

Strategic Review

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QUADRENNIAL DEFENSE REVIEW

What Went Wrong? How to Fix It

Franklin C. Spinney
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Introduction

On May 19 the Defense Secretary Cohen released the results of the Defense Department's Quadrennial Defense Review (QDR). It was the Pentagon's third attempt to construct a post-Cold War military strategy, and like its predecessors, it failed to weave forces and budgets into a coherent military policy. By avoiding the hard decisions, the Pentagon made it easier for reactionary elements in the military-industrial-congressional complex to protect their parochial interests at the expense of our fighting forces and the taxpayers who pay for them. The Pentagon struck out, and the contractors are now in the batter's box.

My aims in this essay are threefold: (1) to briefly describe the most important results of the QDR, (2) to show why these decisions did not adapt the military to the changed conditions of the post-Cold War era, and (3) to lay out a conceptual framework for shaping a defense strategy that will work in the post-Cold War world of unpredictable threats, changing opportunities, and uncertain albeit ever-tightening resource constraints.

Results in Brief

The QDR acknowledged the changed conditions of the post-Cold War world, yet it ducked the hard decisions needed to adapt to them.

It reaffirmed the strategy of being prepared to fight two major regional wars nearly simultaneously, but it also committed the military to a strategy of global engagement, wherein a large portion of our forces are deployed overseas in peacekeeping operations such as Bosnia, Haiti, and no-fly zones over Iraq, etc. Although the QDR made a few minor changes in force structure, most notably a reduction of 15 warships and a transfer of one Air Force fighter wing to the reserves, it retained the main elements of the Defense Department's combat power: 10 active Army divisions, 3 active Marine divisions, 12 carrier battle groups, 12 amphibious ready groups, 20 active and reserve Air Force tactical fighter wings, and 187 strategic bombers. Many observers, including myself, do not believe this force structure is large enough to execute these strategies, particularly when the high rates of overseas rotations reduce readiness by wearing out equipment, degrading training, and depressing morale.

Reports of the rapidly deteriorating readiness situation began to surface in the press almost as soon as the QDR was published. On August 18, for example, George Wilson, the dean of the defense reporters, wrote in the *Navy Times* that the Internet is awash with back-channel e-mail traffic documenting the mounting anger and frustration of troops in the field. I have seen much of this traffic, and although it does not comprise a

scientific sample, it does document the first-hand experience of soldiers and airmen charged with carrying out the Defense Department's mission.

The troops speak of shortages of spare parts and engines, aging equipment, rising rates of cannibalization, morale-busting "workarounds," increased workloads, longer hours, decreased opportunities for realistic training, under-strength units, decaying infrastructure (one colonel wrote that he uses crack sealant to keep his disintegrating airport parking ramp from washing away in thunder storms), excessive deployments, and more frequent family separations than during the Cold War. The Army, always the first service to feel the pinch, may be as much as 15 percent short of authorized personnel strength. Many older officers are retiring after their squadron or battalion command tours, leaving a growing gap in the ranks of experienced post-command colonels and Navy captains. The best and the brightest of our junior officers and enlisted men are turning down promotions, refusing assignments to prestigious schools, and leaving the military in droves.

Most alarming, in my view, is a growing breakdown of trust between senior and junior officers. The seniors say readiness and people are the Defense Department's top priority, yet they spend billions to buy unneeded Cold War weapons, while basic needs in the field go unmet. Even the official Armed Forces Day poster – which depicted a parade of high-tech hardware -- celebrated weapons instead of the patriotic sacrifices of our soldiers, sailors, and airmen. Not surprisingly, a growing number of junior officers now believe their seniors will sell them out rather than risk their careers by stepping up to the hard decisions. . . and they are voting with their feet. The J.O.'s view attempts to retain them with lucrative bonuses as bribes. The fact that companies are hiring makes it easier to leave, but it is not the central cause of their exodus.

The QDR did not mention these problems, and it probably set the stage for worsening them by attempting to shift money from the operating budget to the modernization budget. To this end, it reduced personnel by 60,000 active military (-4%), 55,000 reservists (-6%), and 80,000 civilians (-11%). Nevertheless, the ratio of people to forces will still be higher than it was during the Cold War. The QDR called on Congress to authorize two more rounds of base closures and to permit increased outsourcing of government activities to the private sector. On the other hand, the QDR made no specific recommendations in these areas and, in effect, passed the buck to a Congress paralyzed by the narcotic of defense spending.

Most important, the QDR reaffirmed the high-cost modernization program that was put into place just as the Cold War was ending. Although it canceled no major programs, it attempted to reduce the rise of future budgets by slowing production rates and/or truncating total procurement quantities for several high-cost weapons programs, most notably, the F-22, F-18E/F, and Joint Strike Fighter programs, the V-22 Osprey tilt rotor program, and the Joint Surveillance and Target Attack Radar System (JSTARS).

In the area of technology, the QDR reiterated the Defense Department's commitment to an automated see-decide-strike theory of warfare known as the Revolution in Military Affairs (RMA). The RMA is a "system of systems" consisting of intelligence, surveillance, and reconnaissance sensors to find targets; an automated command, control, and communications system to decide which targets to strike and to control weapons launch decisions; and a variety of long-range, precision-guided weapons to carry out the actual attacks.

The RMA is a techno-strategy, but is hardly a revolution in thinking. In fact, its conceptual roots lie in Robert McNamara's vision of an electronic line in Vietnam, a multi-billion dollar fiasco known as Task Force Alpha/Igloo White. Although this vision was resurrected in several variations in the 1970s and 1980s, planners were unable to convert it into an effective system during the Cold War. Now, its latest incarnation is supposed to "revolutionize" the nature of a regional war against an undefined "near-peer" competitor on a hypothetical electronic battlefield in the year 2010. At the core of RMA is a radical hypothesis that would cause Sun Tzu, Clausewitz and George Patton to roll over in their graves: namely that technology will transform the fog and friction of combat (i.e., the uncertainty, fear, chaos, imperfect information, etc. which is a natural product of a clash between opposing wills), into clear, friction-free, predictable, mechanistic interaction. Finally, the QDR capped off Cold War business-as-usual by increasing the National Missile Defense (a.k.a. Star Wars) budget by \$2 billion. To date, we have poured over \$36 billion into these technologies and have yet to field one combat system.

The internal contradictions and priorities of the QDR have a common denominator: they put the profits of defense contractors and the interests of the congressional porkbarrel before welfare of the soldier or the taxpayer. Like the official Defense Department posters commemorating Armed Forces Day in 1996 and 1997, they celebrate hardware and forget people. Secretary Cohen arrived at the Pentagon too late to change the direction of the QDR, but it is now his responsibility to put the Defense Department on a sensible course toward the Twenty-First Century. Here is one insider's opinion of what needs to be done.

Why the QDR Failed to Produce a Realistic Post-Cold War Military Strategy

The QDR descended into another banal defense of the status quo, because it failed to consider how *internal constraints* shape strategy over the long term. These internal constraints emerge because costs always grow faster than budgets, and a broken accounting system prevents planners from appreciating the destructive effects of these asymmetric growth rates. Each of these problems is discussed below.

Problem 1: Cost Growth Greater than Budget Growth: The long-range modernization program will not produce enough new weapons to modernize the smaller forces of the

post-Cold War era. Although this conundrum has led to repeated calls for sharp increases in the modernization budget, the real cause of the production/inventory mismatch is that the unit costs of buying and operating the new weapons will continue to increase much faster than the budgets for those weapons, even if budgets exceed Cold War levels early in the next century.

Nevertheless, some people in the Pentagon and Congress believe the budget has been cut too much, and the only way to build a robust military strategy is to pour more money into the defense maw. To be sure, defense spending (\$254 billion) is now 26% smaller in inflation-adjusted dollars than it was on average between 1983 and 1992, and modernization budgets have declined by an even greater amount. But comparisons with the 1980s are misleading, because this decade was by far the most expensive of the Cold War. When today's spending level is viewed in a longer-term context, the data in Table I show that \$254 billion is almost equal to that averaged during the other two "peacetime" decades of the Cold War (i.e., 1953-62 and 1973-82), once one factors in the large uncertainties inherent in calculating the effects of inflation over a period of decades. In any case, comparisons with Cold War budgets are meaningless, because the justification for those expenditures, the Soviet/Warsaw Pact threat, does not even exist.

Table I: Annual DoD Outlays¹		
(Budget Category 051: Constant FY 1997 \$)		
FY 1997 Defense Dept. Outlays	\$254 Bill	Current Spending
<u>Cold War</u>		<u>(as % Reduction)</u>
Avg. FY 1983-1992 (Reagan-Bush)	\$345 Bill	-26%
Avg. FY 1973-1982 (Post-Vietnam)	\$261 Bill	-3%
Avg. FY 1963-1972 (Vietnam)	\$315 Bill	-19%
Avg. FY 1953-1962 (Post-Korea)	\$276 Bill	-8%

When evaluating the adequacy of today's budget, it is also important to remember that the size of our military is much *smaller* than at any time during the Cold War. Compared to the force levels reached during the 1980s, for example, combat units have been reduced by greater amounts than a 26% cut back in spending would suggest. Air Force tactical fighter wings, for example, have been slashed by 50%, ships in Navy's battle fleet by 37%, and the Army's active duty maneuver battalions by 44%. Although one might think these disproportional cut backs are unique adjustments brought about by the end of the Cold War, they are really part of a continuing evolution that began in the mid 1950s.

Why does the much smaller post-Cold War military require a Cold War budget to keep it running?

¹ The data comes from Table 6-11, *National Defense Budget Estimates for FY 1998*, Office of the Under Secretary of Defense (Comptroller), March 1997

Last summer, readers may recall, I published an essay in *Challenge* (“Defense Budget Time Bomb,” July-August, 1996²) that used a case study of tactical aviation in the Air Force to illustrate why the Pentagon’s long-range modernization plans are setting the stage for a budget time bomb that will detonate early in the next century. We can compare the results of the QDR to the problems I raised in that case study to determine how the QDR changed the situation.

Last year, the Air Force planned to spend \$86 billion to buy 982 F-22 and Joint Strike Fighter (JSF) fighter aircraft between 1996 and 2013. This program was supposed to modernize a force structure of 20 tactical fighter wings, or a total inventory of about 2,200 to 2,300 airplanes. The overwhelming majority of the new airplanes (792 aircraft, or 81%) would be purchased during the ten years between 2003 and 2012 for a total of \$68.6 billion at an average cost of \$86.7 million per plane, assuming no cost overruns (all dollars are expressed in FY96 constant dollars).

Now the most expensive decade of the Cold War for tactical aviation was 1983 to 1992, when the Air Force spent \$50.3 billion (FY 1996 dollars) to buy 1800 tactical fighters at an average cost of \$28 million per copy.

What would the QDR’s planners see if they compared these numbers to the ten years between 2003 and 2012?

They would see that the Air Force intended to spend 36 percent more than it spent in the most expensive decade of the Cold War to buy 56 percent fewer fighters, because unit costs would increase by 210 percent, or almost *six times* faster than the budget. To make matters worse, they would also see that the low rate of production between 2003 and 2012 would come after a decade of almost no production; only 116 airplanes will be purchased between 1993 and 2002, while the F-22 and JSF are in development.

Consequently, even though the post-Cold War force of 20 tactical fighter wings is only half the size of the level reached in the mid-1980s, and is now much smaller than at any time since 1950, the QDR’s planners would see that the turnover of that inventory would be the lowest in history, and therefore, the average age of a fighter would rise from its current level of 9.6 years to an all-time high of 19.2 years in 2006, where it would level off until 2013. With some modest research, they would know that this would be by far the highest average age since the dawn of fighter aviation in 1914. A simple calculation would show them that an average age of 19.2 years implies a retirement age of 40 to 42 years, once the need to replace crashed airplanes is accounted for, and perhaps they

² “The Defense Budget Time Bomb” can be obtained by writing or calling the Fund For Constitutional Government or viewed at www.infowar.com/mil_c4i/defense.html-ssi

would draw the following analogy: If the Army Air Corps executed this plan to buy Spads in 1918, the Air Force would have retired them in 1960.

If they had done their homework, the QDR's planners might also have realized that no one knows how expensive it will be to operate high-tech airplanes when they are this old. One thing is certain, however: The increasing maintenance burden of old technologies will drive up operating costs at the same time we are trying to increase the modernization budget, balance the federal budget, and manage the growing demand for Medicare and Social Security.

Finally, if the QDR's planners had done their homework, they would have been driven to an inevitable conclusion: Something will have to give, and if past is prologue, they will be forced to reduce readiness and eliminate our combat forces to save the modernization program. They would have understood that, since combat power will decline -- even if budgets increase to greater than Cold War levels -- their job was to construct a strategy that prevented this destructive evolution from occurring.

Unfortunately, the QDR's planners did not do their homework, and consequently the report of the QDR does not even mention any of these problems. In fact, its decisions make a bad plan worse. It retained the 20 wing force structure, but in order to reduce growth in the mushrooming modernization budget, it cut the total buy of F-22s and Joint Strike Fighters from 982 to 771 aircraft, or by 21 percent, between 1998 and 2013. Moreover it cut back the maximum production rate of the F-22 from 48 to 36 per year, or by 25%, and it slowed the JSF's build-up to maximum production by two years (2012 versus 2010).

These decisions will decrease the inventory turnover ratio and *accelerate* the rate of age growth, which will worsen all the pathologies I described last summer (re: Footnote 2, "Defense Budget Time Bomb" pp. 27-29). We can expect mounting economic pressure to reduce force structure and/or combat readiness as the older equipment becomes more expensive to maintain and operate, and as pressure to transfer money from operations to modernization increases. We can expect that the contractors will use these production cutbacks as an excuse to raise their prices. We can expect more cost overruns to compound these pressures. Most important, we can expect morale to decrease as troops are forced to do more with less. We can expect professionalism to decline as our best people become disgusted and leave the service.

While the case of Air Force tactical aviation is perhaps the most extreme example of the general problem, *costs are growing faster than budgets* and equipment is getting older in all mission areas. As long as these economics remain in place, our military will decline in combat power; the arithmetic of compound growth is ineluctable. The defense budget bomb will detonate early in the next century, when that decline triggers calls for

ever larger defense budgets at the same time retiring Baby Boomers begin to push the cash outflows of Medicare and Social Security into the stratosphere.

Problem 2: The Pentagon's Bookkeeping Shambles: Today, it is impossible to produce a budget that links current decisions to past expenditures or to the future expenditures implied by these decisions. The QDR's planners completely ignored implications of the well-documented fact that the Pentagon's accounting system is broken.

In the "Time Bomb" essay, I made only a passing reference to the bookkeeping crisis. I cited a November 1995 congressional hearing where auditors of the General Accounting Office (the investigatory arm of Congress), the Defense Finance and Accounting Service, and Defense Department's Inspector General testified that at least \$20 billion of expenditures could not be matched to the items they purchased. Subsequent audits show that \$20 billion was just the tip of a much larger iceberg.

On June 11, 1996, the General Accounting Office (GAO) updated the November 1995 audit, reporting again that the Defense Department's bookkeeping system cannot link between \$20 and \$30 billion in actual expenditures to the items that money purchased. Ten months later, on April 30, 1997, in a second update, the GAO said problem disbursements increased to \$43 billion. The Defense Department Comptroller objected, saying the problem disbursements amounted to only \$18 billion.³

On July 26, 1996, the Defense Department's Inspector General (DoD/IG), released a report saying it could not audit the \$80+ billion Defense Business Operations Fund (DBOF), because its "financial systems continue to lack a sound internal control structure."⁴

On November 19, 1996, the DoD/IG released a report saying it could not audit the FY 1995 General Fund financial statements of the Army and Air Force, as required by Public Law 101-576, the Chief Financial Officers Act of 1990. This law requires the annual preparation and audit of financial statements for trust funds, revolving funds, and substantial commercial activities of all the Executive departments. (Under the provisions of PL 101-576, the DoD/IG is not required to render an opinion on the Navy and the Defense Agencies until 1996.) The DoD/IG issued a disclaimer of opinion, saying in its Executive Summary ...

"The overarching deficiency was the lack of adequate accounting systems for compilation of accurate and complete financial data. Specifically, the Army and Air Force Audit Agencies were unable to render audit opinions on their

³ Associated Press, "GAO: Pentagon Books Not in Synch," April 30, 1997 Filed at 5:57 p.m. EDT

⁴ Office of the Inspector General, DoD. *Internal Controls and Compliance With Laws and Regulations for the Defense Business Operations Fund Consolidated Financial Statements for FY 1995*. Report No. 96-178, July 26, 1996

Military Departments' FY 1995 General Fund financial statements because of inadequate accounting systems; a lack of audit trails; unsupported amounts for several types of assets, liabilities, and expenses; unreliable financial information; and poor internal controls." The DoD IG also noted that the "requisite [i.e., corrective] systems will not be in place before FY 2002."⁵

Bear in mind, the General Fund comprises the overwhelming majority of defense expenditures.

On April 10, 1997, the DoD/IG released three new audit reports of the military services' Fiscal Year 1996 Financial Statements. The Air Force Audit Agency, for example, could not verify the acquisition costs of \$282 billion in assets and found a \$20 billion discrepancy between estimates made by the Air Force and the Defense Logistics Agency for the value of the same inventory of government-furnished property. The Navy Audit Service reported its ammunition value "contained material omissions amounting to at least \$20.4 billion and improper inclusions totaling at least \$11.6 billion." The Army Audit Agency reported that the values of its inventory (\$38 billion), its military equipment (\$81 billion), and its real property (\$27 billion) were all "misstated by an *unknown* but probably material amount" [emphasis added].⁶

The bookkeeping mess is not limited to past expenditures — it is also evident in our plans. Each year, the Defense Department produces a five-year budget plan known as the Future Years Defense Plan, or FYDP. Ironically, while the authors of the QDR confidently spouted visions of military-technical revolutions on electronic battlefields in 2010, they cannot even construct a coherent "vision" of what a weapon will cost in three to five years. Their inability to do so becomes clear when one compares a weapon's cost projections in the future years of one FYDP to those in other FYDPs.

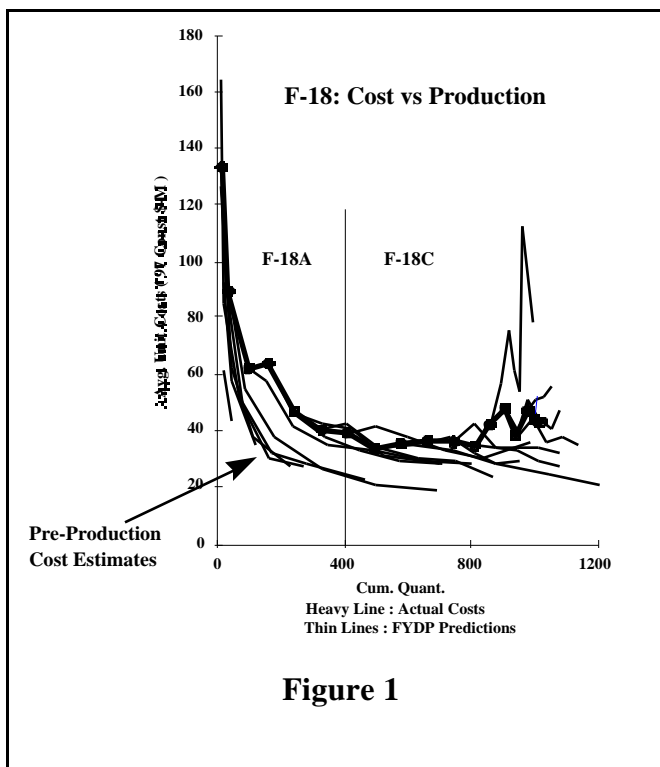


Figure 1

⁵ Office of the Inspector General, *Major Deficiencies Preventing Auditors From Rendering Audit Opinions on the FY 1995 DoD General Fund Financial Statements* (Report No. 97-026), November 19, 1996, pp. i-ii, 2.

⁶ John Donnelly, "Auditors Seek 'Lost World' of Miscalculated Billions," *Defense Week*, April 28, 1997, page 1.

State-of-the-art data processing technologies now make it possible to perform such comparisons across many FYDPs for any line item in the defense budget. To this end, we have combined the last twenty-one FYDPs into a 90-megabyte database. This database permits a planner to determine how accurately the cost, quantity, and budget predictions of our production plans matched up to what really happened (in inflation adjusted dollars). The database and the methodology underpinning these comparisons have been validated by a GAO audit made at the request of Senators Grassley and Roth.⁷ Figures 1 and 2 are typical examples of these comparisons and will be used to illustrate the nature of the plans/reality mismatch.

Figure 1 compares the differences between the planned and actual costs for the Navy's F-18A/B/C/D fighter, a major weapon system developed by McDonnell-Douglas. The F-18 entered production in 1979. Figure 2 is a comparable depiction for an Air Force runway cleaner, a typical example of a minor procurement item.

The information in our database shows that the long-range cost predictions made during the pre-production stage of a major weapon's life cycle almost always understate its eventual production costs by very large amounts. The F-18 is a typical example of this bias. Figure 1 relates the average annual cost of an F-18 (on the vertical axis) to the total number produced (on the horizontal axis). The average annual costs can be thought of as an approximation of each additional F-18 produced (or what an economist would refer to as "marginal costs").

The heavy black line with the "ball" markers depicts the *actual* costs versus the number of F-18s produced. This portrayal is known in the Pentagon as a *learning curve*. The thin lines show the *planned* learning curves contained in each of the five-year plans (FYDPs). All costs have the effects of inflation removed and are depicted in constant FY 1997 dollars.

Figure 1 can be read as follows: Since the first year of F-18A's production was 1979, the horizontal distance between each "ball" represents the total purchases up through the end of the year in question. The first seven years of production, for example, take us from FY 1979 to 1985 and are depicted by the left-most seven "balls." The heavy black line in Figure 1 shows we bought a total of about 400 F-18As during these seven years. It shows that *actual* unit costs declined from about \$135 to \$40 million per copy during this part of the production run. So, as would be expected, marginal costs declined as production increased.

Now let's compare these actual costs to the F-18's *predicted* costs (i.e. the thin lines). Note how the earliest plans (the thin lines furthest to the left) are far below the

⁷ General Accounting Office (GAO/NSIAD-96-152R), April 30, 1996, a report sent to Senators Grassley and Roth.

solid black line. Figure 1 shows how the early plans predicted that the 400th F-18A would cost about \$24 million. So in the case of the F-18, we have a mismatch between plans and reality: Actual costs declined from \$135 to \$40 million per copy between 1979 and 1985, but the 400th F-18 still cost 67% more than the \$24 million per copy originally predicted for this point in its production life cycle. Since the marginal costs did not decline as fast and as far as predicted, the pre-production plans misrepresented the future consequences of the production decision. Moreover, the overlapping character of the thin lines shows that this misrepresentation was a repetitive phenomenon.

The structural bias to understate future costs is the first step in a systematic political effort to suck money out of Congress. It reflects the well-known bureaucratic power game of *front-loading* or *buying-in*. The scam is to deliberately “low-ball” future cost estimates in order to obtain a commitment to begin concurrent engineering and manufacturing development (known as EMD). Once this commitment is approved by the government, the defense company can expend contract dollars (i.e., tax dollars) on investments in establishing a production base and a nationwide network of suppliers. The EMD decision, in effect, gives the contractor permission to use public money to build his political protection network by systematically spreading subcontracts and production facilities to as many congressional districts as possible. The spreading operation is known as *political engineering*.

When the true costs of a politically-engineered program eventually emerge, as they clearly did in the case of the F-18, the political stakes have become so high, neither Congress nor the Pentagon can muster the will to cancel the program. Instead, decision makers on both sides of the Potomac cut back production rates to reduce total costs in order to protect the jobs and profits of their constituents. Viewed in the context of the defense power games, the production stretch-outs of the QDR are a predictable, indeed inevitable, consequence of business as usual in the military-industrial-congressional complex.

While these power games may work to the Pentagon’s advantage in the short term, they create a vicious cycle of destruction over the long term. The “low-balled” cost projections made during the pre-production phase of a weapon’s life cycle permit too many new programs to get stuffed into the outyears of the FYDP. This sets the stage for repeated cycles of cost growth. On the other hand, the effects of political engineering paralyze decision-makers and lead to inefficient expediencies, like repeated production stretch-outs.

Lower rates of production naturally decrease the rate of inventory turnover, which causes weapons to become older and more expensive to operate. To make matters worse, deficient production rates create growing economic pressures to transfer money from the operating budget to the modernization budget at the same time the rising cost of operating the older weapons makes it more difficult to do so. Consequently, over time, something has to give -- and the routine response is to cut combat readiness and/or shrink the number of combat units. The decisions of the QDR are entirely consistent with this business-as-usual evolution.

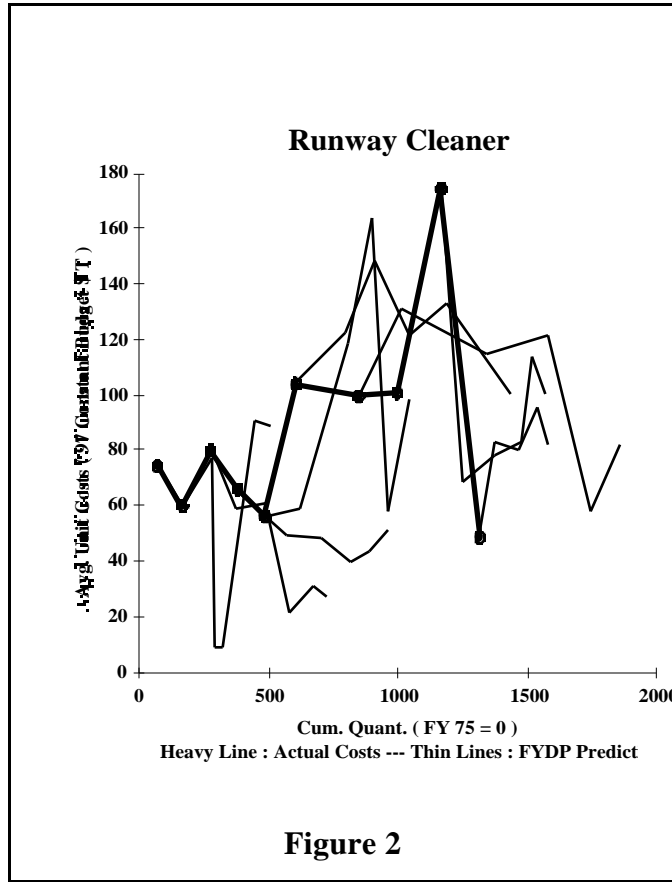


Figure 2

Some people argue that the plans/reality mismatch depicted in Figure 1 is an unavoidable consequence of technical complexity and of being at the cutting edge of new technologies. Figure 2 ought to put this argument to rest. It portrays the plans/reality mismatch for a simple low-tech system -- a street sweeper that the Air Force uses to clean its runways. Like Figure 1, the heavy line in Figure 2 compares actual costs to predicted costs in a “learning curve” format. The chaos speaks for itself.

If the planners had done their homework, they might have understood these well documented bookkeeping problems, but their report ignored completely the logical, strategic, and constitutional implications of the bookkeeping shambles.

The report of the QDR contains elegant statements about the strategic vision of an electronic battlefield in 2010, but when its authors cannot even account for money that is being spent today, and cannot accurately foresee the future consequences of today’s budget decisions, it is logically impossible for them to construct a coherent road map to 2010.

The strategy of the QDR is headed for the dustbin of history because it is *not connected* to the real world.

If the banality of the QDR does a disservice to the American soldiers who may be asked to put their lives on the line sometime in the future, the constitutional implications of the Pentagon's budget shambles are even more shocking.

The central premise of any representative democracy is that the people's representatives can be held accountable by the people. The Framers of our Constitution understood this and designed the system of checks and balances to ensure that accountability. One of those checks is that every member of the US government makes a sacred oath to uphold the spirit and the letter of the Constitution. Another check is Article 1, Section 9, Clause 7, which requires Congress to publish a "... regular Statement and Account of the Receipts and Expenditures of all public Money ..." from time to time. The Defense Department's continued toleration of the bookkeeping crisis makes a mockery of this requirement and therefore violates the spirit, if not the letter, of the Constitution. The cavalier treatment of our oath to support and uphold the Constitution insults the American taxpayers who are being asked to pay the bill, and left unchecked, it undermines our form of government.

The next section describes how we could build a strategy that works in the real world of uncertain threats, changing opportunities, and constrained resources.

Teach the Pentagon to Think Before It Spends

The QDR purports to be a strategic vision of the future, yet it does not account for the future consequences of current decisions. This kind of planning is by no means a new phenomenon in the Pentagon. Politicians and defense intellectuals have complained for years that the Pentagon cannot determine priorities because it has no strategy. The legislation passed by Congress in 1996 mandating a Quadrennial Defense Review is the most recent reflection of a long-standing frustration. Nevertheless, in one strategic review after another, the critics have recommended and defense planners have executed the same step-by-step procedure to solve the strategy conundrum:

1. Identify national goals and the threats to these goals.
2. Determine the strategy to counter the threats.
3. Determine the forces needed to execute the strategy.
4. Determine the budget needed to build and maintain these forces.

That this procedure cannot solve the strategic puzzle ought to be clear from the recurrent calls for yet more strategy reviews.⁸ While it is not a direct cause of the

⁸ Examples of failed strategic reviews include "PRM-10" during the Carter Administration, the "National Strategy Review" and "Base Force" during the Bush Administration, and the "Bottom-Up Review" at the beginning of the Clinton Administration. The fact that special reviews are deemed necessary ought to raise a question, because the Defense Department's Planning, Programming, and Budgeting System (PPBS) is

problems discussed above, the formulaic determinism of this procedure shackles our minds and prevents us from realizing a solution to the problem.

In theory, each step of the procedure depends on the preceding step but is independent of the subsequent step. Strategy is the key link in the chain; it ties our relations to the outside world (goals and threats) to our internal conditions (forces and budgets). But it is wrong to think that strategy depends only on external factors, like goals and threats.

The fallacy becomes apparent when one applies the four-step formula to a simple military problem. Suppose a battalion commander is given a “mission order” to defend against a threat on the flank of his division. Under the concept of mission orders he is told what to do but not how to do it. If he used the Pentagon’s method to solve his “strategic” problem, he would define his strategy *before* he examined how personnel or materiel limitations might shape or limit his maneuver and fire options. His operational plan, for example, would not be affected by the fact that one-third of his battalion was wounded and the other two thirds were short of ammo. This is nonsense.

In the real world, *strategy is the art of the possible*, and any strategic decision-making procedure that ignores how one’s internal constraints might limit or shape what is possible is a contradiction in terms.

Strategy *should* link our relations with the external world (goals and threats) to our internal conditions (the constraints of forces and resources). A biologist would view strategic planning as a selection process that harmonizes the internal structure of the organism with its environment. One side of the link does not uniquely determine the other, but each simultaneously feeds back on and shapes the other. The environment shapes the organism while the organism shapes the environment. Like evolution, strategic decision making is a process of *combination* and *selection* in an ever-changing, co-evolving domain consisting of external threats and opportunities on the one hand and internal structures and limitations on the other. The shaping effects of positive feedback in this interaction make strategic planning a nonlinear, non-sequential mental activity. That is one reason why intuitive behavior is so important on the battlefield.

Strategic decision-making is therefore a *synthetic* activity and is by its nature simultaneous, constructive, and adaptive.

In contrast, the four-step process used by the Pentagon is an *analytical* recipe for a *dissection* that follows a predictable, sequential, non-adaptive path. The analytical elegance of the recipe may appeal to intellectuals housed in Cartesian towers, but the

structured exactly like this logic chain and has been the central strategic planning methodology since the early 1960s. If this logic worked in the real world, periodic strategic reviews would not be necessary.

simplistic assumption that strategy uniquely determines forces and budgets in effect presumes resources (money) are unlimited.

In the real world, where messy bureaucratic conflicts bubble up out of a clash of competing agendas, this kind of *unconstrained* thinking provides no incentive for making the hard decisions needed to uncover a harmonious set of priorities among incommensurable but nevertheless competing options. Unconstrained thinking always produces unaffordable wish lists.

Moreover, by ignoring internal constraints like resource limitations, our strategists abdicate their responsibility for hard decisions. That puts the onus on others -- the bean counters, budgeteers, and porkbarrelers. These people have different agendas — as evidenced by the fact that recent votes in Congress suggest that preservation of jobs is now the real goal of our nation's defense "strategy."

A strategic planning process should discover priorities by systematically exploring the interplay among the uncertainties surrounding the external threats and opportunities on the one hand, and our internal structures and constraints on the other. The following proposal sketches out a *combination-and-selection* process that explicitly addresses the co-evolving nature of strategic planning.

By far, the most important internal constraint shaping the evolution of our military capabilities is the perpetual budget squeeze. Since this is a consequence of “*cost growth greater than budget growth*,” a necessary condition of a competent decision-making activity is to make the long-term consequences of this asymmetry evident *before* decision makers lock themselves into a given course of action. That implies a second precondition: Planners must first fix the Pentagon’s accounting problems.

Fixing the books is not sufficient to produce a sound strategy, but more reliable numbers would give planners the wherewithal to understand the strengths and weaknesses of the defense program. This knowledge, combined with state-of-the-art computer software technology, would make it possible for planners to understand how internal structure and capabilities would change over a range of long-term budget scenarios -- from optimistic to pessimistic. Under the constraints imposed by each scenario, they could determine the marginal effects of different force structure combinations in terms of achieving goals and neutralizing threats. By using a trial-and-error process of combination (which unleashes creativity and imagination) and evaluation (which uses testing and logic to discipline the imagination), planners could maximize strengths and minimize weaknesses of alternative combinations in order to gradually evolve (i.e., select) the most capable force structure option within the constraints of a given budget scenario. In so doing, planners would use their judgment to discover priorities (which are a reflection of the opportunity costs of incommensurable capabilities) by evolving the least painful program cuts as they move from higher to lower budget levels. An iterative process of

combination and evaluation would also identify the best way to add programs, should the budget come in at higher levels.

Contingency planning and sensitivity analyses are common in war planning and business planning; there is no reason why they can not be done for defense program planning. Three phases of operation are needed to translate this abstract idea into concrete action. The first phase cleans up the books.

Phase I: DoD's annual budget to Congress is the linchpin of an accounting continuum (the FYDP database) reaching backward for two years to record actual expenditures and forward for five years to record programmed expenditures. Looking backward, the coherency of a defense strategy (and its supporting budget) depends in part on the consequences of past expenditures. But the auditing problems revealed by the General Accounting Office and the Defense Department's Inspector General prove we can not link past expenditures to today's budget decisions.

The future years of the FYDP database are also disconnected from the budget. Over twenty years of FYDP/reality mismatches have created a boiling programmatic soup in which "low-balled" numbers breed like metastasizing cancer cells. Biased numbers hide the future consequences of current policy decisions, permitting too many programs to get stuffed into the "outyears" of the long-range budget plan. This sets the stage for repeating cycles of cost growth and procurement stretch-outs, decreasing rates of modernization and older weapons, shrinking forces, and continual pressure to bail out the self-destructing modernization program by robbing the readiness accounts.

The end of the Cold War provides a unique opportunity to take decisive action without jeopardizing our national security. But to be decisive, the military services will need at least a year to begin their book-cleaning operation.

The President and the Secretary of Defense should suspend the FY 1999-2003 budgeting cycle and immediately order a *one-year program freeze* to buy the time needed to begin scrubbing the books. During this period, decision makers in the Defense Department would strive to maintain or increase their flexibility to make future decisions (needed in Phases II and III). To this end, they would make no new long-term contractual commitments during the program freeze. All acquisition milestones would be postponed, but existing programs would continue on a "work-in-progress" basis. On the other hand, decision makers would proceed with any actions that would increase the Defense Department's flexibility or adaptability into the future, like planned terminations, cutbacks, and base closings. They would also remove special-access clearances for all programs, except intelligence programs. Black clearances stifle accountability, increase costs, and hide unprincipled behavior. (Doubters should study the Navy's recent A-12 debacle, where the contractor deliberately underbid the contract and could not deliver on

its promises but won a lawsuit for the damages caused by the program's cancellation, because the government violated the law.⁹)

Obviously, a program freeze will be disruptive and create economic inefficiencies in the short term, but unfortunately, that is the price we must pay to obtain greater efficiency and coherence in the long term. While programs are frozen, the audit agencies of the Defense Department will undertake a maximum effort to do comprehensive financial audits of the expenditure control system, the FYDP database, and the assets assigned to each organization. War planners would commence a comprehensive readiness audit of each military service. Using the more realistic cost numbers produced by the financial audits, each military service would then build a new FY 1999 to 2003 high-readiness baseline program by re-pricing the procurement and O&M programs in the approved Clinton Program. Taken together, these re-priced budget estimates become the new DoD baseline budget scenario, which probably will require substantially larger budgets than the plan approved by the President and Congress in May 1997 as part of the balanced budget deal. The stage is now set for Phase II.

Phase II: Planners in each military service (or defense agency) would examine how the internal capabilities and structures of their service would change over a range of optimistic to pessimistic budget scenarios, assuming each service's share of the total budget remained constant in each scenario. Military planners would construct their most effective force package under each scenario by maximizing its strengths and minimizing its weaknesses while conforming to that scenario's resource constraints. During Phase II, the service planners would be free to use their parochial perspectives to shape these options in a way they think best addresses the threat uncertainty. In so doing, they would naturally surface opportunity costs and evolve their service's parochial (microscopic) priorities by identifying the least painful program cuts as one moves from higher to lower budget levels. Each service would conclude Phase II by producing a comprehensive net assessment for the long-term consequences of each of its five force packages. The force packages produced in Phase II, together with the net assessments, become the building blocks of Phase III.

A crucial decision in Phases II and III is selecting a realistic range of budget scenarios. One factor influencing this decision is external: the global threat facing our military forces. Today, that threat is enormously diminished. According to the respected International Institute of Strategic Studies, the United States now spends about \$264 billion on defense (including the nuclear program in the Energy Department). If one adds to that the budgets of our allies (NATO, the OAS, the Gulf War Coalition, and treaty partners), "friendly" defense expenditures rise to \$563 billion. By contrast, our potential adversaries spend a total of only \$92 billion (Russia, \$48 billion; China, \$32 billion; and

⁹ James P. Stevenson has written a book describing this debacle, which will be published by the Naval Institute Press in 1998 or 1999.

the Rogue states, \$12.4 billion for combined expenditures of Iran, Iraq, Syria, North Korea, Libya, Cuba, Sudan). With differences this large, it is hard to argue that larger defense budgets are a realistic requirement. On the other hand, the low level of threat spending suggests that the range of possible budget scenarios could be much lower than the budget projections contained in the Pentagon’s current plan.

The second factor shaping the selection of a range of budget scenarios is internal. It derives from the long-term pressure to balance the budget while financing the increasing burden of Medicare and Social Security. Last November, John Hamre, the Comptroller of the Department of Defense, said a Constitutional amendment to balance the federal budget would force a reduction of about \$100 billion from the \$286 billion budget projected for 2003. Bear in mind, balancing the federal budget by 2002 will not end the long-term squeeze on the defense budget, because the negative cash flows of Medicare and Social Security will begin to increase rapidly as the Baby Boomers begin to retire in large numbers after 2003. So a consideration of internal fiscal constraints also suggests the relevant range of budget scenarios would be much lower than the approved budget plan. Table II uses Hamre’s estimate to exhibit the long-term budget uncertainty.

Table II: Hypothetical Budget Scenarios		
DoD Scenario	TOA in 2003	5 Yr Cut Fr FYDP
1. DoD Baseline	+ \$ (?)	+ % (?)
2. 98-03 Topline	\$285 B	0
3. Current \$ Freeze	\$252 B	-\$33 B
4. 2.8% Decline/Yr	\$218 B	-\$67 B
5. 5.7% Decline/Yr	\$185 B	-\$100 B

The table breaks down Hamre’s uncertainty range into five possible scenarios—the re-priced baseline program plus four lower scenarios. While a Scenario 5 budget of \$185 billion may seem extreme to some readers, it is still more than twice as much as that of all our adversaries combined. Given the magnitude of our fiscal problems and the low level of threat spending, the real downside uncertainty may be much greater than that shown in the table.

Phase III: This phase operates on the following principle: What is best for the individual military service may not be best for the Defense Department or the nation. The aim of Phase III is to synthesize the parochial priorities of each service into a coherent system of *national* defense priorities that reflects and exploits the changed conditions of the post-Cold War era. This task is the responsibility of the Joint Chiefs of Staff (JCS) and the Office of the Secretary of Defense (OSD). In Phase III, JCS and OSD would combine the force packages produced by the military services in Phase II into a comprehensive set of DoD Strategic Planning Options (SPOs) covering the five budget scenarios.

The 15 force packages (five from each service) produced in Phase II, plus those of the defense agencies, together with their net assessments, provide the microscopic information needed for a true policy-level decision-making process. Like their service counterparts in Phase II, planners in JCS and OSD would use a *combination-and-selection* process to continuously maximize the strengths and minimize the weaknesses of the total force while conforming to the macroscopic budget constraints of each scenario. In this way, they would systematically explore the marginal effects of different macroscopic combinations. Creative tradeoffs among the variety of individual force packages might reveal interesting new macroscopic possibilities. The most effective Scenario #4 DoD SPO, for example, might combine a Scenario #5 Air Force package with a Scenario #2 Navy/Marine Corps package and a Scenario #5 Army package.

Perhaps a hypothetical example of this JCS/OSD SPO will make the idea more concrete: Table II shows that Scenario #4 would reduce the DoD budget to \$218 billion in current dollars until 2003, implying a reduction of \$67 billion from the level planned for 2003. Under the tighter restrictions of this constraint, strategic planners might choose to spend far less on the Air Force (a Scenario #5 option) by transferring a very large percentage of its forces to the reserves, which are noted for their excellence, thus preserving its combat power for a mobilization/reinforcement scenario. They might also choose to reduce the Army's budget to a Scenario #5 level by eliminating some active forces and transforming its active/reserve divisional structure into a much smaller and leaner force structure based on heavy, light, and airmobile battlegroups. Such a force would be more deployable in the short term, but would preserve the balance of a large continental army, should we need to expand it sometime in the distant future. These reductions could permit planners to fund the more expensive, re-priced Navy/Marine package of Scenario #2 while conforming to the tighter constraints of the Scenario #4 budget projection.

Planners might argue that this hypothetical SPO adapts the military to the realities of the post-Cold War era and returns the United States to its traditional military posture, because it (1) reduces the budget; (2) maintains the expeditionary capabilities needed to protect our historical interests in the world's littorals, with the Navy and Marine Corps being the rapid deployment option, reinforced by Army battlegroups and mobilized Air Force reserves, if necessary; and (3) retains a capability to field the heavy air/ground combat power needed to offset any major power imbalances in Europe or East Asia, should the need re-emerge sometime in the distant future. The supporting modernization programs, nuclear forces, and programs in the independent defense agencies would also be tailored to fit the world conditions that are implied by this strategic choice.

The exploration of such tradeoffs would permit JCS and OSD planners to search for and evolve truly national priorities out of the parochial priorities of each service. JCS and OSD would conclude their efforts by producing a macroscopic net assessment for each preferred DoD SPO -- including the assumptions and tradeoffs made, an analysis of

its deficiencies and limitations, its impact on national security in terms of achieving goals and neutralizing threats, and the best military strategy for working around its limitations. The final report, when approved by the President, would be a comprehensive strategy coupled to the skeleton of a new FYDP, complete with global priorities and pre-planned hedging options to cope with uncertainty.

The systematic combination and selection process at the different levels of organization would provide the ingredients of a seamless information system that permits decision makers to shift their focus back and forth among the microscopic and macroscopic levels of organization. This capability would reveal the true cost of a *microscopic* decision by forcing an examination of its *macroscopic* consequences prior to making commitments. If, for example, planners chose to keep a B-2 procurement option in each SPO, they would have to eliminate more and more other programs -- such as F-22 fighters, carrier battlegroups or army divisions -- as they moved toward lower budget levels. These tradeoffs, coupled with excursions into the consequences of cost growth, would reveal when the cost of the B-2 becomes prohibitive in terms of the incommensurable sacrifices made elsewhere. In this way, the reciprocal explorations of these microscopic and macroscopic uncertainties would enable planners to anticipate problems, tease out options, evolve priorities, and perhaps do things differently.

Faultfinders will be tempted to argue that a program freeze will create chaos. This criticism is patently absurd. The defense program is already in chaos and the banality of the QDR fiasco proves that business as usual does not pass muster. More important, the Defense Department's bookkeeping mess mocks the principle of accountability, and by extension, the Constitution we have sworn to defend. Fixing the books and making our decisions transparent and understandable to the American people is a patriotic duty.

Others may argue that threats should drive strategy, but this proposal has budgets driving strategy. This linear babble ignores the nonlinear nature of strategy, not to mention the changed conditions of the post-Cold War era. In the real world, actions to neutralize threats and the constraints limiting those actions continuously interact with and fold back on each other. This proposal enables planners to shape a real strategy precisely because it is designed to explore the co-evolving interplay of threats, events, opportunities, internal structures and constraints.

It might be feared that even thinking about lower defense budgets will create a self-fulfilling prophecy, because it will open the door to opportunistic budget-cutting by an irresponsible Congress. This argument plays well in the mendacious atmosphere of Washington. But it must be rejected for logical as well as moral reasons: To say that the Pentagon should continue producing irresponsible plans, because acting responsibly will provoke Congress into acting irresponsibly leads to the conclusion that we should deliberately misrepresent our needs; in other words, we are justified in committing a crime -- lying to Congress -- because we are morally superior.

Strategy is not a game; it is the art of the possible in a world where changing threats and constraints force us to choose between unpleasant or imperfect alternatives. The aim of any strategy should be to continuously improve our capacity to shape and adapt to these changes. To do this, we must continually strive to improve the “fit” of our plans to reality today while preserving or increasing our fitness to cope with unpredictable changes in the future. If we want meaningful strategic priorities, we must understand the tradeoffs they imply *before* we make rigid commitments that lock us into a long-term, non-adaptive course of action. Who knows, with a little accountability, perhaps the Pentagon can learn to think before it spends. That might help the President and Congress adapt our military forces to the end of the Cold War, balance the budget by 2002, and preserve the integrity of the Constitution.

ABOUT THE AUTHOR

Franklin C. Spinney has over twenty-five years experience as a research engineer and program planner in the U.S. Air Force and the Office of the Secretary of Defense. He is author of *Defense Facts of Life: The Plans/Reality Mismatch* (1985), and *Defense Power Games* (1990), as well as articles in the *Washington Post*, the *Wall Street Journal*, and *The Proceedings of the Naval Institute*. Spinney’s work, while controversial, has received international recognition for its quality and comprehensiveness. He has appeared before Congress as an expert witness on many occasions. He holds a B.S. in Mechanical Engineering and an M.B.A.

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