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## Service Cost Position (SCP) - Process and Discussion



Presented to the  
Department of the Navy Cost Analysis Symposium  
September 2010

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Deputy Director, Naval Center for Cost Analysis

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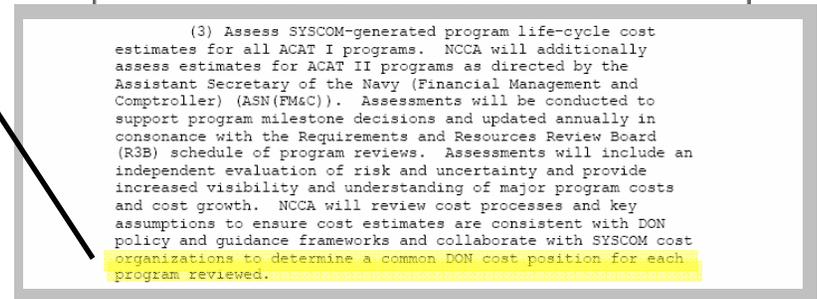
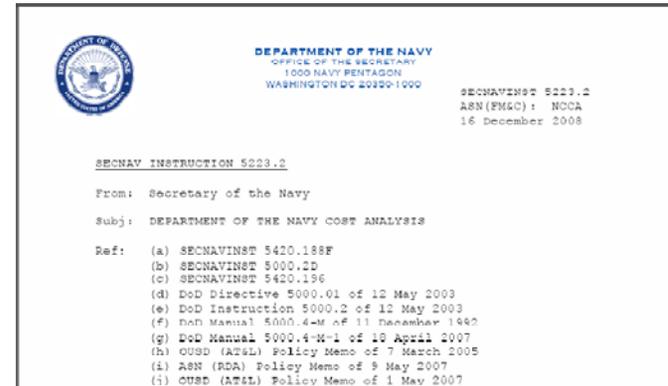
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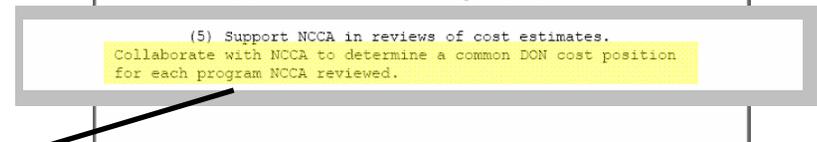
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# Service Cost Position SECNAV Guidance

- SECNAVINST 5223.2, 16 Dec 2008
  - For all ACAT I programs, NCCA shall:
    - Determine a common DON cost position
    - Provide insight into:
      - Cost drivers
      - Cost risk and uncertainty
      - Total Ownership Cost
  - SYSCOMs shall:
    - Support NCCA in reviews
    - Collaborate with NCCA to develop a common DON cost position



(1) Naval Center for Cost Analysis (NCCA)



*Common DON cost position = Service Cost Position*

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# Service Cost Position OSD CA&PE Guidance

- Required Signed and Documented Component-level Cost Position for Milestone Reviews, 12 March 2009
  - “A signed and documented Component-level cost position will be required for all MS A, B, C, and Full Rate Production Decisions”
  - “The Component must fully fund to this cost position in the current FYDP, or commit to full funding of the cost position in the next President’s Budget FYDP”



OFFICE OF THE SECRETARY OF DEFENSE  
1000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1000

MAR 12 2009

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)  
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT AND COMPTROLLER)  
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ENGINEERING)  
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)  
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)  
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Required Signed and Documented Component-level Cost Position for Milestone Reviews

Recent changes to statutory requirements and regulatory requirements in the recent update to DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, make it necessary to strengthen and improve transparency in cost estimation review procedures. As a result, beginning now a signed and documented Component-level cost position will be required for all Milestone (MS) A, B, C and Full Rate Production Decisions for all Major Defense Acquisition Programs (MDAPs). Also, to support statutory certifications and regulatory requirements the Component must fully fund to this cost position in the current President’s Budget Future Years Defense Program (FYDP), or commit to full funding of the cost position in the next President’s Budget FYDP, with identification of specific offsets to address any funding shortfalls that may exist in the current FYDP. More specifically, we expect the Deputy Assistant Secretaries of the Military Departments for Cost and Economics to sign for the Component-level cost position. We also expect the Service Acquisition Executive and the Chief Financial Officer to endorse and certify that the FYDP fully funds the program consistent with the component cost estimate.

The OSD Cost Analysis Improvement Group (CAIG) is currently updating DoD 5000.4-M, *DoD Cost Analysis Guidance and Procedures*. Among other changes, the update to DoD 5000.4-M will address the new milestone decision authority certifications required in accordance with 10 United States Code, Section 2366, for MS A and MS B approvals. The update will also address modified requirements for preparation of cost



*Component-level Cost Position = Service Cost Position*

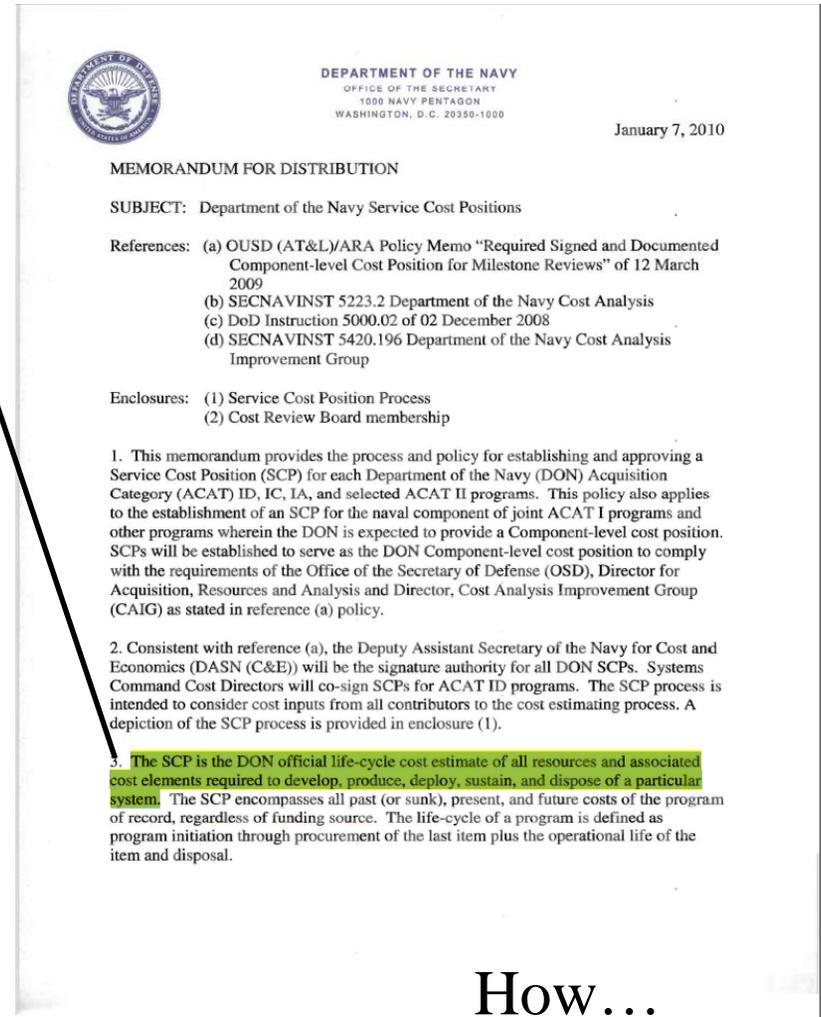
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# Service Cost Position ASN (RD&A) and ASN (FM&C) Guidance

- Department of the Navy Service Cost Positions, 7 January 2010
  - DON official Life-Cycle Cost Estimate (LCCE) of all resources ...regardless of funding source.
  - **Who?**
    - All ACAT I programs,
      - Selected ACAT II programs
  - **When?**
    - MS A, B, C and full-rate production decisions
    - When an APB is updated/established
    - Updated for non-MS Gate Reviews
    - DASN (CE) is SCP Signature authority

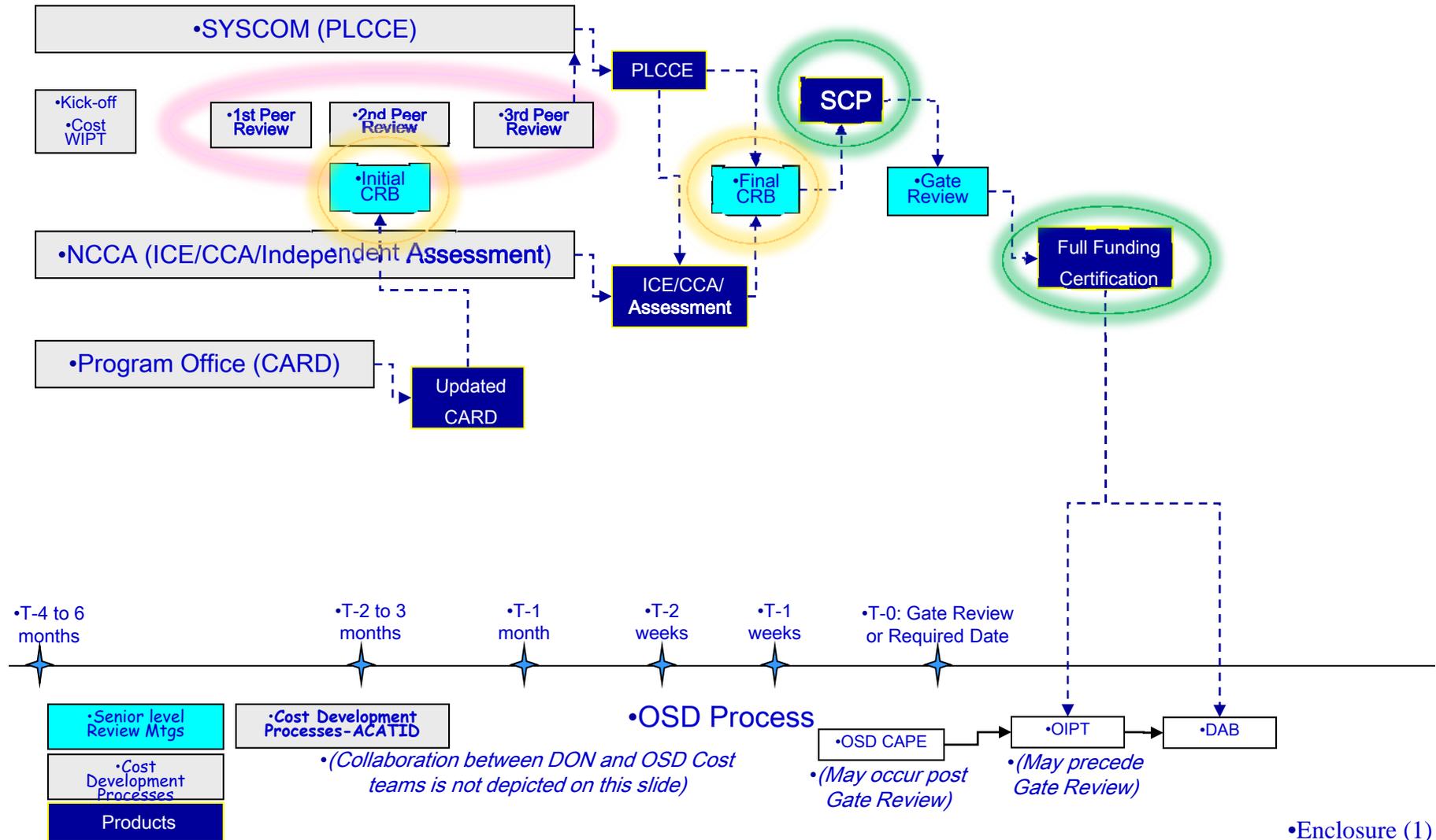


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# DON Service Cost Position Process



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# Peer Reviews

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- **SYSCOM-owned processes**
  - Internal reviews for accuracy, quality, thoroughness
    - Each SYSCOM manages these differently!
- **DON Policy Expectations (what is required?)**
  - 3 Peer Reviews required
    - SYSCOM and NCCA concur on schedule
  - Discussion of the program schedule and acquisition strategy
  - Estimate ground rules and assumptions
  - Detailed system and technical baseline description
  - CARD review
  - Detailed WBS/CES including definitions

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# Peer Reviews

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- **DON Policy Expectations (continued)**
  - Comprehensive walk-throughs for:
    - Working cost model
      - Methodologies
      - Input variables
      - Assumptions and inputs used in outside (i.e. commercial, or government) models
      - Supporting data and data sources
    - Risk/uncertainty approach
      - Methodologies used in the working cost model
      - Incorporation of technical and schedule uncertainty
    - Discussion of the estimate
      - Phasing methodologies and assumptions

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# Cost Review Boards (CRB)

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- **CRBs bring stakeholders together to understand the SCP before /s/**
- **Two CRBs within the SCP process**
- **Initial CRB (“scope, assumptions, baseline”):**
  - 2 to 3 months prior to Gate Review (or due date)
  - Review technical and programmatic baseline that forms the basis for the program’s LCCE (CARD Review)
  - PM presents an overview of his/her program, including technical, schedule, cost and acquisition risks
- **Final CRB (“results, risk, compare to budget”):**
  - 1-2 weeks prior to Gate review or SCP due date
  - Review of draft SCP – SYSCOM presents LCCE and NCCA presents assessment results (ACAT ID) or ICE/CCA results (ACAT IA/IC).

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# CRB Membership

- DASN(C&E) (Chair)
- DUSN(BO&T) (former OPA)
- FMB
- DASN (acquisition)
- PEO
- ASN(RD&A) CHSENG
- SYSCOM Cost Director
  
- DON CIO
- OPNAV N80, N8F, N15, N4
- OPNAV N2/N6
- HQMC Director Programs
- HQMC Director Fiscal
  
- DASN (M&B)

## Cost Review Board Membership

Chair: Deputy Assistant Secretary of the Navy for Cost and Economics.

### Principal members:

For all programs:

- a. Deputy Under Secretary of the Navy, Business Operations and Transformation (DUSN(BO&T))
- b. Deputy Assistant Secretary of the Navy for Budget (FMB).
- c. Deputy Assistant Secretary of the Navy for the acquisition program.
- d. Program Executive Officer (PEO) of the program.
- e. Department of the Navy Chief Systems Engineer (ASN(RD&A) CHENG)
- f. Director of the respective Systems Command (SYSCOM) cost organization.

For all ACAT IA programs and other designated AIS programs:

- a. Department of the Navy Chief Information Officer (DON CIO).

For all Navy programs:

- a. Chief of Naval Operations, Director, Programming Division (OPNAV N80).
- b. Chief of Naval Operations, Director of Warfare Integration (OPNAV N8F).
- c. Chief of Naval Operations, Director, Training and Education (OPNAV N15).
- d. Deputy Chief of Naval Operations (Fleet Readiness and Logistics) (OPNAV N4).

For all Navy ISR, Cyber, C4, EW, Oceanography, Space and other information programs:

- a. Chief of Naval Operations, Director for Information Dominance (OPNAV N2/N6)

For all Marine Corps programs:

- a. Headquarters Marine Corps, Director of Programs Division.
- b. Director, Fiscal Division, Headquarters, United States Marine Corps.

### Advisory Members:

Other program stakeholders will be invited to the board as required, in a non-principal role, depending on the nature of the program and responsibility assigned.

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# Post-CRB Memos

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- **SCP**
  - Summarizes program costs and cost risk
  - For ACAT ID programs, SYSCOM Cost Directors co-sign
  - Signed by DASN (C&E), “TO” ASN(FM&C)/(RD&A)
  - Distributed via Tasker system
- **Full funding memo**
  - Drafted by DASN AO or FMB analyst
  - OSD policy guidance: must fully fund to SCP in the current FYDP
    - Or commit to full funding in the next President’s Budget FYDP
  - Co-Signed by ASN(FM&C) and ASN(RD&A)
    - SCP is an Enclosure to the Full Funding memo

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# SCP Documentation

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- Description of the program scope as it relates to the SCP/costs
- Summary of costs, by appropriation, BY\$ and TY\$
- Scope of risk and uncertainty efforts
- Table of Program Office portion of costs compared to budget (“Spruill chart”)
- Risk Curves (S-Curves) (total and Program Office’s)
- CRB Attendance List

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# SCP Process Discussion Items

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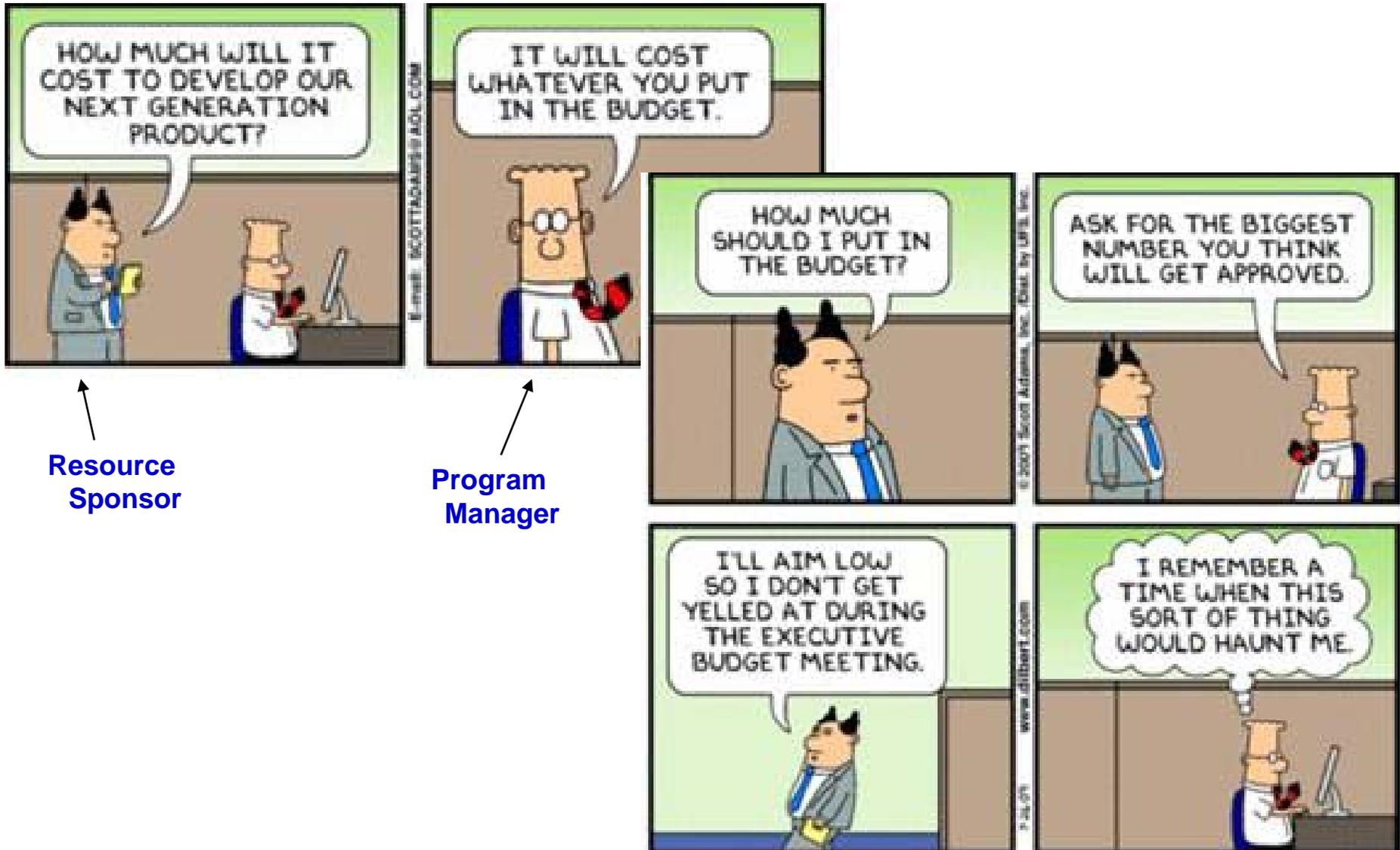
- Peer Review standards, compliance, open information sharing
- What is required in the process, and when, and to what detail?
- Lead time required in process steps, vs. changes/churn to program
- Read-aheads and timeliness, ability to digest information by CRB
- Linkage between SCP and PPBE/Requirements (R3B) processes
  - Reconciling between SCP and BES and FF memo
- DON-sensitive info in the Memo, vs. release to OSD
- Perspectives: PM, SYSCOM, NCCA, FMB, N80, N8 sponsor, N4, N1, DASN, OSD CAPE, MDA
  - Perspectives met via the SCP?

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# Questions?



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# Back-Up Slides

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# Notional Analysis Schedule

Task	Responsibility	Timeline *
Submit Draft CARD	PMO	X
Submit Draft CARD Comments	NCCA	X + 14 days
Submit Formal Data Request	NCCA	X + 19 days
Conduct Kick-Off Meeting	PMO/NCCA	X + 20 days
Conduct Kick-Off Technical Review Board (TRB)	NCCA	X + 26 days
Submit Penultimate CARD	PMO	X + 34 days
Submit Penultimate CARD Comments	NCCA	X + 46 days
Submit Final CARD/Data/Draft PLCCE	PMO	X + 67 days
Conduct Midpoint TRB	NCCA	X + 91 days
Conduct Initial Reconciliation	PMO/NCCA	X + 93 days
Accept Final CARD/Data Submission	NCCA	X + 98 days
Conduct Interim Reconciliation	PMO/NCCA	X + 119 days
Complete Technical Baseline Estimate (TBE)	PMO/NCCA	X + 131 days
Conduct Final Reconciliation	PMO/NCCA	X + 133 days
Perform Risk Analysis	PMO/NCCA	X + 137 days
Perform Funding Assessment	PMO/NCCA	X + 140 days
Complete Draft Service Cost Position	PMO/NCCA	X + 143 days
Conduct Final TRB	NCCA	X + 145 days
Conduct DON Cost Review Board (CRB)	PMO/NCCA	X + 159 days
Complete Final Service Cost Position	PMO/NCCA	X + 170 days
Submit Final NCCA Results (Memorandum)	NCCA	X + 173 days
Conduct Sufficiency Gate Review	ASN RD&A	X + 180 days

\* Calendar Days

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# Typical Cost Estimating Activities

- **Data Collection & Initial Review**

- **Data Analysis & Model Creation**

- **Estimate Finalization**

Task
Collect Program CPRs and Actual Data (1921s, BOMs)
Review IBR/EVM and IMS
Contractor Site Visits
Collect Technical Specs & Requirements Information
Review of Program Documentation
CARD Review and Comment Adjudication
Collect Analogous Historical Data
Review Documentation and Costs on Historical Programs
Normalize Historical Data
Adjust/asses Technical Baseline
Assess Schedule and Events
Review O&S and Logistics Concepts
Develop Models and Spreadsheet
Adjust for Inflation
Conduct Sensitivity Analysis
Adjust for Risk
Document Results
Peer/Supervisor Reviews

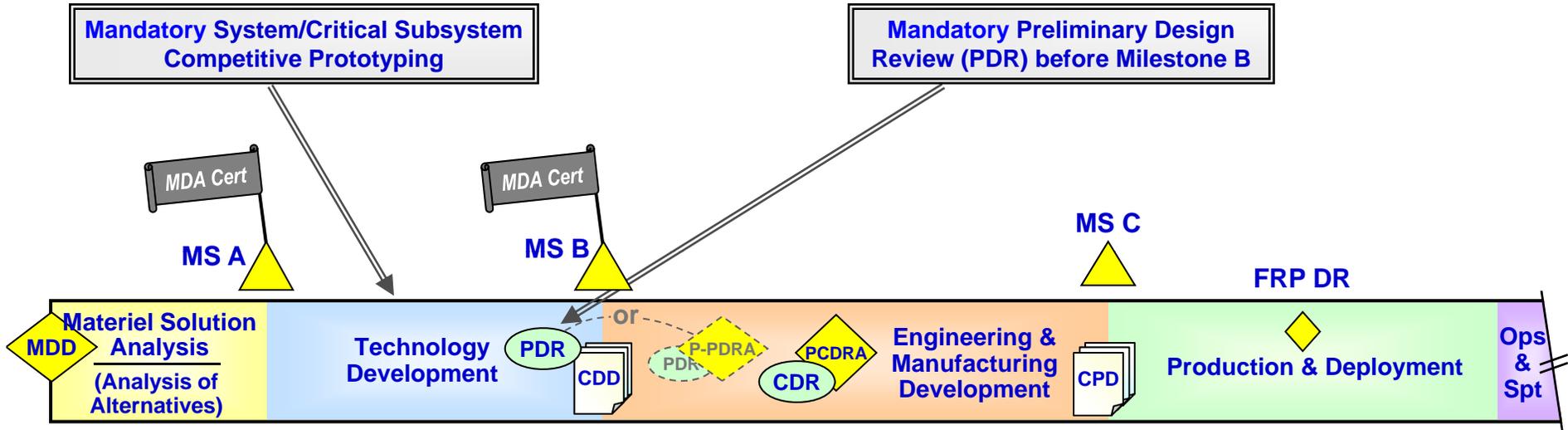
Some tasks occur in parallel throughout the estimating process (e.g., documentation & peer/supervisor reviews)



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# DoD Acquisition in WSARA 2009

## (Statute Applicable to Major Defense Acquisition Programs)



- Director of Cost Assessment and Program Evaluation develops and approves AoA study guidance
- Dir, SE, reviews and approves the Systems Engineering Plan
- Dir, DT&E, reviews and approves the DT&E plans in the Test and Evaluation Strategy and the Test and Evaluation Master Plan
- DDR&E independently reviews, assesses, and reports on the technological maturity and integration risk of MDAP technologies
- MDAP Redefined:
  - ... eventual total expenditure for RDT&E of more than \$365M
  - ... eventual total expenditure for procurement, including all planned increments, of more than \$2.19B

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