



ACQUISITION,
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THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

INFO MEMO

March 31, 2009, 3:30 p.m.

FOR: SECRETARY OF DEFENSE
DEPUTY SECRETARY OF DEFENSE

FROM: John J. Young, Jr., USD(AT&L)

SUBJECT: Cost Performance on Defense Acquisition Programs

The Government Accountability Office (GAO) yesterday issued their latest analysis of cost performance on defense acquisition programs. I have attached an earlier memo that highlights the relatively positive comments made in the new GAO report about progress in management of defense programs. (Tab A)

The new GAO report continues to sensationalize the assessed cost growth of \$296 billion on 96 programs. This number has been cited by many people as a condemnation of the defense procurement process. I have analyzed the components of this GAO number, and I would suggest that the number is misleading, out-of-date, and largely irrelevant to the current management of DoD programs.

First, the GAO analysis is grounded in a dissimilar comparison of programs. Only 58 programs are common between the 2003 and the 2008 portfolios. The GAO analysis highlights 77 programs producing \$183 billion of cost growth in the 2003 portfolio and 96 programs producing \$296 billion of cost growth in the 2008 portfolio. The GAO states that the "cumulative cost growth is higher than it was five years ago." However, 20 programs in the 2003 portfolio are not included in the 2008 portfolio. More importantly, 39 new programs were included in the 2008 portfolio which were not included in the 2003 portfolio. Thus, a total of 59 programs moved into or out of the portfolio between 2003 and 2008. Therefore, it is not possible to draw meaningful conclusions about trends or performance by comparing these dissimilar portfolios.

Now, I would like to review the 96 programs in the 2008 portfolio in greater detail. GAO has acknowledged that the \$296 billion number is driven by older programs. Indeed, 41 of the 96 programs in the 2008 portfolio received initial milestone approval for development prior to 2001, and these programs are responsible for roughly \$189 billion of cost growth (Table 1). Further, 12 of the programs in the 2008 portfolio received development milestone approval over 15 years ago, and these programs are



responsible for roughly \$69.8 billion of cost growth. Defense programs formulated and initiated in the 1980's and 1990's do not really provide a valid basis for assessing the current state of defense acquisition programs or the defense acquisition process. Recent DoD policies have required full funding of defense acquisition programs to independent cost estimates, a practice which should avoid the unrealistically low initial cost estimates at program initiation which are largely reflected in the GAO's cost growth over original program baselines. Indeed, GAO noted that "DoD's performance in some of these areas is driven by older programs, as newer programs, on average, have not shown the same degree of cost and schedule growth."

Next, I would like to summarize my analysis of the 96 programs in the 2008 portfolio. There are limitations to trying to assign each one of the 96 programs to a single category. Nonetheless, I have sought to group each program in one of four categories to provide a simple analysis, at a level of detail below the aggregated \$296 billion of cost growth, to help clarify the negative impression of this large number. Further, DoD records only allow me to account for a cumulative cost growth of \$278 billion, not \$296 billion. GAO will not share its numbers with the Defense Department, so I can not mathematically reproduce their results. Also, while the selected Acquisition Report includes 96 programs, the GAO report explains that 91 programs were analyzed. DoD treats 3 programs as each having 2 separate baselines (JSOW, NAVSTAR GPS and Patriot MEADS). Thus, the following analysis reflects 94 programs.

I previously wrote you a memo assessing 41 major defense programs. I will use a similar framework to review the 96 programs and the \$278 billion of higher cost. In summary –

- \$95.7 billion associated with 18 programs is a result of increased procurement quantities over the original program baseline. Higher costs due to increased quantities do not constitute true cost growth and do not reflect a problem with defense acquisition processes or defense industry. (Table 2)
- \$72.2 billion associated with 9 programs is a result of lowering procurement quantities and slowing program execution. Higher costs due to slower procurement and quantity reductions as a result of budget cuts and program stretches do not constitute true cost growth and do not reflect a problem with defense acquisition processes or defense industry. (Table 3)
- A negative \$57 billion of "cost growth" is attributable to 39 programs. 27 of these programs are being completed within 10% of their original cost baseline. As I have often expressed to you, our goal is to have no cost growth. However, this small amount of cost growth is a result of a number of factors: DoD weapons programs frequently use exotic materials, include a significant amount of software,

are purchased under limited competition, are driven by excessive DoD certification requirements, and are subject to annual budget fluctuations imposed by the Defense Department and the Congress. Limited cost growth under these circumstances would not necessarily reflect a failed DoD acquisition process. The larger, negative number (cost reduction) is primarily attributable to several programs which experienced quantity reductions and were still executed with good unit cost control – generally a result of buying the lower quantity efficiently and not stretching the program. (Table 4)

These three categories (increased quantities, reduced quantities, and small (10%) growth) cumulatively account for a net cost growth of \$110.9 billion, or 40%, of DoD's \$278 billion figure and 66 of the 96 programs in the portfolio. Again, these programs do not constitute legitimate cost growth that can be attributed to a failed defense acquisition management process. Indeed, this data makes clear that 66 programs have performed reasonably well, sometimes even in the face of budget churn and quantity changes. Thus, I would reiterate the view that the \$296 billion is a sensational number that is misleading, out-of date, and irrelevant to the current DoD procurement process.

Finally, I have identified a group of programs which have not performed to their initial cost estimate.

- \$166.6 billion (net) of cost growth is attributable to 28 programs which experienced cost growth and the dominant feature was not quantity increases or decreases. (Table 5)

Some of these programs, like the Joint Strike Fighter (JSF), CH-47F, C-17A, SBIRS High, and the Black Hawk Upgrade have been impacted by quantity changes. However, our judgment is that quantity changes were not the dominant factors in the cost growth on these programs. The dominant factors in the “cost growth” on these programs were excessively low initial cost estimates, fluid requirements, optimistic schedules and assumptions, excessive application of government certification standards, initiation of development with immature design or technology, and poor performance by government and industry teams. Again, some of these factors are totally out of the control of acquisition program managers and do not necessarily indicate a broken defense acquisition management and oversight process.

Let me offer one more alternative view of the data on the 96 defense acquisition programs. Eight programs (DDG-51, Future Combat Systems (FCS), JSF, V-22, C-17, Virginia Class Submarine, C-130J, and the Family of Medium Tactical Vehicles) account for \$220.4 billion, or 79%, of the \$278 billion in DoD-measured cost growth. Six of

these programs were started in or before 1996. For the DDG-51 and C-130J programs, the cost change was driven by quantity increases, accounting for \$59.9 billion of the \$278 billion total. In the other cases, the entire national enterprise – acquisition, requirements, budgeting and funding, and industry – performed poorly on these programs, resulting in a cost growth of \$160.5 billion – a disturbing 36% over their original estimates. These programs, as well as many others on the list, have failed to deliver to their cost baselines, and this requires us to review the reasons and take corrective actions to prevent any reoccurrence. These eight programs, and the entire data set, make clear the importance of initiating programs with a solid analytical foundation, initial systems engineering, realistic cost estimates, and rational requirements. The remaining 86 programs account for a net \$57.1 billion of cost growth on a base of \$741.8 billion – 7.7% average cost growth.

To be clear, every program on the list has been impacted to varying degrees by excessively optimistic pricing, annual budget churn, significant requirements changes, and excessive application of Service technical certification authority. Further, DoD programs face unique challenges in terms of limited competition, specialty materials (which have increased 2 to 5 times in price in recent years), high software content, and demanding technology.

In light of these facts, I do not think it is possible to conclude that the DoD acquisition process alone is broken. It is crystal clear that programs must be started on a solid foundation of knowledge with realistic cost estimates and requirements. I would suggest it is equally clear that many factors outside the DoD acquisition process are significant contributors to the poor performance of a number of acquisition programs, specifically the annual budgeting and funding process and the requirements process. The DoD budget is generally over-programmed, seeking to buy more programs than DoD can afford and thus underfunding all programs and preventing efficient execution.

I completely agree that there is significant room for improvement. We have implemented a wave of changes seeking to make these improvements – budgeting to independent cost estimates, questioning requirements, implementing configuration steering boards, issuing acquisition decision memorandums which fix requirements and guide contract strategies, conducting enhanced oversight, establishing program management agreements, requiring competitive prototyping, completing independent program reviews, and planning material development decisions at program initiation. Over time, these policies have the potential to improve the acquisition team's performance on defense development and procurement programs. The defense acquisition team cannot successfully control or reduce costs if requirements regularly change, budgets annually churn, independent cost estimates are ignored, quantities are

constantly varied, military Service technical certification standards are excessively applied, and programs are formulated on viewgraphs in program budget reviews.

No cost growth is acceptable as any cost growth comes at the expense of the opportunity to buy additional capability for the warfighter or to lower costs for the taxpayer. However, I think it is necessary to look more carefully at the highly publicized \$296 billion number which has been used to condemn the defense acquisition process. This detailed review makes clear that it is unfair to characterize only the current defense acquisition process as broken based solely on the misleading and out-of-date \$296 billion number cited by GAO.

COORDINATION: NONE

Attachments:
As stated

cc:
Secretaries of the Military Departments
Chairman of the Joint Chiefs of Staff
Under Secretary of Defense (Comptroller)
Vice Chairman of the Joint Chiefs of Staff
Service Acquisition Executives
Director, Program Analysis and Evaluation

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