



Engineering Management & Integration

Is There Order or Chaos After 5000?

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Is There Order or Chaos After 5000?



- **5000 is dead; Long live 5000!**
- **The Mandate for Change**
- **So, What has Changed?**
- **What Does it Mean to Tailor?**
- **Acquisition Life Cycle as an Integration Mechanism**
- **How to Help Apprentice Tailors**
- **Critical Success Factors**
- **Brave New World**

Haven't you heard?

**“Life Cycle Management
is DEAD !”**

**“They cancelled the 5000 regs.
We don't have to do that
any more.”**

Change

	Department of Defense INSTRUCTION
	Department of Defense DIRECTIVE
	NUMBER 5000.1
	January xx, 2003 USD(AT&L)
	DRAFT
SUBJECT: The Defense Acquisition System	NUMBER 5000.2
	January xx, 2003 USD(AT&L)
	DRAFT
References:	January 27, 2002
(a) Deputy Secretary of Defense Memorandum, <i>Defense Acquisition</i> , October 30, 2002, attachments 1 and 2 (hereby cancelled)	January 2, 2002
(b) DoD Instruction 5000.2, <i>Operation of the Defense Acquisition System</i> , January xx, 2003	<i>Requirements Generation</i>
(c) Federal Acquisition Regulation (FAR), current edition	
(d) Defense Federal Acquisition Regulation (DFAR) Supplement, current edition	and current laws.
(e) Chairman of the Joint Chiefs of Staff Instruction 3170.01 Series, <i>Requirements Generation System</i> , April 15, 2001	translating mission requirements, into systems and
(f) Secretary of Defense Memorandum, <i>Missile Defense Program Direction</i> , January 2, 2002	s Milestone and performance
(g) DoD Directive 4630.5, <i>Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)</i> , January 11, 2002	
(h) DoD Directive 2060.1, <i>Implementation of, and Compliance with, Arms Control Agreements</i> , January 9, 2001	the Chairman of or General of the other organizational "the DoD" reference (d).
(i) Section 2350a of title 10, United States Code, <i>Cooperative Research and Development Projects: Allied Countries</i>	requirements, where or Automated
(j) Section 2751 of title 22, United States Code, <i>Need for international defense cooperation and military export controls; Presidential waiver; report to Congress; arms sales policy</i>	
(k) Section 2531 of title 10, United States Code, <i>Defense memoranda of understanding and related agreements</i>	
1. <u>PURPOSE</u>	
This Directive:	
1.1. Authorizes publication of reference (b).	
1.2. Describes management principles applicable to all DoD acquisition programs. This Directive, along with reference (b), provides management principles and mandatory policies and procedures for the management of all acquisition programs, except when statutory requirements override. If there is any conflicting guidance pertaining to contracting, the Federal Acquisition Regulation (FAR) (reference (c)) and/or the Defense FAR (DFAR) Supplement (reference (d)) shall take precedence.	
1.3. Complements CJCSI 3170.1, reference (e), which establishes policies and procedures for the DoD requirements generation system.	
2. <u>APPLICABILITY</u>	
2.1. This Directive applies to the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, Office of the	

“revision to create an acquisition policy environment that fosters efficiency, flexibility, creativity, and innovation.”

“simplified and flexible management framework for translating mission needs and technology opportunities ...into stable, affordable, and well-managed acquisition programs...”

The Charges Against LCM

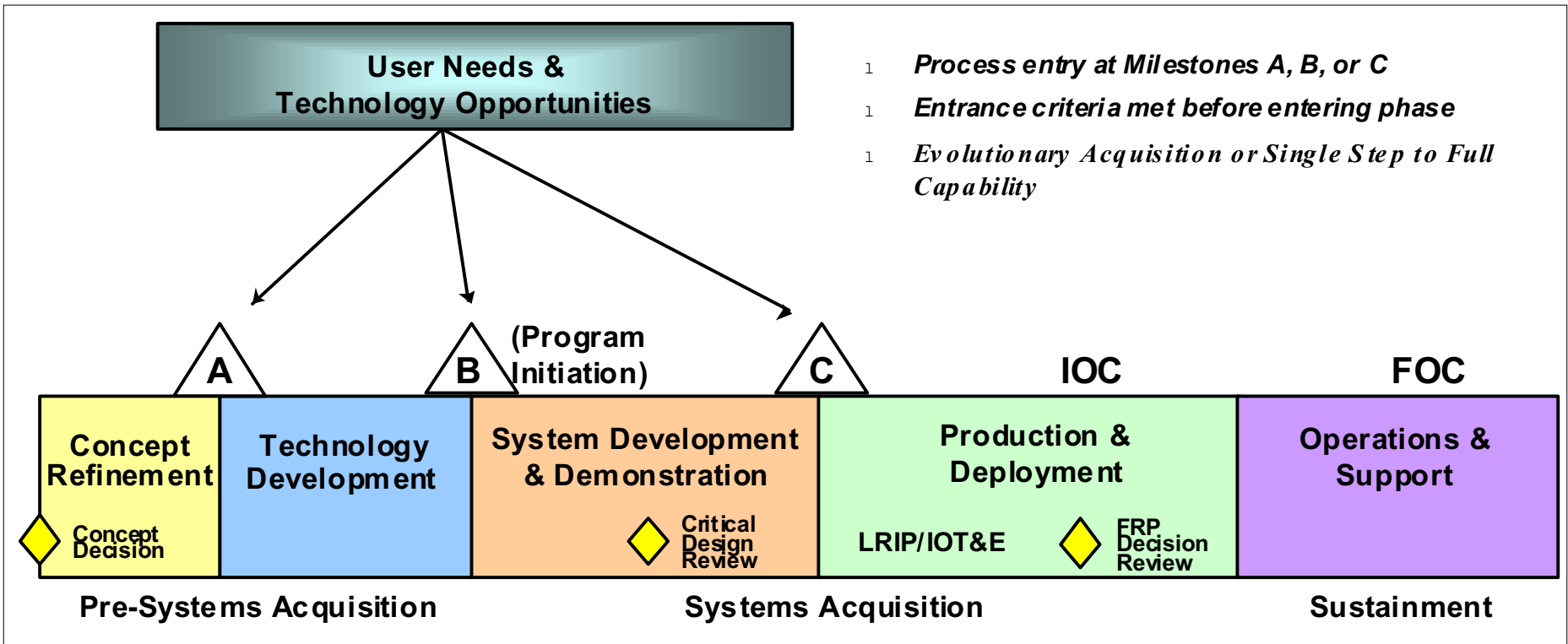
- DoD 5000 was “overly prescriptive” and an impediment to the “efficiency, creativity, and innovation” needed.
- It costs extra; It costs too much.
- It’s done after the fact.
- It’s not really required. Is it?
- Nobody does it; why do I have to?
- I already know how to do my job.
- It’s documents. I hate documents.
- No one uses what it produces.
- It does not help the decision process.
- It does not contribute to my getting my job done.
- It’s documentation for documentation’s sake.



Renewed Emphasis

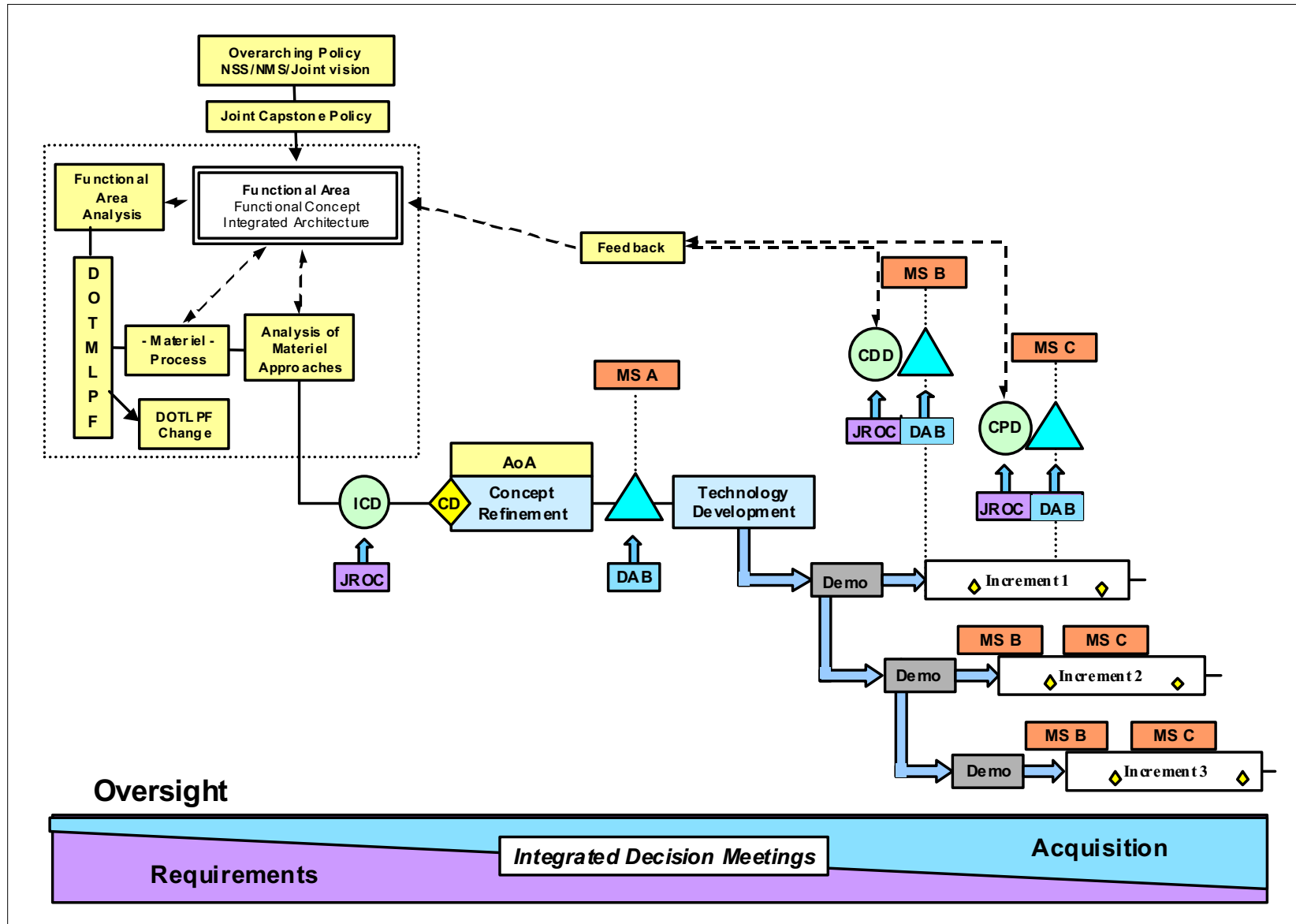
- **Flexibility**
- **Evolutionary Development**
- **Integrated Architectures**
- **Tailoring the Acquisition Process**
- **Cost Realism**
- **Focus on Outcomes**
- **Enable Responsibility in Decisions**

Acquisition Management Framework



5000.2 Draft
18 December 2002

Requirements & Acquisition Process



5000.2 Draft
18 December 2002

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28 January 2003

Dangers

- **Stealth resistance to change**
- **Inflexible flexibility**
- **“Opening the door to fraud, waste, and abuse”**
- **Buy the COTS, then find the reason**
- **“This, too, shall pass...”**
- **and, the worst danger of all: staying the same**



**Counterpoint:
Education reduces Risk**

Coping with Change

- **Is it okay if your ICD and CDD looks like a MNS and ORD?**



Tailoring

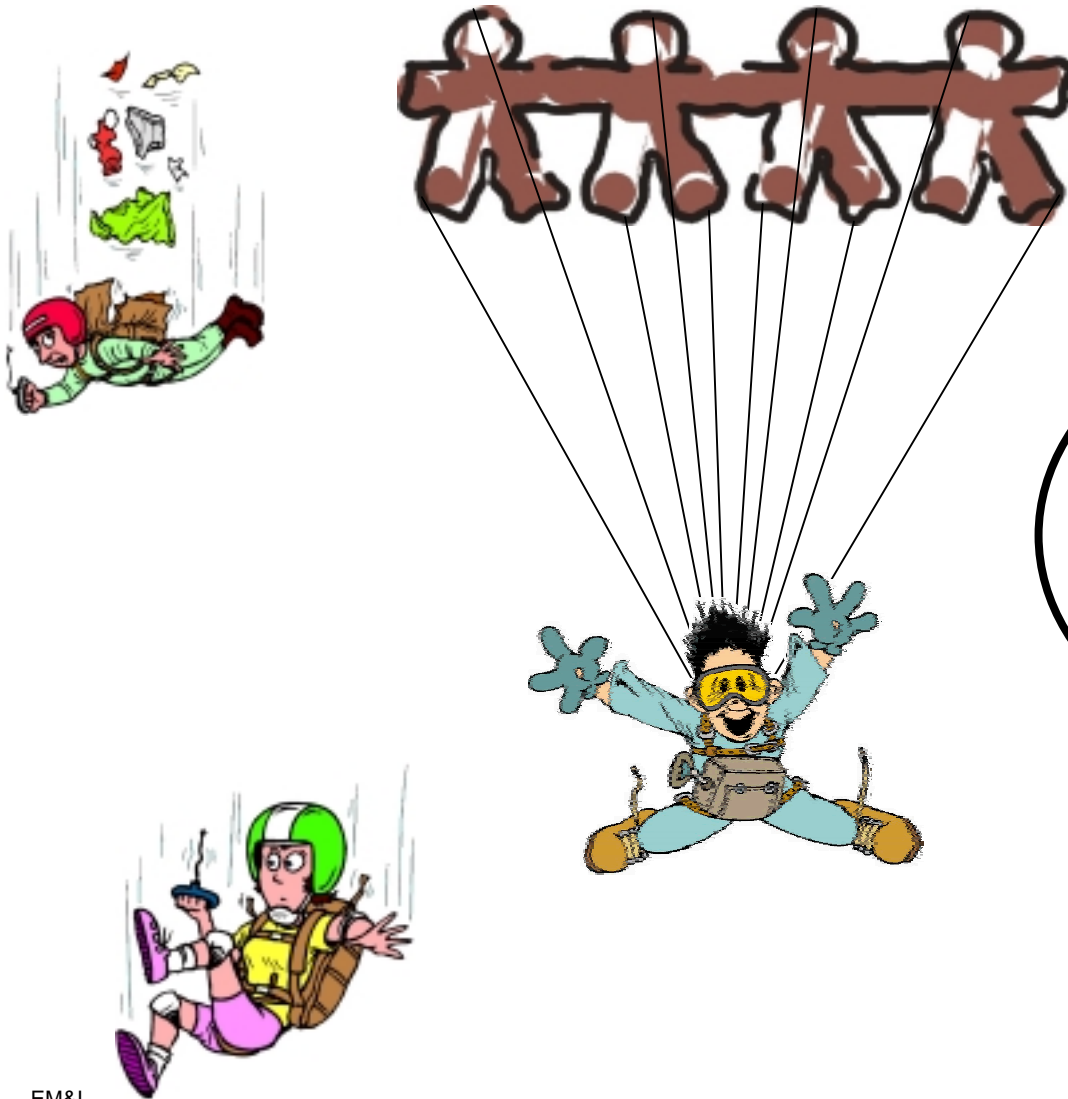
- **“MDAs and program managers shall tailor various aspects of the acquisition system, including**
 - **program information,**
 - **acquisition phases,**
 - **the timing and scope of decision reviews,**
 - **decision levels, and**
 - **acquisition strategies**



to fit the particular conditions of an individual program and minimize the time it takes to satisfy the validated need or exploit the technology opportunity,

consistent with common sense, sound business management practice, applicable laws and regulations, and the time-sensitive nature of the user's requirement.”

Unseamly Tailoring

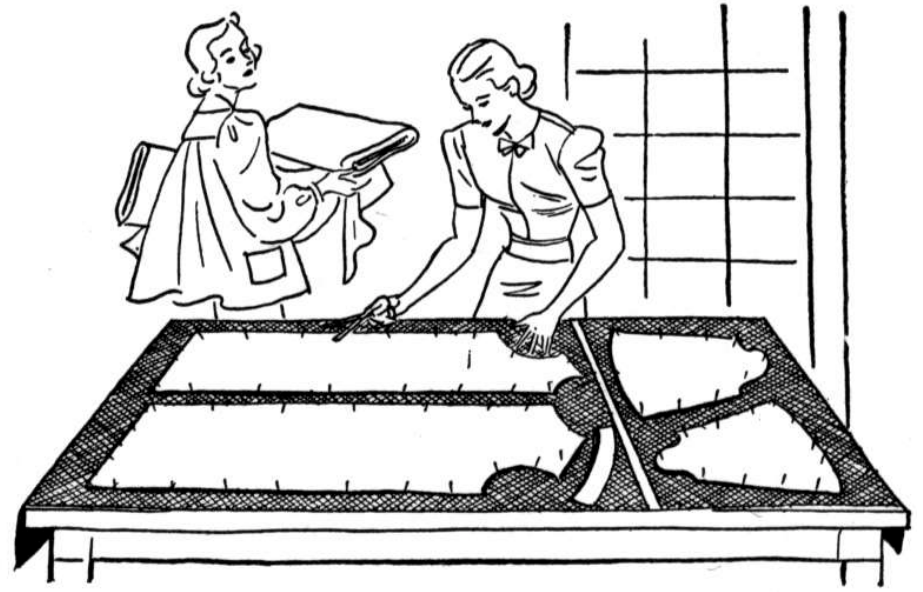


**Great!
I can tailor it
any way
I want to**

Well, no, you can't...

Tailoring from a Pattern

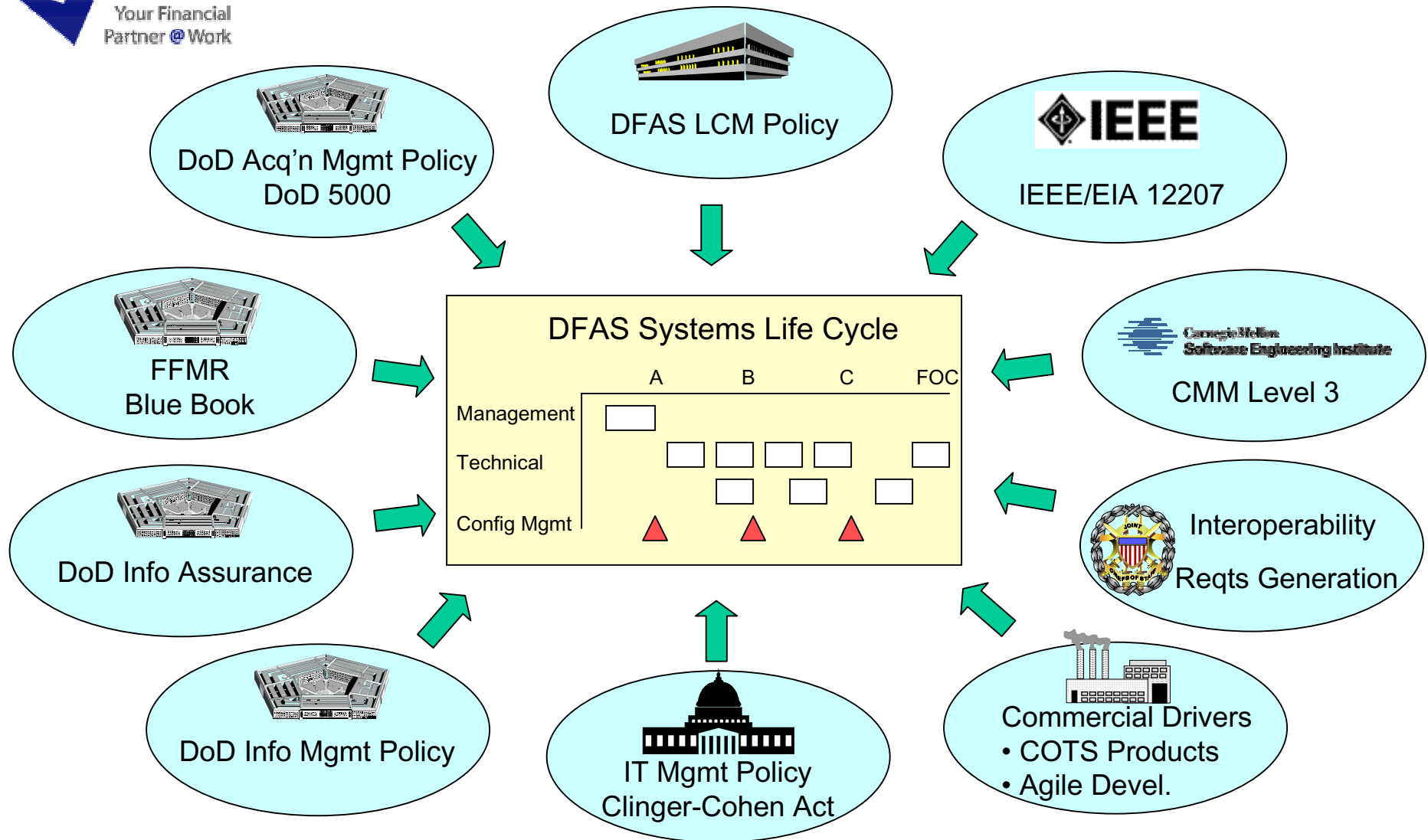
- **Having a Pattern to follow, one can:**
 - **adjust the size,**
 - **fit the nature of a different fabric,**
 - **add trim and appearance features,**
 - **alter sections to fit different needs,**
 - **reuse styles and techniques**
- **and still be following the Pattern!**



Tailoring

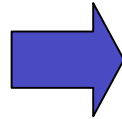
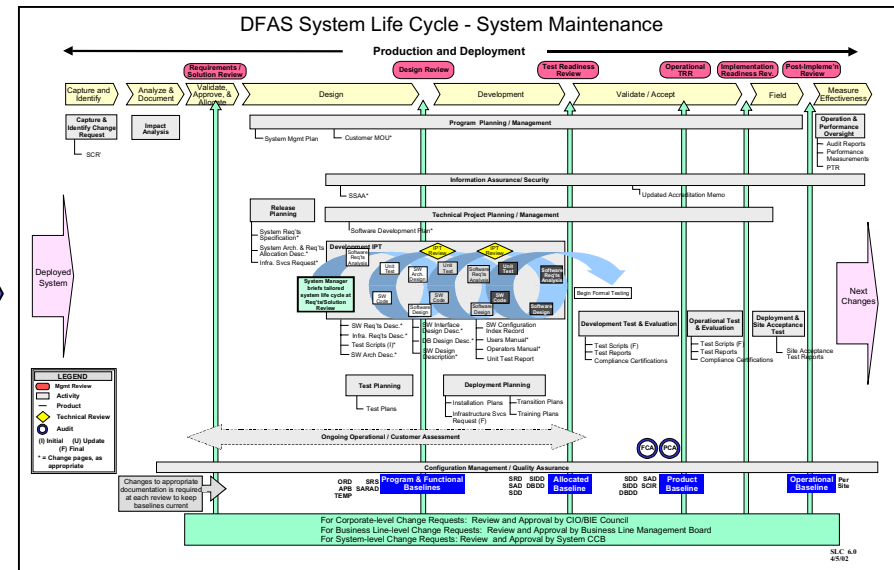
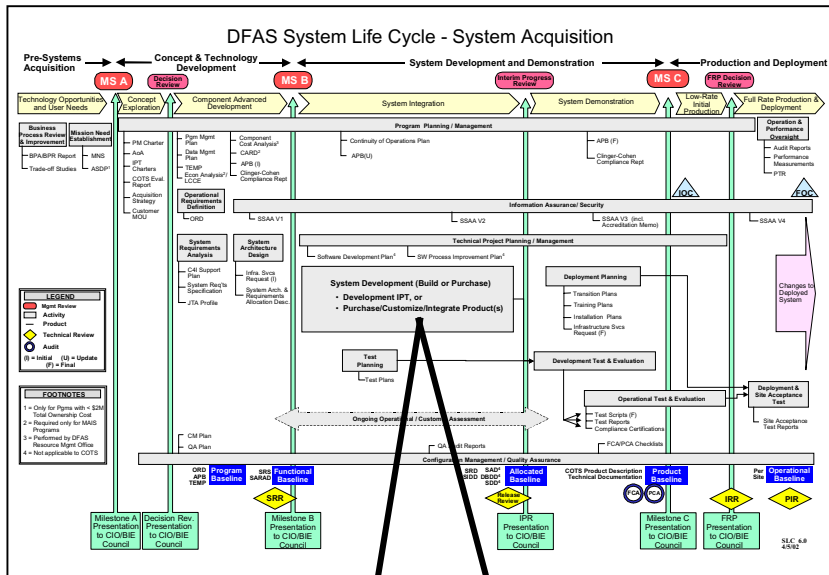
- **Not haphazard; It is an organized process.**
- **Recording and justifying decisions whether procedures stay or go in streamlining**
- **Identifying substitutes and constraints**
- **Ensuring flexibility, speed, and accountability**
- **Making adjustments for**
 - **Implementation strategy**
 - **Complexity**
 - **Oversight requirements**
 - **Cost range**
 - **Technical risk**
 - **Management tolerance for risk**

One Actionable Framework

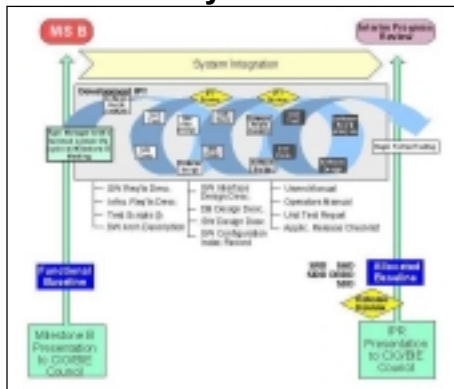


DFAS System Life Cycle

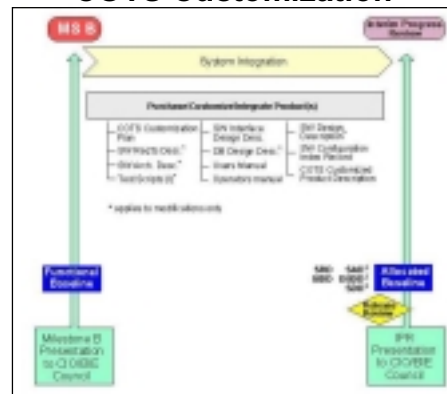
System Acquisition



Evolutionary Development

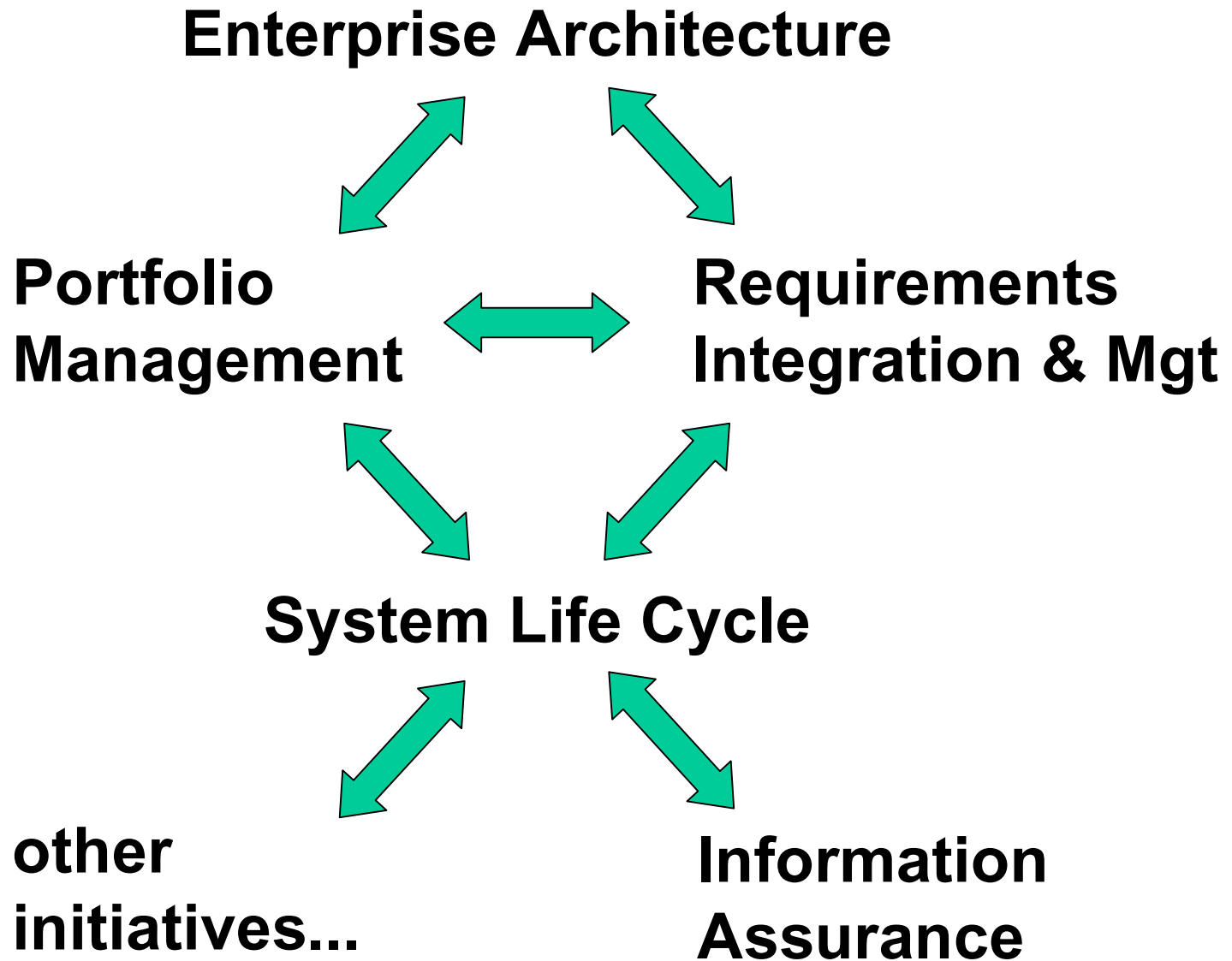


COTS Customization



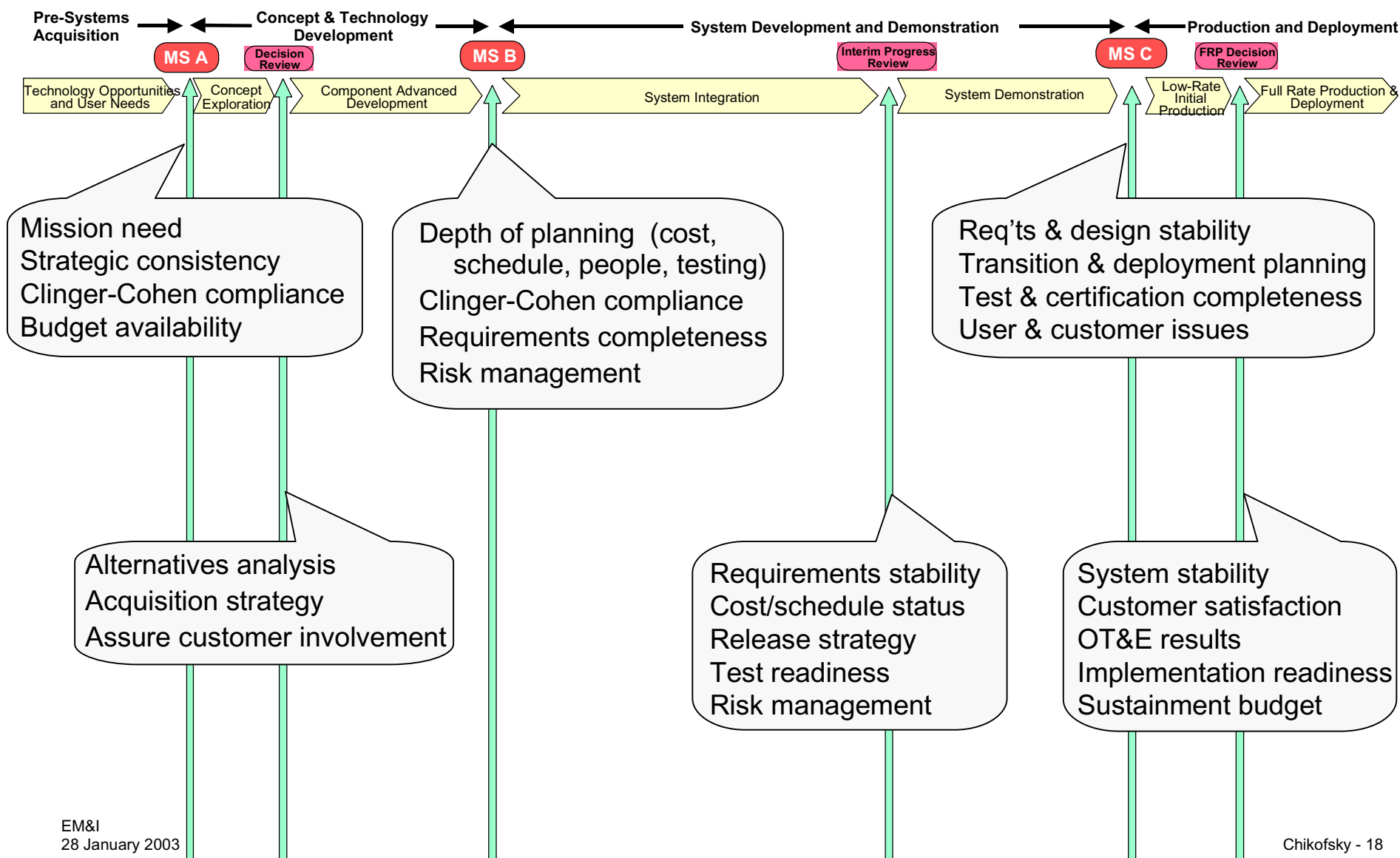
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Understanding Management Decisions



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- process
- task details
- briefing guidance
- templates

SYSTEM SECURITY AUTHORIZATION AGREEMENT

The System Security Authorization Agreement (SSA) is a formal agreement between the Designated Approving Authority (CA), the Program Manager (PM), and the...

- **Detailed Costs.** In a table similar to the System Life Cycle Cost Estimate (LCCE) or other cost estimate, list the year versus actual expenditures current and future years). Cost changes from the IPR brief.

Cost Category	Year
PMO Operations	
Requirements Gathering/Analysis	
Information Assurance	
TSO Cost	
COTS Product Buy/Support	
Training	
Network Infrastructure (DISA)	
Development Testing	
Operational Test and Evaluation	
Maintenance	
Total	

3. Schedule Performance

- In a table similar to below, list the milestones, dates, and either their actual completion date or revised completion date. Milestones...

Milestone	Original	Revised
Requirements Analysis		
Milestone B		
Development - Release 1		
DT&E - Release 1		
Development - Release 2		
DT&E - Release 2		
Milestone C		
OT&E		
IOC		
FOC		

- **Deployment schedule.** Identify the users in what releases. Consider... This is updated from the Milestone...

Release 6.0

SYSTEM LIFE CYCLE

May 17, 2002

System Life Cycle (SLC) Structure (Standard Process View)

Pre-Systems Acquisition

Business Process Review and Improvement

- [Identify and Document Initial Requirements](#)
- [Review Current Business Process](#)
- [Determine Business Process Requirements](#)

Mission Need Es

- [Analysis](#)
- [Establish Customer Requirements](#)

Milestone Review

- [Establish Milestones](#)
- [Conduct Milestone Reviews](#)

Concept and Techn

Program Plannin

- [Appoint Program Manager](#)
- [Perform COTS Analysis](#)
- [Perform COTS Evaluation](#)
- [Analyze Acquisition Strategy](#)
- [Determine Acquisition Strategy](#)
- [Determine Life Cycle Costs](#)
- [Establish Interim Milestones](#)
- [Maintain Customer Requirements](#)
- [Conduct Decision Analysis](#)
- [Establish Program Requirements](#)
- [Determine Program Requirements](#)
- [Determine Interim Milestones](#)
- [Prepare Cost Estimate](#)
- [Perform Funds Allocation](#)
- [Estimate Life Cycle Costs](#)
- [Perform Economic Analysis](#)
- [Establish Data Requirements](#)
- [Establish Test Requirements](#)
- [Establish Risk Requirements](#)
- [Develop Program Requirements](#)
- [Develop Budget](#)
- [Establish/Manage Program Requirements](#)
- [Perform Release Planning](#)
- [Plan Clinger-Comeaux](#)
- [Manage Program Requirements](#)
- [Establish Program Requirements](#)
- [Manage Program Requirements](#)

Operational Req

System Require

- [Identify User/Client Requirements](#)
- [Prepare C&I Statement](#)

Release 6.0

SYSTEM LIFE CYCLE

May 17, 2002

Task: Define Operational Requirements

Phase: Concept and Technology Development

Activity: Operational Requirements Definition

Process Area: Requirements Development and Management

Management Responsibility: Business Line Executive, Product Line Executive

Task Level: Enterprise, Application

1. **Task Name:** Define Operational Requirements

2. **Purpose:** Define the operational concept for a new system. Define the high-level objective for the system, the type of data to be processed, the users to be supported, the initial operational support requirement, and the operational performance parameters.

3. **Roles:** Functional Analyst

4. **References:**

- a. [Chairman of the Joint Chiefs of Staff Instruction \(CJCSI\) 3170.01B \(see Enclosure E \(Operational Requirements Document Generation\)\)](#)

5. **Entrance Criteria:**

- a. [Mission Need Statement \(MNS\)](#) (Word)
- b. [Operational Requirements Document \(ORD\) Standard](#) (Word)

6. **Procedures:**

- a. Establish a Requirements Integrated Product Team (RIPT)
- b. Define the operational capability
- c. Define the threat (e.g., fraud, security)
- d. Identify shortcomings of existing systems
- e. Determine capabilities required for the system
- f. Determine required program support
- g. Identify force structure impacts (e.g., transition, installation, deployment, and training)

NOT: occur 5000: the p requ stand progr

1. M ident and J funct system starts should know task I prep com

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Release 6.0 SYSTEM LIFE CYCLE May 17, 2002

**Information Assurance Only
Process Area View**

This list shows the phases and activities of the life cycle structure and the tasks for the Information Assurance process area ([highlighted and underlined](#)). To view the entire life cycle structure with the Information Assurance tasks highlighted, select "Entire SLC Structure" below:

<p>Pre-Systems Acquisition Business Process Review Mission Need Establishment Milestone Review</p> <p>Concept and Technology Development Program Planning/Management Operational Requirements Definition System Requirements Analysis Define Information Assurance Strategy <small>(Repeatable)</small></p> <p>System Architecture Define and Establish Information Assurance Conduct DITSG Milestone Review</p> <p>System Development and Demonstration Program Planning/Management Develop Configuration Management Technical Project Planning/Management Test Planning</p> <p>System Development and Demonstration <input type="checkbox"/> Develop <input type="checkbox"/> Purchase/Customize/Integrate</p> <p>Deployment Planning Establish Configuration Management Developmental Test and Evaluation Operational Test and Evaluation Information Assurance Conduct DITSG Conduct DITSG Configuration Management Milestone Review</p> <p>Production and Deployment Information Assurance Conduct Test Readiness Review <small>(Release Repeatable)</small></p> <p>Deployment and Sustainment Operation and Performance</p>	<p>Release 6.0 SYSTEM LIFE CYCLE May 17, 2002</p> <p style="text-align: center;">Quality Assurance Analyst Only Practitioner View</p> <p>This list shows the phases and activities of the life cycle structure and the tasks for the Quality Assurance Analyst role (highlighted and underlined). To view the entire life cycle structure with the Quality Assurance Analyst tasks highlighted, select "Entire SLC Structure" below:</p> <p style="text-align: center;">Entire SLC Structure</p> <p>Pre-Systems Acquisition Business Process Review and Improvement Mission Need Establishment Milestone Review</p> <p>Concept and Technology Development Program Planning/Management Establish Program Quality Assurance Strategy Operational Requirements Definition System Requirements Analysis Perform System Requirements Review (SRR) - *1 <small>(Release Repeatable)</small> System Architecture Design Information Assurance/Security Milestone Review</p> <p>System Development and Demonstration Program Planning/Management Technical Project Planning/Management Test Planning</p> <p>System Development <i>(Choose Develop OR Purchase/Customize/Integrate)</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;"> <p>Develop</p> <p>Perform Application Development - *2 Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p> </td> </tr> <tr> <td style="padding: 5px;"> <p>Purchase/Customize/Integrate</p> <p>Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p> </td> </tr> </table> <p>Deployment Planning Developmental Test and Evaluation Conduct Test Readiness Review <small>(Release Repeatable)</small> Operational Test and Evaluation Conduct Test Readiness Review <small>(Release Repeatable)</small></p>	<p>Develop</p> <p>Perform Application Development - *2 Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p>	<p>Purchase/Customize/Integrate</p> <p>Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p>
<p>Develop</p> <p>Perform Application Development - *2 Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p>			
<p>Purchase/Customize/Integrate</p> <p>Establish Allocated Baseline - *3 Perform SQA Audit of Product Perform SQA Review of Process</p>			

Views by:

- Process area
- Job role
- Management responsibility

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- > Reference Library
- > Process Asset Library
- > System Life Cycle

Help for the Apprentice Tailors

- **Levels of acquisition process tailoring**
 - Agency / MDA
 - Program
- **Education**
 - What it means to tailor
 - Rewards and risks of tailoring decisions
- **Tools for the pattern**
- **Easy ways to record tailoring decisions**
- **Making tools accessible and tailorable to program management**
- **Tailored Acquisition Process reviews**

Critical Success Factors

- **Visibility**
- **Recording tailoring decisions**
- **Consistency**
- **Accessibility**
- **Recognizing acquisition and sustainment as part of the same process**
- **Focused user involvement**
- **Understanding requirements, whenever recognized in the acquisition process**
- **Empower to manage, not to avoid risk**

Next Steps

Stay tuned...

**the DoD 5000 revisions,
and our understanding
of them, are a
work in progress...**

