NEPA Compliance Plan	Stat: 10 USC 4321 +	Addressed in SEP
✓ **Program Protection Plan (PPP)**	**Reg: DoDI 5200.39**	**Approved**
Acquisition Information Assurance Strategy	Reg: DoDI 8580.1	Consolidated into PPP
✓ **Life-Cycle Sustainment Plan (LCSP)**	**Reg: DoDI 5000.02**	**Approved**

* Office of Primary Responsibility

DoDI 5000.02 Document Disposition In Work

Document	SOURCE	Disposition
Life-Cycle Signature Support Plan	**Reg: DoDD 5250.01**	**In work, renamed Life-Cycle Mission Data Plan to be more comprehensive**
Information Support Plan (ISP)	**Reg: DoDD 4630.05**	**In work**
Net-Centric Data Strategy (NCDS)	Reg: DoDD 8320.02	To be consolidated into ISP
T&E Master Plan (TEMP)	**Reg: DoDI 5000.02**	**In work; renamed at MS A**
T&E Strategy (TES)	**Reg: DoDI 5000.02**	**Replace TES w/TEMP at MS A**
Operational Test Plan (OTP)	**Stat:10 USC 2399**	**In work**
Economic Analysis (for MAIS programs)	**Stat: P.L. 106-398**	**In work**
Analysis of Alternatives (AoA)	**Stat:Title 40 Subtitle III**	**In work**
Cost Analysis Requirements Description (CARD)	**Reg: DoDI 5000.02**	**In work**
Manpower Estimate	**Stat: 10 USC 2434**	**Expected to remain the same**

Technology Development Strategy/ Acquisition Strategy

- **Increased emphasis on program business arrangements, risk and affordability**
- **Eliminated all information not central to management decision making (assigned to more logical functional locations)**
- **Content streamlined (data tables, lists, summaries)**

Classification/Distribution Statement, as required

TECHNOLOGY DEVELOPMENT STRATEGY

[or]

ACQUISITION STRATEGY

FOR

[PROGRAM NAME]

[Sample Outline]

20 April 2011

Version 1.0, 04/20/2011

1

Technology Development Strategy/ Acquisition Strategy

ORIGINAL

Technology Development Strategy Outline

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Acquisition Strategy Outline

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CHANGES

MOVE	
REQUIREMENT	**TO**
MOSA Summary	SEP
Corrosion Prevention Plan	SEP
ESOH Summary	SEP
Human Systems Integration	SEP

REMOVE	
LCSP	(now Stand Alone Document)
PPP Summary	(now Stand Alone Document)

REVISED OUTLINE
PRINCIPAL TOPICS

TECHNOLOGY DEVELOPMENT STRATEGY / ACQUISITION STRATEGY

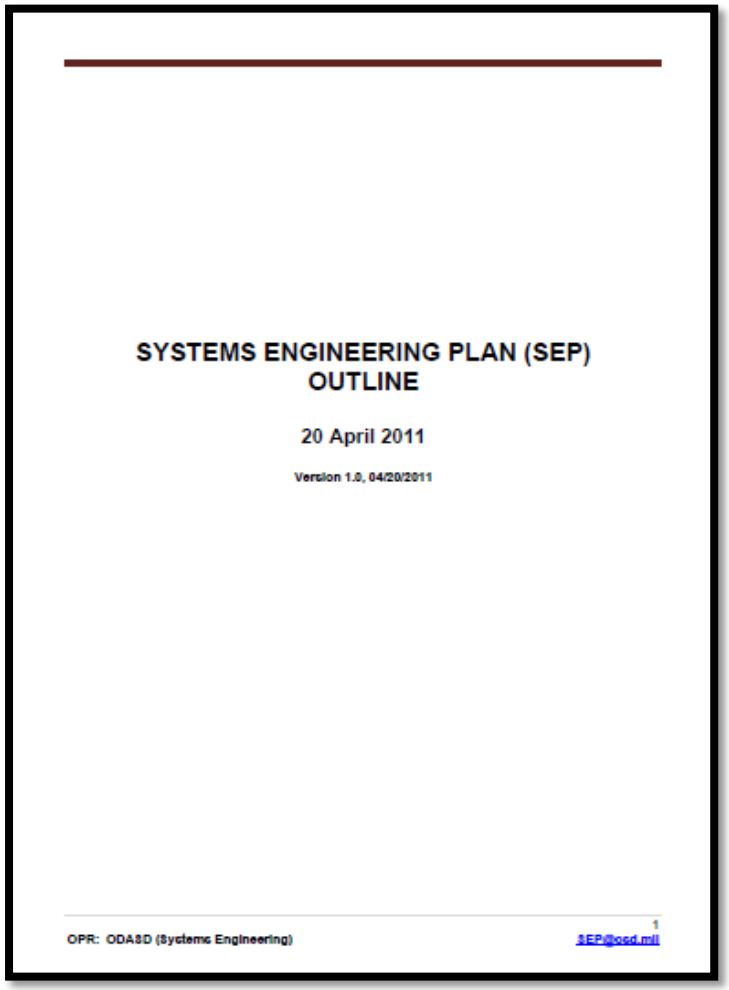
- **Executive Summary**
- **Capability Need**
- **Acquisition Approach**
- **Tailoring**
- **Integrated Schedule**
- **Risk & Risk Management**
- **Business Strategy**
  - **Competition Strategy**
  - **Contract Management**
  - **Data Management Strategy**
- **Cost and Funding**
- **Resource Management**
- **Other Considerations**

COORDINATION PROCESS

- **Incorporated Better Buying Power Initiatives into outline (e.g., Should Cost / Will Cost, Affordability, Schedule)**

Purpose of the SEP
(the OSD Perspective)

- **Provides the catalyst for the development, documentation, and approval of a Program's engineering approach**
- **Serves as the *Program's* living technical planning and management document**
- **Mandated by the Weapon Systems Acquisition Reform Act (WSARA) of 2009 for all MDAPs with approval by the Deputy Assistant Secretary of Defense (Systems Engineering)**


SYSTEMS ENGINEERING PLAN (SEP)
OUTLINE

20 April 2011

Version 1.0, 04/20/2011

OPR: ODASD (Systems Engineering)

1

SEP@osd.mil

SEP Streamlining Methodology

- **SEP should define minimum core content and set of data-driven products required for successful program execution and driven by SE policy**
- **Components may establish Component-level SEP contents inclusive of OSD core content**
- **SE-related contents from the Acquisition Strategy, including Modular Open Systems Approach (MOSA), Environmental Safety and Occupational Health (ESOH) Summary, Corrosion Prevention and Control Plan (CPCP), and Human Systems Integration (HSI) Summary, are replaced by table entries with links to affiliated plans**
- **The Item Unique Identification (IUID) Implementation Plan, previously a SEP annex, is approved at Component level and linked to the SEP**

New SEP Outline Content and Purpose

Key Sections	Rationale
1. Introduction	• Tracks revision control
2. Program Technical Requirements 2.1. Architectures and Interface Control 2.2. Technical Certifications	• Summarizes the expected architecture products, external interfaces, and links to common architectures • Identifies required system-level certifications
3. Engineering Resources and Management 3.1. Technical Schedule and Schedule Risk Assessment 3.2. Engineering Resources and Cost/Schedule Reporting 3.3. Engineering and Integration and Risk Management 3.4. Technical Organization 3.5. Relationships with External Technical Organizations 3.6. Technical Performance Measures and Metrics	• Documents integrated, event-driven system development schedule including WBS and IMP/IMS • Describes risk management process and organization; identifies system-level technical risks and opportunities • Diagrams technical structure and staffing (e.g., IPTs, Working Groups, etc.) • Identifies management of outside organizational interfaces • Describes program's use of metrics to measure technical progress
4. Technical Activities and Products 4.1. Results of Previous Phase SE Activities 4.2. Planned SE Activities for Next Phase 4.3. Requirements Development and Change Process 4.4. Technical Reviews 4.5. Configuration and Change Management Process 4.6. Design Considerations 4.7. Engineering Tools	• Summarizes completed system-level technical reviews, independent reviews, and trade studies and analogous plans for the next phase • Describes processes for requirements analysis, decomposition, and change management • Summarizes technical review planning details and responsibilities • Lists technical baseline artifacts and describes their management • Identifies relevant design considerations and linkage to contracts • Lists tools and required tool interfaces, if necessary

SEP: Mandated Tables and Figures

Tables

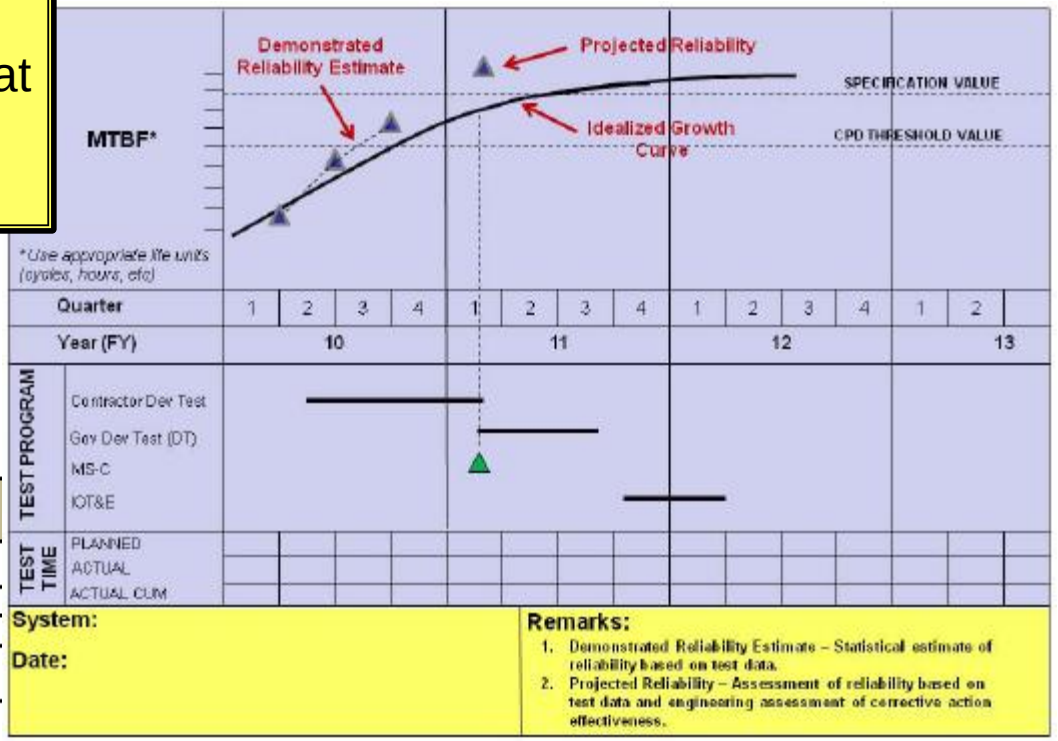
Table 1.1-1	SEP Update Record
Table 2.1-1	Required Memoranda of Agreement **(NEW)**
Table 2.2-1	Certification Requirements
Table 3.4.4-2	IPT Team Details
Table 3.6-2	Technical Performance Measures and Metrics **(NEW)**
Table 4.4-1-n	Technical Review Details
Table 4.6-1	Design Considerations **(NEW)**
Table 4.6-2	R&M Activity Planning and Timing **(NEW)**
Table 4.7-1	Engineering Tools **(NEW)**

Figures

Figure 3.1-1	System Technical Schedule
Figure 3.3-1	Technical Risk Cube
Figure 3.4.1-1	Program Office Organization
Figure 3.4.2-1	Program Technical Staffing
Figure 3.4.3-1	Contractor Program Office Organization
Figure 3.4.3-2	Contractor Technical Staffing **(NEW)**
Figure 3.4.4-1	IPT/WG Team Hierarchy
Figure 3.6-1	Reliability Growth Curve **(NEW)**
Figure 4.3.1-1	Requirements Decomposition/Specification Tree/Baselines
Figure 4.5-1	Configuration Management Process

New Reliability Reporting

Document the Reliability Growth Curve beginning at MS A, updated at each successive milestone, …



Implementation of New Reliability Policy

R&M Engineering Activity	Planning and Timing
R&M Allocations	
R&M Block Diagrams	
R&M Predictions	
Failure Definitions and Scoring Criteria	
Failure Mode, Effects, and Criticality Analysis (FMECA)	
Maintainability and Built-in Test Demonstrations	
Reliability Growth Testing at the System and Subsystem Level	
Failure Reporting , Analysis, and Corrective Action System (FRACAS)	

and report planning to generate R&M artifacts

SEP: New Figures and Tables

Name	Responsible Position /IPT	KPP or KSA	Performance Spec.	PDR Status Actual	MS B Status Actual	CDR Status Actual	MS C Status Planned	FRP Status Planned
Aerodynamic Drag (count)	SE IPT		<222	225	223	220	187	187
Thermal Utilization (kW)	SE IPT		<60	56	59	55	51	50
Electrical Power Usage (kW)	SE IPT		<201	150	185	123	123	123
Operating Weight (lb)	SE IPT		<99,000	97,001	101,001	97,001	85,540	85,650
Range (nm)	SE IPT		>1,000	1,111				
Average Flyaway Unit Cost (number)	SE IPT		<1.5	1.3				

*Note: Margin is 10%

Report technical performance metrics tied to KPP/KSA achievement …

Engineering Tool	Purpose	Position/IPT Responsibility
IMS		
IBM®Rational® DOORS®	Requirements Traceability and Verification Methodology and Completion	SE IPT/Rqmts Manager
Requirements Verification Matrix (RVM)	Requirements Verification	
Computer-Aided Three-Dimensional Interactive Application (CATIA)	Design	SE IPT
Risk Mgmt Information System (RMIS)	RM	SE IPT/Risk Manager
SW Integration Lab (SIL)	M&S	SW WG
SW Engineering	Design	SW WG
SW cost estimating COCOMO)		SW WG
ucibility/Throughput ysis Tool		Manufacturing WG
of Balance	Production planning	Manufacturing WG
bility Growth (e.g., ®, PM2, RGTM, M)	Reliability growth planning and tracking	SE IPT/R&M Lead

and list the tools the PMO uses to manage data and artifacts

SEP: New Tables and Figures

Document the Program's external dependencies …

REQUIRED MEMORANDA OF AGREEMENT				
Interface	Cooperating Agency	Interface Control Authority	Required By Date	Impact if Not Completed

Team Name	Chairperson	Team Membership (by Function or Organization)	Team Role, Responsibility, and Authority	Products and Metrics

SE IPT	Lead SE	• Program Office
		  ○ Platform Lead
		  ○ Mission Equipment Lead
		  ○ Weapons Lead
		  ○ Test Manager
		  ○ Logistics Manager
		  ○ SW Lead
		  ○ Production/Quality Manager
		  ○ Safety Lead
		  ○ Interoperability Rep.
		  ○ R&M Lead
		• PEO and PM
		• Service Representative
		• OSD SE
		• Key Subcontractor or Suppliers
			Role: IPT Purpose
			
			Responsibilities: Integrate all technical efforts
			• Team Member Responsibilities
			• Cost, Performance, Schedule Goals
			• Scope, Boundaries of IPT Responsibilities
			
			Schedule and frequency of meetings
			
			Date of signed IPT charter and signatory
				Products:
				SEP/SEP Updates
				IMP/IMS Input
				Specifications
				
				Metrics:
				-Cost
				-Performance
				-Schedule

XXX IPT	XXX Lead	• Program Office
		  ○ Lead SE
		  ○ Mission Equipment Lead
		  ○ Weapons Lead
			Role: IPT Purpose
			
			Responsibilities: Integrate all technical efforts
			• Team Member Responsibilities
				Products:
				Specification input
				SEP input
				TES/TEMP input

and IPT/WIPT/WG structures

SEP: Simplified Data Presentation

Mandated design considerations, key artifacts, and contractual requirements

Mapping Key Design Considerations into Contracts					
Name (Reference)	Cognizant PMO Org	Certification	Documentation (hot link)	Contractual Requirements (CDRL #)	Description/Comments
SE Tradeoff Analysis for Affordability			(MS B)		Provide the systems engineering trade-off analysis showing how cost varies as the major design parameters and time to complete are traded off against one another. The analysis will reflect attention to capability upgrades. The analysis will support MDA approval of an Affordability Requirement to be treated as a Key Performance Parameter (KPP) in the Acquisition Decision Memorandum. The analytical summary will include a graphic illustrating cost tradeoff curves or trade space around major affordability drivers (including KPPs when they are major cost drivers) to show how the program has established a cost-effective design point for those affordability drivers.
Corrosion Prevention and Control (ACAT I only)			CPCP (MS B & C)		Describe how design will minimize impact of corrosion and material deterioration on system throughout system life cycle.
Environmental Safety and Occupational Health (ESOH)			PESHE NEPA Compliance Schedule (MS B & C)		Describe how design will minimize ESOH by summarizing how program will integrate ESOH considerations into SE processes to include method for tracking hazards and ESOH risks and mitigation plans throughout the life cycle of system.
Human Systems Integration (HSI)					Summarize how HSI will be integrated within the SE processes, specifically addressing the human operator and maintainer requirement allocation approach that accounts for total system performance.
Item Unique Identification (IUID)			IUID Implementation Plan (MS B & C)		Describe how the program will implement IUID to identify and track applicable major end items, etc.
Manufacturing					Assess the manufacturing risk and readiness of all contributory processes and particularly those that are new or unproven in a full-rate production environment.
Open Systems Architectures					Describe how open systems architectures will be incorporated into the program's design to enable affordable change, evolutionary acquisition, and interoperability.
Program Protection and Information Assurance			PPP (MS A, B & C)		Describe how design will address safeguarding Critical Program Information (CPI) and provide countermeasures against hacking.
Reliability and Maintainability[3]			RAM contract language[1] RAM-C Report[2] (MS A, B, & C)		Describe how the program will implement and contract for a comprehensive R&M engineering program to include the phased activities in Table 4.6-2 and how R&M is integrated with SE processes.

SEP: Simplified Data Presentation

Planned Technical Review Details

New emphasis on Contractor artifact delivery

XXX Details Area	XXX Review Details (For this acquisition phase, fill out tailored criteria, etc.)
Chairperson	Identify the Technical Review Chair (Normally the LSE)
PMO Participants	Identify Positions/functions/IPTs within the program offices which are anticipated to participate. (Engineering Leads; Risk, Logistics, and Configuration Managers, Defense Contracting Management Agency (DCMA) Rep., and Contracting Officer, etc.)
Anticipated Stakeholder Participant Organizations	Representatives (stakeholders) from Service SE and Test, OSD SE and Developmental Test and Evaluation (DT&E), FoS/SoS, and the User
Anticipated Peer and Program-Independent SME Participant Orgs.	Identify Organizations which can provide a peer perspective and participants who will provide an independent assessment of how well the program is progressing but which have no stake in the program's success.
Purpose (of the review)	Describe the main purpose of the review and any specific SE goals
Entrance Criteria	Identify tailored Entrance Criteria
Exit Criteria	Identify tailored Exit Criteria
Products/Artifacts (from the review)	List expected products from the technical Review (for example) • Established system allocated baseline • Updated risk assessment for EMD • Updated Cost Analysis Requirements Document (CARD) or CARD-like document based on system allocated baseline • Updated program schedule including system and SW critical path drivers • Approved LCSP updating program sustainment development efforts and schedules • Draft Post-PDR Report (MDAPS)

New *PPP Outline and Guidance*


PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE

JUL 18 2011

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Document Streamlining – Program Protection Plan (PPP)

Frank Kendall

Signed by Principal Deputy USD(AT&L) on July 18, 2011

- **What's in the Policy Memo?**
  - *"Every acquisition program shall submit a PPP for Milestone Decision Authority review and approval at Milestone A and shall update the PPP at each subsequent milestone and the Full-Rate Production decision."*
  - Existing acquisition Information Assurance Strategy
    - Annex to PPP: Subject to a page count limit
    - POC – Art King, DoD CIO, arthur.king.ctr@osd.mil, 703-602-9969
  - Expected business practice, effective immediately, and reflected in upcoming DoDI 5000.02 and DAG updates
- **What's in the Outline and Guidance?**
  - Plans for identifying and managing risk to CPI and critical functions and components
  - Responsibilities for execution of comprehensive program protection
  - Tables of actionable data, not paragraphs of boilerplate
  - End-to-end system analysis and risk management
  - Similar approach as TDS/AS and SEP Outline and Guidance

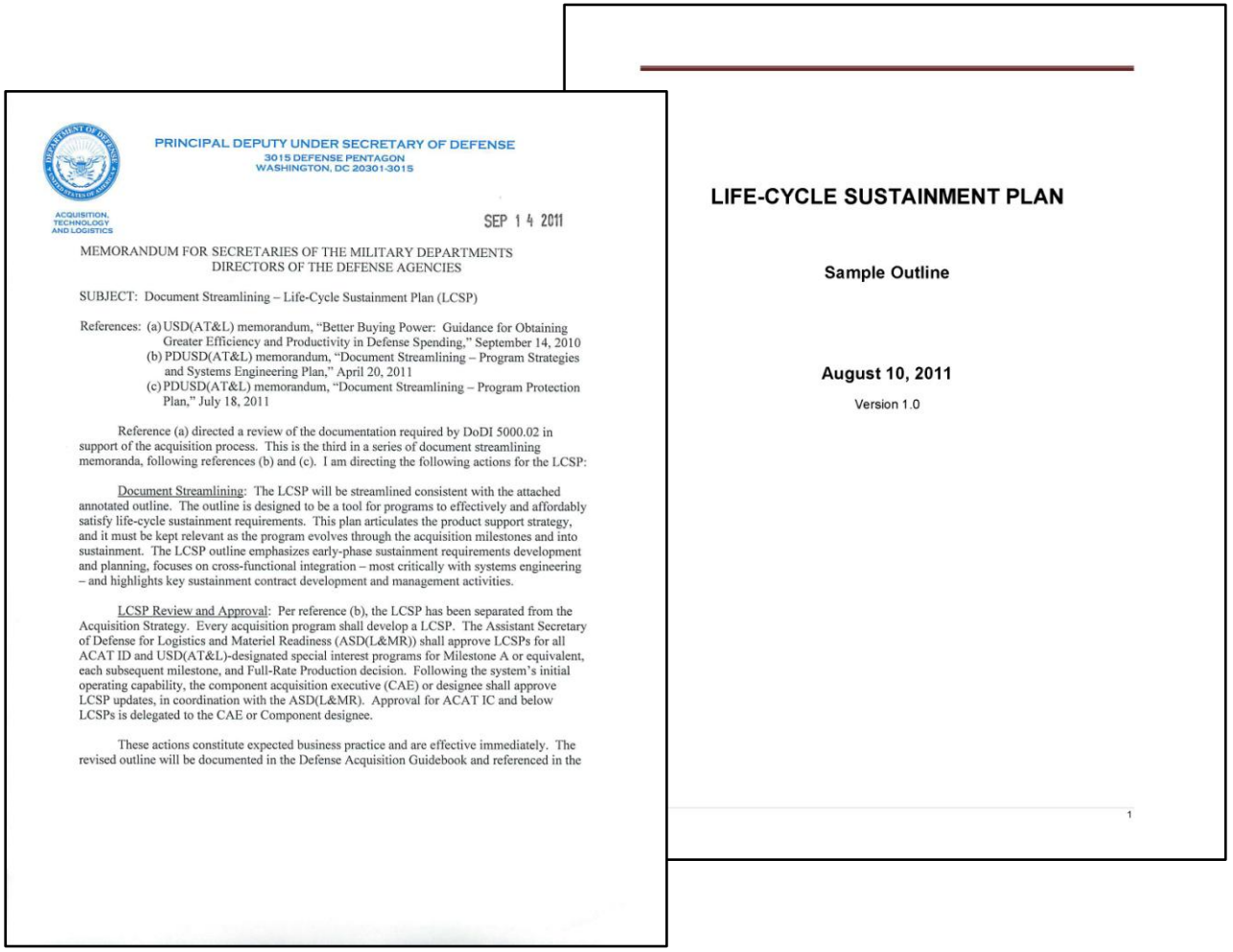
The PPP is the Single Focal Point for all security activities on the Program

Key Elements of the PPP

Key Sections	Rationale
3.0 CPI and Critical Components (CC) – Documents output of Research & Tech. Protect and Criticality Analysis – Distinguishes between inherited and organic elements	**Focus protection on mission-critical technology, information, and components**
4.0 Horizontal Protection – Assessment of similar CPI on other DoD programs, ASDB status	**Protect advanced technologies across DoD**
5.0 Threats, Vulnerabilities, and Countermeasures – Identifies foreign collection, supply chain, and battlefield threats – Documents assessment of vulnerability to threats and mitigating actions	**Acknowledge advanced, persistent threat Assess system threats and use risk-based design and process mitigations**
6.0 Other System Security-Related Plans and Documents – Pointers to related documents (CI Support Plan, TEMP, etc.)	**Reference, not duplicate, key documents**
7.0 Program Protection Risks – Document unmitigated risks to CPI and CC compromise	**Document risks program is assuming**
8.0 Foreign Involvement – Identify known and potential co-development, foreign military sales, and direct commercial sales	**Drive export realism and prepare for export-specific countermeasures early**
9.0 Processes for Management and Implementation of the PPP	**PM Resources and Integrating with Design Reviews**
10.0 Processes for Monitoring & Reporting Compromises – Monitor open source and intelligence sources for loss	**Assess effectiveness of implemented countermeasures**
11.0 Program Protection Costs – Estimate of implementation costs for CPI and CC protection	**Support cost/benefit assessment of risk mitigations**

The PPP contains the information a PM needs to effectively secure the system

Life-Cycle Sustainment Plan Outline and Guidance as "Expected Business Practice"



PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-3015

ACQUISITION, TECHNOLOGY AND LOGISTICS

SEP 14 2011

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Document Streamlining – Life-Cycle Sustainment Plan (LCSP)

References: (a) USD(AT&L) memorandum, "Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending," September 14, 2010
(b) PDUSD(AT&L) memorandum, "Document Streamlining – Program Strategies and Systems Engineering Plan," April 20, 2011
(c) PDUSD(AT&L) memorandum, "Document Streamlining – Program Protection Plan," July 18, 2011

Reference (a) directed a review of the documentation required by DoDI 5000.02 in support of the acquisition process. This is the third in a series of document streamlining memoranda, following references (b) and (c). I am directing the following actions for the LCSP:

Document Streamlining: The LCSP will be streamlined consistent with the attached annotated outline. The outline is designed to be a tool for programs to effectively and affordably satisfy life-cycle sustainment requirements. This plan articulates the product support strategy, and it must be kept relevant as the program evolves through the acquisition milestones and into sustainment. The LCSP outline emphasizes early-phase sustainment requirements development and planning, focuses on cross-functional integration – most critically with systems engineering – and highlights key sustainment contract development and management activities.

LCSP Review and Approval: Per reference (b), the LCSP has been separated from the Acquisition Strategy. Every acquisition program shall develop a LCSP. The Assistant Secretary of Defense for Logistics and Materiel Readiness (ASD(L&MR)) shall approve LCSPs for all ACAT ID and USD(AT&L)-designated special interest programs for Milestone A or equivalent, each subsequent milestone, and Full-Rate Production decision. Following the system's initial operating capability, the component acquisition executive (CAE) or designee shall approve LCSP updates, in coordination with the ASD(L&MR). Approval for ACAT IC and below LCSPs is delegated to the CAE or Component designee.

These actions constitute expected business practice and are effective immediately. The revised outline will be documented in the Defense Acquisition Guidebook and referenced in the

LIFE-CYCLE SUSTAINMENT PLAN

Sample Outline

August 10, 2011

Version 1.0

1

https://dap.dau.mil/policy/Lists/Policy%20Documents/Attachments/3303/USA005157-11_SignedLCSPMemo_14Sep2011.pdf

LCSP Executive Summary

- **LCSP Facts**
  - The Life-Cycle Sustainment Plan (LCSP) is the program's primary management tool to satisfy the warfighter's sustainment requirements through the delivery of a product support package*
  - Separated from Acquisition Strategy
  - Annotated outline released
    - Required for all programs
    - Approval for ACAT ID through ASD(L&MR)
- **Systems Engineering linkages**
  - Active partnership between product support and systems engineering communities is critical to ensure acquisitions are affordable
  - Sustainment planning depends on reliability, maintainability, and logistics footprint
    - These drive availability, which ultimately influences size of the acquisition
    - Actual operations and support cost heavily driven by the reliability growth

In today's tight budget climate, the LCSP facilitates alignment between systems engineering and product support to deliver affordable systems

*The logistics elements and any sustainment process contracts/agreements to attain and sustain the maintenance and support needed for materiel availability…"sustainment" and "product support" are synonymous

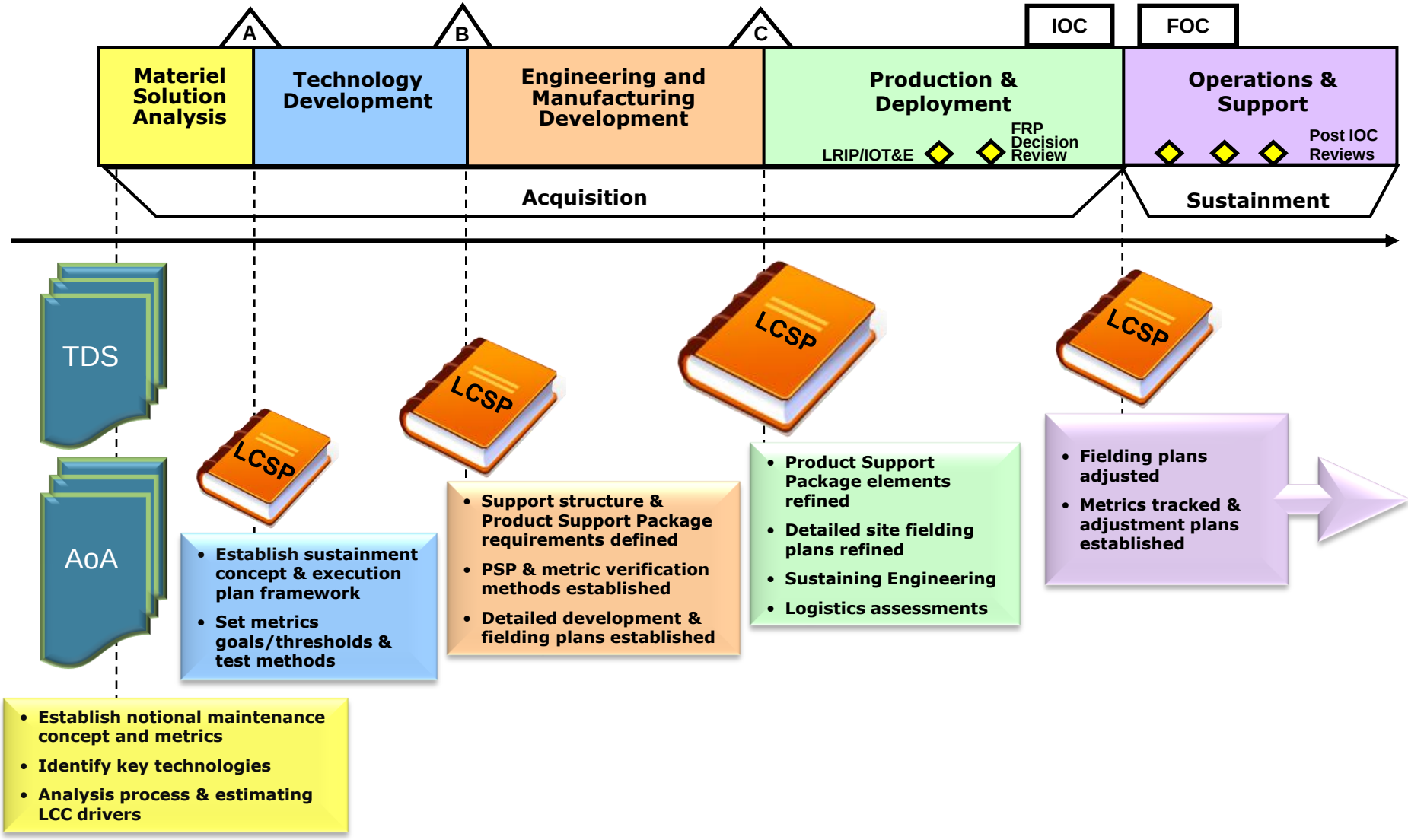
LCSP Expectations

LCSP is…	LCSP is NOT…

• It is the program's plan for fulfilling its product support strategy, which includes accomplishing policy and associated guidance
• It focuses on **specifically how** the program will implement it
  • Who will do what
  • When
  • How (specific tools/processes)
  • How much it will cost
	A rehash of policy or guidance

• It is the program's management tool for delivering the product support package which includes communicating the plan at all levels	Assembled solely to satisfy a Milestone Decision Authority at a milestone review
• It is a living document describing the sustainment approach and resources necessary across the life cycle • The LCSP must document the **current** program plan relative to sustainment	Static, a document that lives separately from the management reality of the program

Throughout the Acquisition Process the Development Focus of the LCSP Evolves



LCSP, Key Linkages with SE Content

LCSP Table of Contents

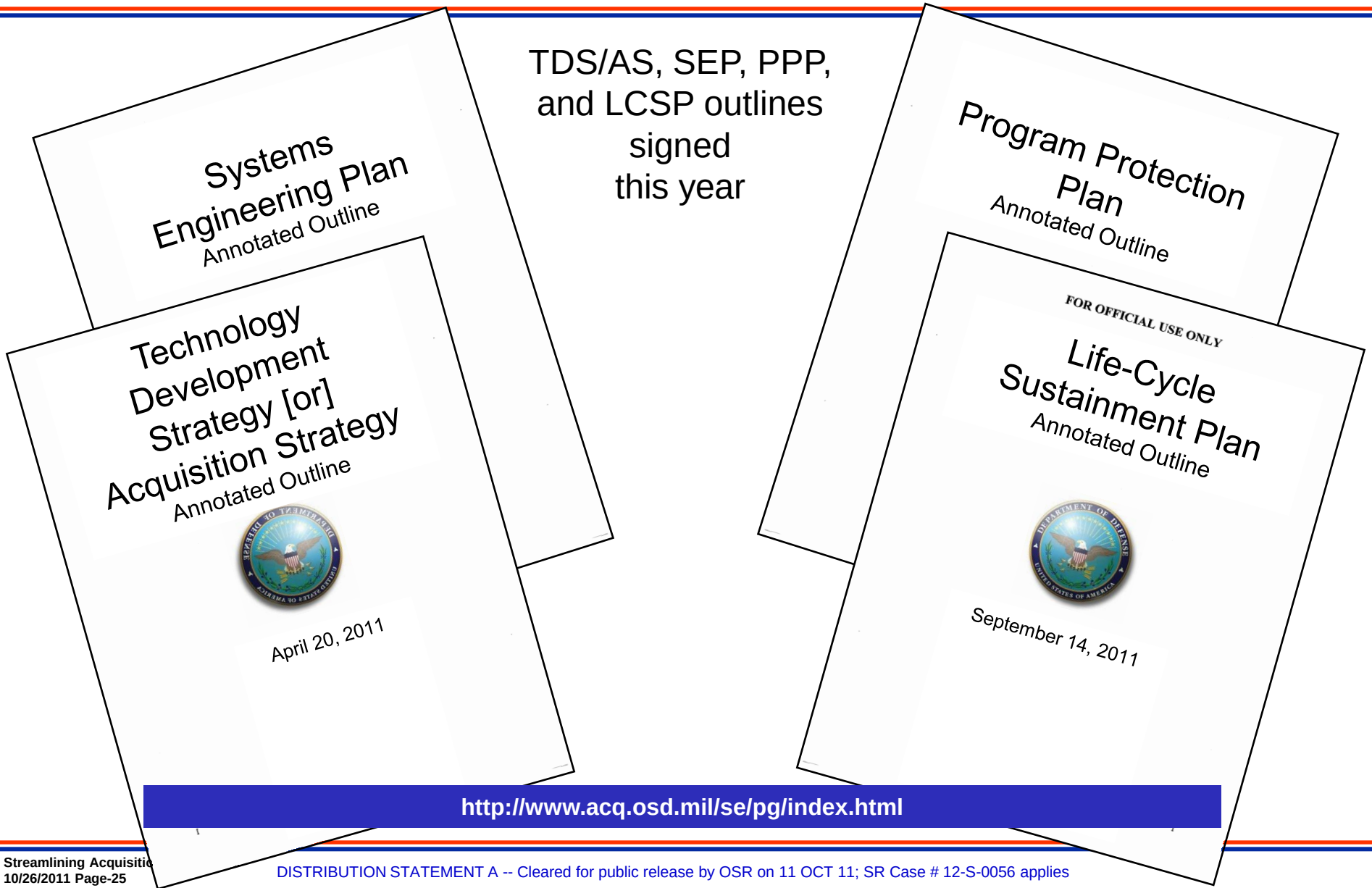
1. Introduction
2. Product Support Performance
3. Product Support Strategy
4. Product Support Arrangements
5. Product Support Package Status
6. Regulatory/Statutory Requirements
7. Integrated Schedule
8. Funding
9. Management
10. Supportability Analysis
11. Additional Sustainment Planning Factors
12. LCSP Annexes

- 2.1 Sustainment Performance Requirements
- 2.2 Testing and Demonstrating Sustainment Requirements
- 3.1 Strategy Considerations

- 10.1 Design Interface
  - 10.1.1 Design Analysis
  - 10.1.2 Technical Reviews
- 10.2 Product Support Element Determination
- 10.3 Sustaining Engineering

Annotated Outlines Released as "Expected Business Practice"

TDS/AS, SEP, PPP, and LCSP outlines signed this year



http://www.acq.osd.mil/se/pg/index.html

What haven't we touched yet?

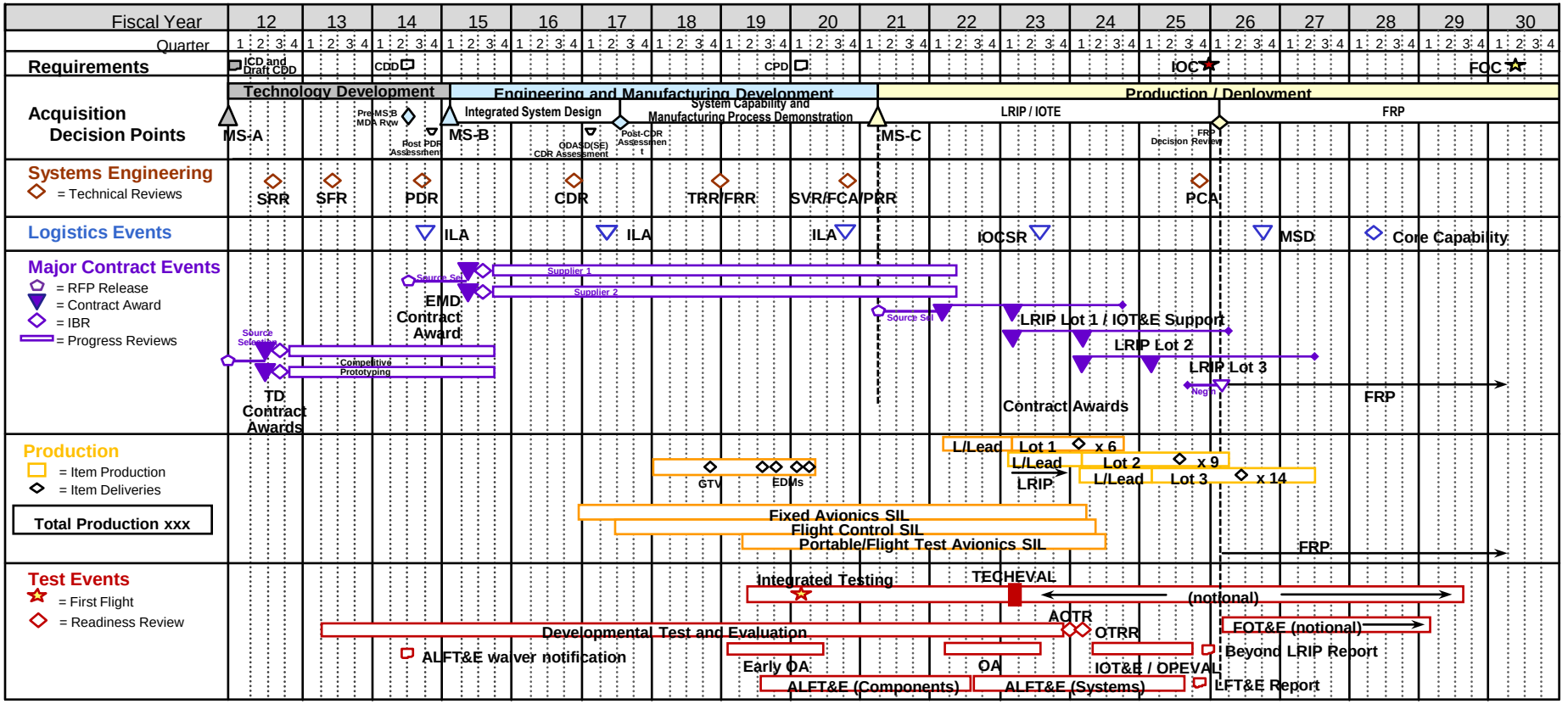
SPEED!

- **Streamlining the document generation processes is great, but if the process for approval is not changed to reflect putting responsibilities where they properly lie, we will take as long or longer to get documents approved**
- **Discussion questions:**
  - **Who should say YES??**
  - **Who can say NO?**

Backup

Current SEP Preparation Guide Table of Contents

New Detailed System Technical Schedule
(also in Technology Strategy / Acquisition Strategy)



AOTR: Assessment of Operational Test Readiness
ALFT&E: Alternative Live Fire Test & Evaluation
CDR: Critical Design Review
EDM: Engineering Development Model
EMD: Engineering & Manufacturing Development
FCA: Functional Configuration Audit
FOT&E: Follow-On Operational Test & Evaluation
FRP: Full Rate Production
FRR: Flight Readiness Review
GTV: Ground Test Vehicle
ILA: Integrated Logistics Analysis
IOCSR: Initial Operational Capability Supportability Review
IOT&E: Initial Operation Test & Evaluation
LFT&E: Live Fire Test & Evaluation
LRIP: Low-Rate Initial Production
MDA: Milestone Decision Authority
MSD: Material Support Date
OA: Operational Assessment
OASD(SE): Office of the Assistant Secretary of Defense (Systems Engineering)
OPEVAL: Operational Evaluation
OTRR: Operational Test Readiness Review
PCA: Physical Configuration Audit
PDR: Preliminary Design Review
PRR: Production Readiness Review
SFR: System Functional Review
SIL: Systems Integration Lab
SRR: System Requirements Review
SVR: System Verification Review
TD: Technology Development
TECHEVAL: Technical Evaluation
TRR: Test Readiness Review

What are We Protecting?

Program Protection Planning

DODI 5000.02 Update

Technology	Components	Information
DoDI 5200.39 Change 1, dated Dec 10	DTM 09-016	DoDI 5200.39 DTM 09-016
What: Leading-edge research and technology	**What**: Mission-critical elements and components	**What**: Information about applications, processes, capabilities and end-items
Who Identifies: Technologists, System Engineers	**Who Identifies**: System Engineers, Logisticians	**Who Identifies**: All
ID Process: CPI Identification	**ID Process**: Criticality Analysis	**ID Process**: CPI identification, criticality analysis, and classification guidance
Threat Assessment: Foreign collection threat informed by Intelligence and Counterintelligence assessments	**Threat Assessment**: DIA SCRM TAC	**Threat Assessment**: Foreign collection threat informed by Intelligence and Counterintelligence assessments
Counter Measures: AT, Classification, Export Controls, Security, Foreign Disclosure, and CI activities	**Counter Measures**: SCRM, SSE, Anti-counterfeits, software assurance, Trusted Foundry, etc.	**Counter Measures***: Information Assurance, Classification, Export Controls, Security, etc.
Focus: "Keep secret stuff in" by protecting any form of technology	**Focus**: "Keep malicious stuff out" by protecting key mission components	**Focus**: "Keep critical information from getting out" by protecting data

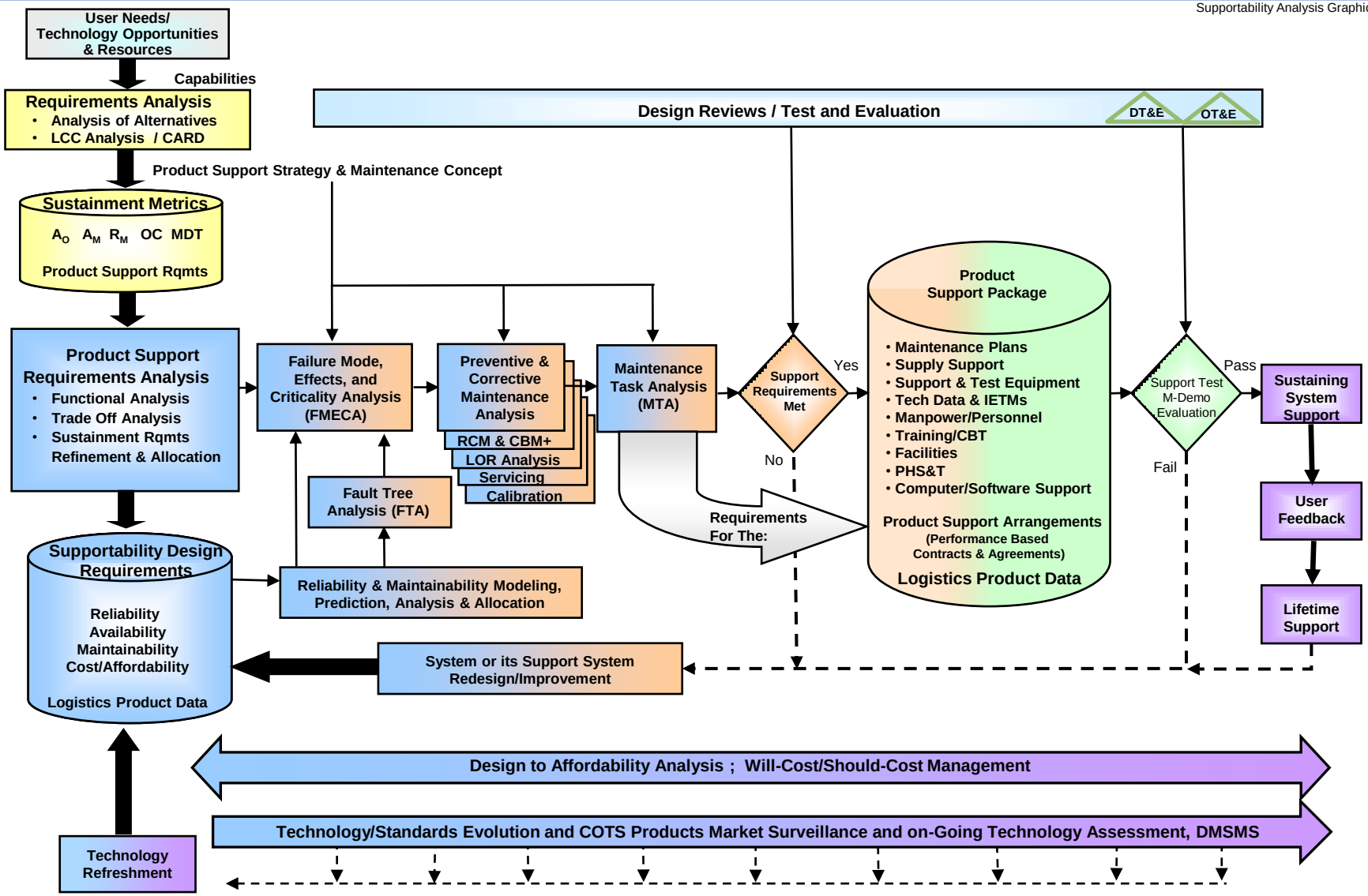
Protecting Warfighting Capability Throughout the Lifecycle

* Program Protection Planning Includes DoDI 8500 series

Supportability Analysis Life Cycle Framework

Continuous Assessment and Improvement for Affordability

Supportability Analysis Graphic 07-05-11



Supportability Trades

Completed Supportability Trades Jan 10, 2009				
Trade (Completed since 11/12/07)	**IPT**	**Options Analyzed**	**Results**	**Impact**
Engine level of repair 5/20/08	Engine IPT	**Alternatives:** – 2 level or 3 levels of repair – Centralized 2nd level of repair or at every major site – Commercial or organic at 2nd or 3rd level **Criteria:** – A_M and A_O – Program costs and O&S costs	– 3 levels of maintenance with 2nd level being performed commercially at 3 central sites for hot sections – 3rd level performed by industry	– Competitive 2nd and 3rd level performance based contract in place by IOC to cover all sustainment functions, (e.g. design, maintenance, supply, transportation, etc.). – Complete drawing set needed for competition

Supportability Considerations

Consideration	Core Documents	Cost Driver	Product Support Element Impact/ Control
CONOPS			
Desert Operations	• System CARD: 1.2.1x.s Environmental Conditions: 3.2; Basing & Deployment Description • CONOPS: OPLAN 5500, para 3.1 • CDD (May 24, 2014): Para 3	• Increased scheduled maintenance cycle; filter demand and filter cost	Design Interface; Supply; Technical Data; Higher Incidence of Failure Include filter system to filter to 0.1µ
DESIGN FEATURE			
Hydrazine	• System CARD: 1.2.1.x.2 • Environmental Conditions: 3.4.3 • Training: 5.0	• 6 additional personnel per operating wing; specialized /dedicated equipment, facilities and IPE	Manpower & Personnel; Training; Support Equipment Facilities Specialized manning, training, & facilities / alternative power sources addressed in ongoing trade study; ECD: Jun 2013
Nuclear Hardening	• System CARD • CDD (May 24, 2014): Para 10	• Specialized test equipment at field and depot • Training	Design Interface; Maintenance; Training; Support Equipment Flight controls and weapon control/delivery system shielded

Better Buying Power

- **Will Costs**
  - Teaming to define & document cost drivers
    - Within PMs & users control
    - Outside DoD's control
- **Should Costs**
  - Ensuring SE process driving the weapon system & Product Support Package design
    - KPP/KSA decomposed down to "Design to" requirements
  - Requiring "artifacts" relative to:
    - Design Reviews
    - Testing
    - Supportability Analysis

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SE and product support drive affordability