

The Kaminski Initiative

Our Most Significant Piece of Unfinished Business in Reforming the Defense Acquisition Process

DANIEL P. CZELUSNIAK • PHILIP D. RODGERS

Greek mythology relates the story of Sisyphus, son of Aeolus (the king of Thessaly) and founder of Corinth, who was infamous for betraying the secrets of the gods. It's said that Sisyphus saw Zeus carry off the beautiful maiden Aegina to the island of Attica (in the Saronic Gulf) where she later gave birth to a son, called Aeacus, who eventually became monarch of the island. When Sisyphus revealed what he had witnessed to Aegina's father (the river god Asophus), Zeus became so enraged he called on Hades (lord of the dead and ruler of the nether world) to intervene and punish Sisyphus.

In the realm of the dead, Sisyphus was compelled to roll up a steep hill, a large stone, which immediately tumbled back down when he reached the top. He was condemned to repeat the process for eternity. His punishment

was, and is today, depicted on many Greek vases as a naked man pushing a boulder.

This is not unlike the condemnation program managers have to endure as they struggle to roll the "stone" of program cost reduction up the "hill" of seemingly endless "taxes" and funding cuts that force continuous program restructuring. Even though we have made significant progress reforming the defense acquisition process in the past few years, resulting in reduced costs and other efficiencies, we are still losing ground to the problem of cost growth due to the lack of program stability (Figure 1). This is not a new problem. Virtually every major study of the defense acquisition process in the last two decades has identified the lack of program stability as a key ingredient in the high cost of defense systems.

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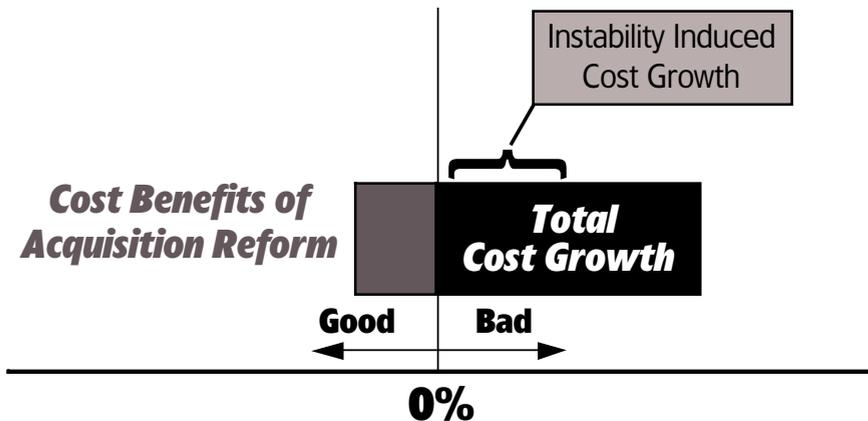


Figure 1. **Benefits of Reform Pale in Comparison to Cost Growth from Instability**

Czelusniak is the Director, Acquisition Program Integration, Office of the Under Secretary of Defense for Acquisition and Technology.

Rodgers is a senior operations research analyst on the staff of the Office of the Under Secretary of Defense for Acquisition and Technology. A former Naval officer, Rodgers' career experience includes a variety of positions dealing with long-range planning and programming, weapon system cost analysis, and personnel planning. He holds a B.S. in Biology from the University of Illinois and an M.S. in Operations Research Analysis from the Naval Post Graduate School. Rodgers was co-chairperson of the Acquisition Program Stability Task Force in the Quadrennial Defense Review.

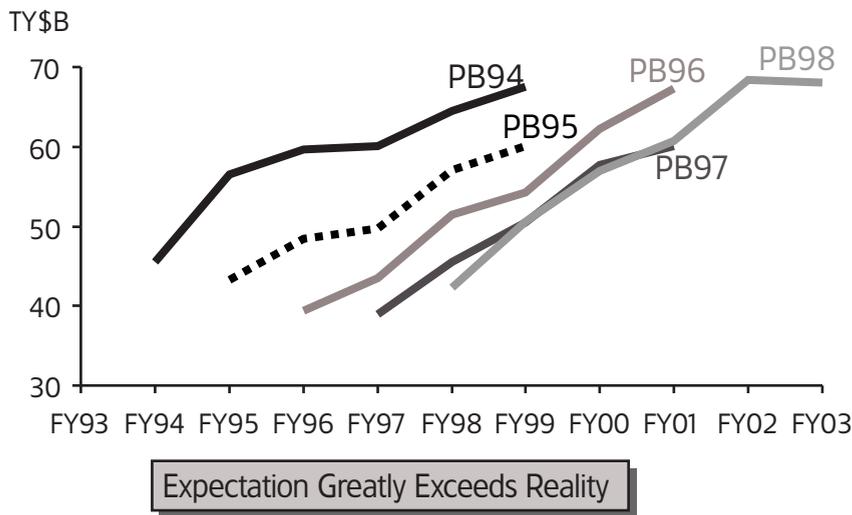


Figure 2. **The Credibility Problem: DoD Procurement Funding — President's Budget Projections**

Perspective, Implications, and the Quadrennial Defense Review

Historically, in comparison to estimates at Milestone II, major weapon systems have experienced approximately 25-percent cost growth at program completion. The root causes of this growth are difficult to precisely quantify, but internal programmatic factors such as simple underestimation, unanticipated technical problems, and requirements changes due to changing threats are certainly recognized contributors. However, the predominant cause can be traced to the heart of the program stability issue.

It has been estimated that as much as half of the cost growth in major weapons systems is due to nothing more than funding instability. That is, the reallocation of funding to other near-term priorities external to a program. These kinds of repeated funding excisions ultimately lead to sizable program cost growth. This is growth which contributes no added value whatsoever to the system being developed/produced.

One analysis estimated that the Department of Defense loses approximately \$5 billion per year in investment program content due to cost growth. In real terms, this represents the value of material we were unable to acquire for our warfighters. Without a

fundamental altering of resource management practices within the Department to confront this problem, these losses should be expected to continue.

The specter of a perpetual drain on investment accounts was what led Dr. Paul G. Kaminski to adopt "program stability" as his number one, near-term acquisition reform priority, and why he considered it the most significant piece of unfinished business in his recently concluded tenure as the Under Secretary of Defense for Acquisition and Technology. Viewed at the macro level, funding instability is an endemic Department problem as documented by a retrospective look at recent Future Year Defense Plans (FYDP) (Figure 2). Despite repeatedly forecasting sizable increases in future

procurement budgets, we have consistently failed to realize those expectations.

This has produced the so-called "advancing trough" in procurement funding (Figure 3). The trend over the past several years has been for the trough to shift to the right each year as the Department postpones the long-awaited modernization and recapitalization of our armed forces. As disruptive as this trend has been to individual program execution, its existence has created an even more disturbing credibility gap with the public and our elected officials in the Congress. Our promises of increased funding for procurement in a fiscally constrained environment simply do not ring true.

When the Quadrennial Defense Review (QDR) was launched several months ago, there was a heavy emphasis on a national defense strategy, force structure requirements to meet that strategy, and the proper mix of systems for our armed forces. An important objective of the QDR was reducing costs in the support structure to free up resources which could be applied to increase funding available for investment. However, it was also recognized that the QDR provided an opportunity to confront, even in an environment of reduced budgets, the long-standing problem of funding instability. To ensure this specific issue was comprehensively addressed, a special task force was chartered to define

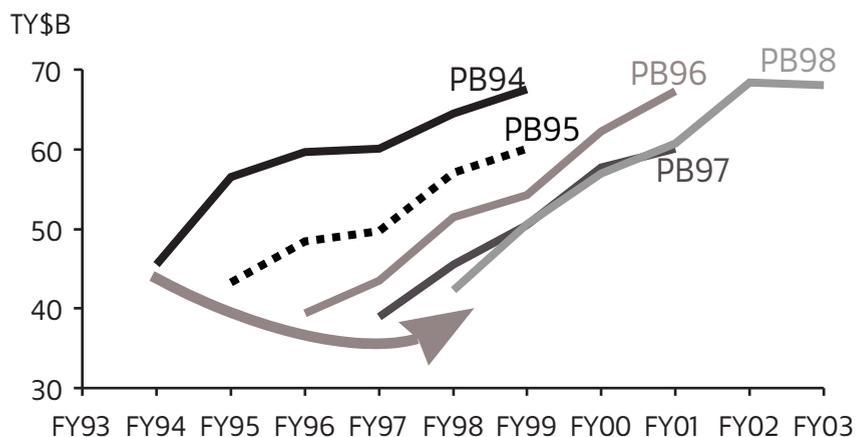


Figure 3. **The Procurement Trough**

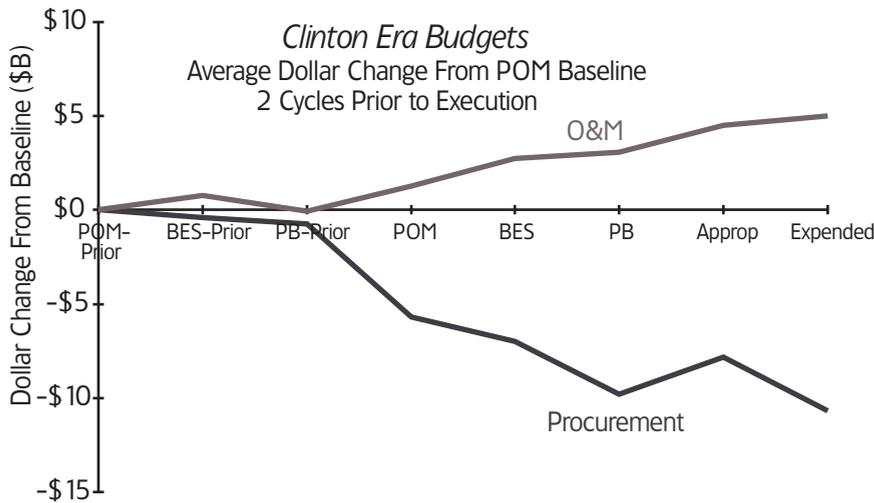


Figure 4. **The Overall Migration Problem: DoD O&M and Procurement Planning vs. Outcome**

the problem, identify the basic causes, and outline reasonable measures to alleviate the problem.

Budgetary Uncertainty and Practical Limitations

Funding instability is largely a manifestation of the uncertainty and limitations built into our current planning process. In order to manage the defense enterprise, we develop plans and budgets for programs several years in advance of actually receiving an appropriation from the Congress. As a result, the FYDP is predicated on tenuous assumptions of stable forecasts for total obligational authority over time, and consistent priorities for national security and operational commitments of our forces. In addition, defense weapon systems are on the leading edge of technology, making it difficult to forecast with absolute certainty what risks new technological advancements entail, and the impact those risks might have on the systems being acquired.

When any of the basic parameters (i.e., obligational authority, priorities, or technological risk) vary from expectations, thus adversely affecting one program, instability can be (and usually is) introduced in other programs in order to accommodate the adverse effect. As a result, “innocent” programs suffer, often enduring signifi-

cant restructuring of painstakingly detailed programmatic planning to offset the induced instability, on the altar of affordability. A recent analysis of the F-22 program showed that these types of restructuring have a 3:1 payback cost. That is, for every dollar taken from the program for short-term affordability reasons, the total cost of the program increased by \$3.

The problem is exacerbated by an implied policy that limits explicit programming and budgeting for reserves which could “buffer” programs from these destabilizing effects. The pragmatic concern associated with the vulnerability of reserves to reduction by individuals (at all strata of the Federal Government) charged with balancing budgets, and the question of whether such reserves might actually negatively influence the “natural” pressure to continually seek effective cost-reduction measures, are valid issues which form the foundation of resistance to reserves as a simplistic, wholesale solution to the instability problem.

Migration = Funding Instability

Funding instability is created when fiscal resources migrate from previously planned levels which have been programmed or budgeted for program execution. Understanding the character of the migration is therefore key to identifying a solution(s) to the funding

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DANIEL P. CZELUSNIAK, DIRECTOR, ACQUISITION PROGRAM INTEGRATION, OUSD(A&T), BRIEFED THE SUBJECT OF PROGRAM STABILITY AT THE 5TH SEMI-ANNUAL PEO/SYSCOM COMMANDERS/PM CONFERENCE, HOSTED BY DSMC AT ITS MAIN FORT BELVOIR, VA., CAMPUS, APRIL 22-23, 1997.

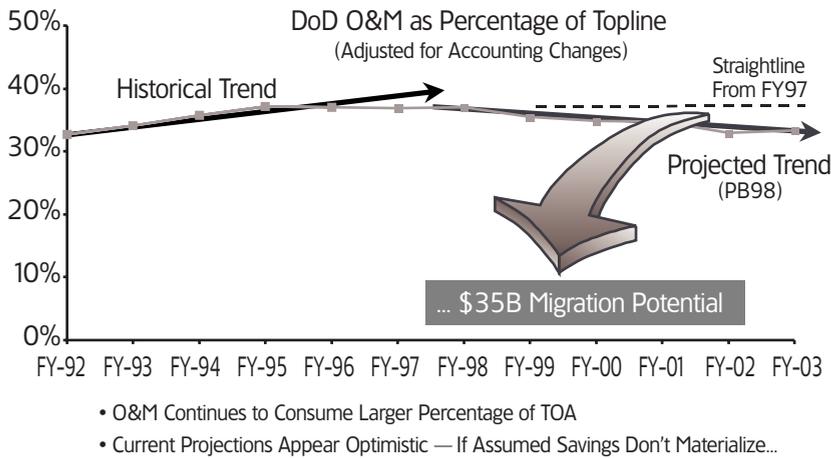


Figure 5. **Future Migration Risk**

instability problem. Clearly, migration of funds from one (lower-priority) investment program to another to solve problems of cost growth generated from within the higher-priority program, is one characteristic pattern contributing to instability.

However, the primary source of funding instability finds itself in the migration of funds from long-range modernization requirements to near-term operating and support (O&S) requirements during the process of building and executing the budget. This is a recurring pattern and is due, in part, to the complexities (e.g., working capital fund accounts) and unknowns (e.g., operational contingencies, priority changes, etc.) present in forecasting O&S requirements. Inaccurate forecasts almost always result in higher-than-anticipated costs.

A significant portion of the migration to O&S requirements is due to unrealized

projected savings and assumed efficiencies related to infrastructure and/or process improvements. The savings projected from closing bases and facilities through the Base Realignment and Closure process are a good example. Because the closure costs have proven to be higher than originally anticipated, the savings have accrued at a much slower rate. Our experience is replete with similar examples of optimistic O&S savings projections, unfulfilled.

Another factor contributing to the migration problem is the fact that the desire for increased modernization, and our ability to definitively quantify and defend those needs, lead to high (some might argue unrealistic) expectations of out-year resources available for investment. But in a resource-constrained environment, these increased out-year expectations put pressure on the O&S accounts and cause an artificially induced depression of the O&S requirements (which we usually cannot

quantify or defend as well as the modernization requirements) in the out-years.

To the extent O&S costs eventually turn out to be higher than anticipated, for any of the reasons noted above, we typically “pay the bill” by deferring quantity procurements and/or extending schedules in investment programs. This, in turn, drives up the cost of those programs and encumbers out-year resources previously planned for other efforts. This counterproductive cycle (i.e., over-programming investment and under-programming O&S) is repeated with amazing consistency, year after year.

The persistence and size of the migration from investment to O&S requirements in every phase of the planning, programming, and budgeting process is illustrated in Figure 4. The change from a baseline established as the funding level in the first out-year of the FYDP when the Components develop their Program Objectives Memoranda (POM) is depicted. That funding level is tracked over a two-year cycle to the Congressional appropriations and through the execution year. Each of the Clinton-era budgets is averaged to provide a composite picture of the migration patterns.

Current planning continues to reflect a high degree of expectation for reductions in Operations and Maintenance (O&M) funding within O&S accounts. Figure 5 is a plot of O&M funding as a percentage of the defense budget top line. Historically, after being adjusted for various accounting changes over time, an increasing percentage of resources has been devoted to O&M. Yet, we are projecting a trend that is actually expected to invert itself based on the assumptions of the President's FY 98 budget request to Congress.

An optimist might view this as a good news story in that we are aggressively pursuing substantial reductions in O&S costs. However, a skeptic could conclude that we would be doing well just to stabilize this trend at the FY 97

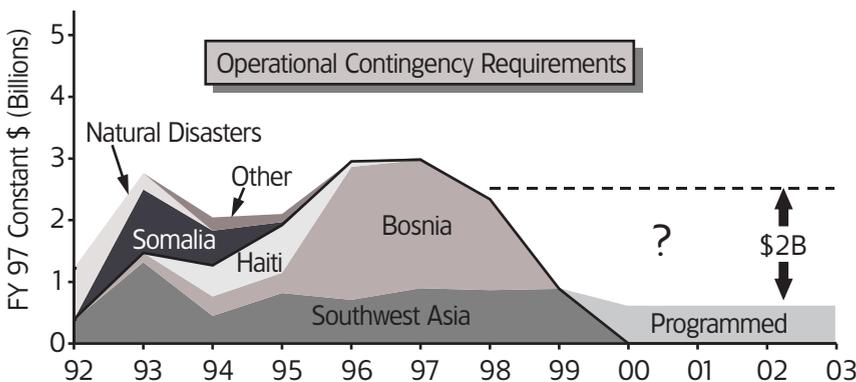


Figure 6. **The Operational Contingencies Problem**

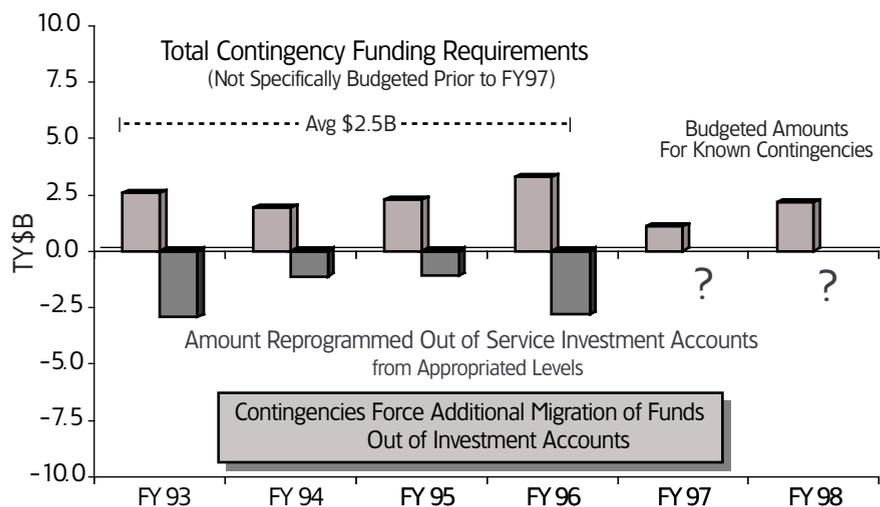


Figure 7. **Investment Programs Pay Contingency Bills During the Year of Execution**

level, let alone reverse it, thus pointing to a potential migration risk of approximately \$35 billion over the FYDP period. The importance (to the stability of our investment programs and the ultimate achievement of our force modernization plans) of being able to achieve these O&S reductions should be evident.

QDR Results and Direction

In recognition of the pattern of migration evident from investment accounts in the past, the principal resource management objectives of the QDR were to understand financial risk in the Department's program plans and devise approaches to manage that risk. The analyses conducted to identify principal sources of migration and determine the implications for future requirements framed the context for making decisions in the QDR. Task force recommendations were in keeping with the long-standing priorities of the Department which emphasize readiness and quality of life for our personnel, while at the same time striving to develop more affordable, long-term modernization and recapitalization programs. Direction resulting from the QDR addressed the key factors contributing to funding instability.

Acknowledgment of Operational Contingency Costs

The costs of unplanned contingency operations, such as our operations in

Haiti, Somalia and, currently, Bosnia, have been central to the funding instability problem in recent years. While none of these overseas commitments could have been predicted with certainty, the fact that funding was not allocated in our long-range programming process for these types and levels of operations did lead to sizable transfers of funding from investment programs to offset their costs. Figure 6 documents the historical level of funding required over the past several years and shows that our anticipated funding in the future is far short of the historical norm.

There is widespread belief that the costs of contingency operations are paid through supplemental appropriations from the Congress. The term supplemental is, in fact, a misnomer. The Department seldom gains any net resources in this manner, since we are normally simply given permission to reallocate resources within our existing top line.

Figure 7 illustrates contingency costs compared to the amounts reprogrammed out of the Service investment accounts during the year of execution. As the data demonstrates, most of the costs of contingencies over the past several years have been borne by reductions in investment programs. A similar pattern emerged again this year as we struggled to pay for the costs of operations in Bosnia.

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Although the QDR task force recommended planning and programming for operational contingencies based on the empirical evidence of the recent past, the Department took a more measured approach, and for valid reasons. That decision was influenced both by the uncertain nature of future operations and our ability to accurately forecast these costs far enough in advance to coherently budget for them. There were also obvious political and diplomatic concerns associated with "planning" to conduct such operations.

The QDR report noted that demands from smaller-scale contingencies should be anticipated in the future. Given that we can expect these types of contingency operations to occur, with their associated costs coming from within existing resources, we should be structuring investment programs in a way that permits a graceful extraction of funding. Thus, if a need arises during the execution year, we have an ability to deal with it, without incurring substantial cost penalty.

Realistic Operating and Support Programming

The QDR analysis of the financial risks in the Department's long-range plans and identification of potential sources of funding instability are illuminating. The migration risk was estimated to be as much as \$10-12 billion per year arising from unprogrammed bills, unrealized savings, and new program demands. This degree of migration, if unchecked, would have left us far short of satisfying the requirements of the strategy and investment priorities envisioned in the QDR.

To partially address this problem, a recommendation was made and accepted to direct the reallocation of resources freed by reducing force structure and streamlining infrastructure, as well as adjusting some modernization programs, to allow more realistic programming for known O&S costs. By making these prudent reallocations now in out-year planning and programming as a hedge against future migration, the Department took a significant step toward breaking the pattern of continuous budget-year erosion of its investment accounts, which results in sustained program cost growth. The effect over the FYDP period will be a less aggressive increase in investment funding than previously planned. However, this slower ramp-up to the goal of a \$60 billion annual procurement level is more likely to be executable given the reality of the funding pressures facing the Department.

Programming Reserves for Technical Risk and Uncertainty

Complex, technologically advanced programs all bear a certain degree of risk. It is the existence of that risk in leading-edge defense programs that gives us the opportunity to maintain a competitive advantage over potential adversaries. But, to couple aggressive cost goals with technical risks in a viable plan for program execution demands sufficient management ability to offset reasonable growth in costs associated with the risk. This management ability is needed not only to provide a "safety net" for pursuing aggressive cost goals, but also to provide a buffer against having to destabilize certain programs to deal with cost growth on other programs.

The QDR analysis concluded that prudent risk reserves in out-year programming were essential to provide the necessary flexibility to offset these types of cost increases and mitigate their influence as a key destabilizing factor affecting investment programs. As a result, technical risk reserves will be programmed beginning in FY 00 at \$250 million and increasing incrementally to \$1 billion annually by FY 03. These reserves will be held and managed centrally by the Service Acquisition Executives with oversight from the Under Secretary of Defense for Acquisition and Technology. Their use will be limited exclusively to dealing with cost growth due to technical risk and uncertainty (e.g., labor rate changes, inadequate threat definition, unforeseeable facilities and equipment problems, unexpected engineering problems, etc.).

In conjunction with the availability of reserve funding, and in order to facilitate an expressed outcome (i.e., reduced investment program cost), there is a recognition that contractual mechanisms/agreements with contractors must be structured to provide the right incentives for motivating desired behavior. Simply stated, it must be less profitable for program participants to utilize the reserve than

to not utilize it, but the existence of the reserve should encourage the pursuit of aggressive cost-reduction initiatives.

At least initially, the plan is to liquidate the reserves in the budget year, before the budget is submitted to Congress. However, in POM 99, a pilot effort will be undertaken to assess the viability of explicitly identifying reserves in the budget. For this pilot effort, each of the Military Departments will select three major acquisition programs and establish reserves within them at levels which do not expose large amounts of funding, yet provide a high degree of leverage against technical risk and uncertainty that may arise in the year of execution.

Conclusion

The program stability initiatives adopted as a result of the QDR, represent a fundamental rethinking of the way we plan and manage defense programs and resources. Strong leadership commitment and a "top-to-bottom" cultural change will be necessary to successfully institutionalize them in enduring processes. However, having now clearly defined the problem, identified the basic causes, and outlined reasonable measures to alleviate the problem, the Department seems poised to finally confront, in a meaningful way, the decades-old problem of funding instability.

A new Under Secretary of Defense for Acquisition and Technology will shepherd the implementation of these initiatives into practice. But the "Kaminski Initiative" could be the former Under Secretary's greatest legacy of improvement in the defense acquisition business: a legacy of achieving program stability, enabling us to substantially reduce investment costs, field systems faster, and increase the purchasing power of the Department of Defense. Even Sisyphus would stand back in awe of a solution to this secret of the gods.