**TRANSITION TOPIC:**
Review of Acquisition Program Costs

**TASK:** Review historical data on cost growth in Major Defense Acquisition Programs (MDAPs) and look for trends that might explain the source of this growth. Recommend best practices and management tools that could help alert the Department’s senior leadership to potential program cost growth and that could help contain otherwise avoidable cost growth.

**TASK GROUP:**
Michael Bayer (Chair)  Pierre Chao
Kelly Van Niman (Executive Secretary)
### Report Documentation Page

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. **REPORT DATE**  
   23 OCT 2008

2. **REPORT TYPE**

3. **DATES COVERED**  
   00-00-2008 to 00-00-2008

4. **TITLE AND SUBTITLE**  
   **Transition Topic: Review of Acquisition Program Costs**

5. **AUTHOR(S)**

6. **PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)**  
   Defense Business Board, 1155 Defense Pentagon, Washington, DC 20301-1155

7. **SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)**

8. **PERFORMING ORGANIZATION REPORT NUMBER**

9. **DISTRIBUTION/AVAILABILITY STATEMENT**  
   Approved for public release; distribution unlimited

10. **NUMBER OF PAGES**  
    9

11. **NAME OF RESPONSIBLE PERSON**

12. **SUPPLEMENTARY NOTES**

13. **ABSTRACT**

14. **SUBJECT TERMS**

15. **SECURITY CLASSIFICATION OF:**
   - a. REPORT: unclassified
   - b. ABSTRACT: unclassified
   - c. THIS PAGE: unclassified

16. **LIMITATION OF ABSTRACT**  
   Same as Report (SAR)

17. **NUMBER OF PAGES**  
    9

18. **NAME OF RESPONSIBLE PERSON**

---

*Standard Form 298 (Rev. 8-98)*

Prepared by ANSI Std Z39-18
ISSUE:

- Total acquisition budget for all Major Defense Acquisition Programs has more than doubled in the past seven years – from $783B to $1,702B
  - 44% of that growth ($401B) caused by program cost growth
  - 36% of that growth ($328B) caused by changes to program baselines
  - Rising program costs increases unit costs – Augustine’s Curve, limiting ability to recapitalize the force

IMPORTANCE:

- Acquisition program cost overruns consume money that otherwise could be used to increase quality/quantities of systems warfighters need now and in the future
- The Secretary of Defense will need all available resources invested as effectively as possible in order to maintain operational readiness
- It is as much a cultural problem as a management issue, and in times of budget stress, could threaten the core of the institution.
- Thus only the Secretary’s personal involvement can reverse this trend, he can not delegate it to the Deputy or the AT&L
**Major Defense Acquisition Program Portfolio: 1978 - 2007**

**2007 Year $ (B)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Eng., Est., Schedule Cost Changes</th>
<th>Quant. and Support Cost Changes</th>
<th>Baseline Changes</th>
<th>Program Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-1986</td>
<td>13%</td>
<td>3%</td>
<td>21%</td>
<td>-</td>
<td>13%</td>
</tr>
<tr>
<td>2000-2007</td>
<td>8%</td>
<td>13%</td>
<td>-</td>
<td>7%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Overall 30 year MDAP Growth Rate**: 4%

**Recent Buildup**

- **1979-1986**: 245% Spending Growth
- **2000-2007**: 170% Spending Growth

**Recent buildup is characterized by fewer new programs, increases in existing baseline budgets, and increases in engineering and estimating costs**

* Figures reflect Compound Annual Growth Rates (CAGRs)

** Includes all changes between a program’s initial ‘baseline estimate’ and its current ‘baseline estimate’ (as of 2Q 2007 SAR); BMDS engineering cost changes were reclassified as ‘baseline changes’ due to unique program budgeting process

Source: OUSD(C) Study, DoD Selected Acquisition Reports, 1978 – 2007 (2nd Quarter)

Numbers may not add due to rounding

October 23, 2008

(Dollars in Billions)

Total acquisition budget for all Major Defense Acquisition Programs (MDAP) more than doubled from $782.5B to $1,702.0B in the past 6+ years.

MDAP Budget Growth 2000-2007(Q2)

+$919.0

+$401.0 – Program Cost Growth

+$328.0 – Baseline Changes*

+$190.0 – New Programs

* Includes all changes between a program’s initial ‘baseline estimate’ and its current ‘baseline estimate’ (as of 2Q 2007 Service Acquisition Reports (SAR)); BMDS engineering cost changes were reclassified as ‘baseline changes’ due to unique program budgeting process.

Numbers may not add due to rounding.

Source: DoD Selected Acquisition Reports, 2000 – 2007 (2nd Quarter)
2000 – 2007 Major Defense Acquisition Program Portfolio Cost Growth by Category

(Dollars in Billions)

$401B in Overall Program Cost Growth

Estimating, engineering, schedule changes equal 84% of program cost increases

Source: DoD Selected Acquisition Reports, 2000 – 2007 (2nd Quarter)

Numbers may not add due to rounding

October 23, 2008
2000 - 2007 Major Defense Acquisition Program Portfolio
Cost Growth by Program  (Dollars in Billions)

Cost growth in Only Five Programs accounted for $206B or 51% of the total

* Includes all changes between a program's initial 'baseline estimate' and its current 'baseline estimate' (as of 2Q 2007 SAR); BMDS engineering cost changes were reclassified as 'baseline changes' due to unique program budgeting process:
** Combines 3 Chemical Demilitarization programs into 1 to match earlier SARs
Numbers may not add due to rounding

Source: DoD Selected Acquisition Reports, 2000 – 2007 (2nd Quarter)
DISCUSSION:

- The total acquisition budget for all Major Defense Acquisition Programs (MDAP) has more than doubled in the past seven years (from $783B to $1,702B)

- Of the approximately $919B in increased portfolio budget from 2000 – 2007, nearly half ($401B) is for program cost growth over the baseline. The other half is for new programs or baseline changes (any change between a program’s initial baseline estimate and its current or final baseline estimate)

- Estimating, engineering, and schedule changes are responsible for over 80% of the cost growth from 2000 to 2007

- The true nature of associated cost growth is lost once re-baselining decisions occur, managerial insight is lost

- Five programs accounted for over 50% of the program cost growth over the baseline – Future Combat System (Army), Joint Strike Fighter (Navy / AF), SSN 774 (Navy), Chemical Demilitarization (Army), and Evolved Expendable Launch Vehicle (EELV)
DISCUSSION:

• This is not just an acquisition problem – the requirements, budget and acquisition processes are all drivers

• Fundamental to this problem is an atrophy of the acquisition workforce (skills, numbers, capabilities)
RECOMMENDATIONS

1. The Secretary must work with AT&L and the Service Secretaries to drive a targeted reversal of this trend which addresses the previously listed key drivers of program baseline changes and program cost growth
   a) Maintain metrics for each re-baselining decision to track/monitor drivers of growth
   b) Focus on fundamental drivers not on “fixing” symptoms, including the human capital issues
   c) Set and then propagate the cultural change necessary to reverse behavior
   d) Establish non negotiable objectives and supporting metrics; hold the leadership accountable for achieving them

2. Hold industry executives accountable to the same objectives and supporting metrics as DoD
   a) Initiate dialogue with industry independent of the requirements process to minimize future program baseline and estimate changes

3. Develop joint management tools to fix and manage the authority, responsibility, incentives and accountability across the relevant parts of DoD and industry

Reference DBB Report FY08-3
"Strategic Relationship Model between DoD and Industrial Base” for greater detail