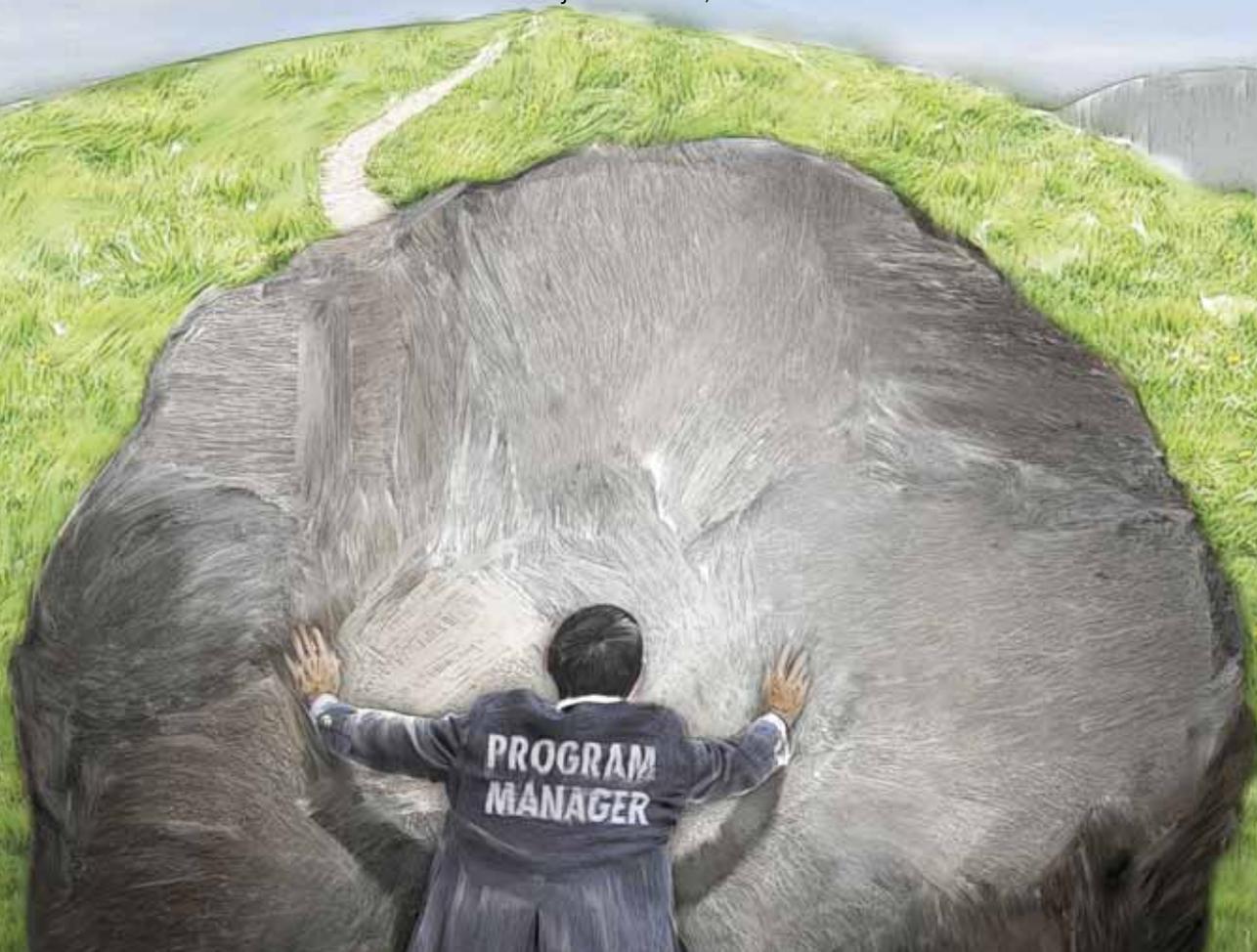


# Call Me Sisyphus

Maj. Dan Ward, USAF



recently came across an article from *Air University Review* titled “Why Military Airplanes Cost So Much and What Can Be Done About It.” The author is Air Force Maj. Frederick Stark (apparently no relation to billionaire industrialist Tony Stark of Iron Man fame).

Stark’s article covers familiar ground, bemoaning excessive cost growth, endless schedule delays, and rampant complexity in the aircraft we acquire and in the bureaucracies responsible for acquiring them. He writes, “The cost of growth in military hardware is increasingly the subject of national

**Ward**, currently a student at the Air Force Institute of Technology studying systems engineering, holds degrees in electrical engineering and engineering management. He is Level III certified in SPRDE and Level I in PM, T&E, and IT.

debate. Critics of the Department of Defense cite massive cost overruns on major weapon programs, usually aircraft, as evidence of mismanagement and waste. ... We are currently paying eight times the cost per pound for fighter aircraft that we did in the 1940s. We are paying four or five times as much as we did in the 1950s. ... These are production costs. Development costs have grown even more."

Stark's article highlights one painful impact of cost growth, explaining that "as costs increase, we can afford to develop fewer new airplanes. This means that those we now have must stay in the inventory longer." The persistently shrinking F-22A fleet comes to mind, along with our critically aging tankers and F-15s. Stark goes on to point out "the way we procure aircraft has evolved into a very complex, institutionalized process," which is negatively affecting our defense posture. No doubt much the same can also be said for the other services and weapon systems.

These are familiar charges, and anyone who pays any attention to the DoD acquisition community has heard them before. In fact, Stark's article echoes many of the themes, principles, criticisms, and ideas found in the articles I have written over the past six years. As I read it, I felt as if I could have written it myself. But I didn't bring Stark's article up because he agrees with me so completely—I mention it because his article was published in 1973, the year I was born. The "new" aircraft he wrote about were the F-15 and the A-X, which we now know as the A-10.

Pardon me: I need a moment to compose myself.

### **Plus Ça Change ...**

I knew the DoD's cost, schedule, and complexity problems were long-standing, but to read a 36-year-old article that sounds as if it's describing today's situation triggered a minor existential crisis as I pondered the futility of trying to fix a problem that is so chronic and intractable. If the issues were clearly identified and enumerated in 1973, and if reasonable, feasible solutions were proposed to no avail, what the heck do I think I'm doing? What hope is there of ever making a difference?

In 1983, 10 years after Stark's article, reformer and "Pentagon maverick" Franklin Spinney was on the cover of *Time Magazine*. He had just briefed the Senate Armed Services Committee on the skyrocketing costs of defense technology development, reportedly over the objections of his boss, David Chu. Along with Air Force Col. John R. Boyd and a

handful of other reformers, Spinney was pushing to improve military technology development efforts. The so-called "fighter mafia" had succeeded wildly with the F-16 Falcon in the 1970s but sadly didn't seem to have much impact in the wider acquisition environment. In the 1981-1983 timeframe, as Spinney was briefing the Senate, DoD initiated the RAH-66 Comanche helicopter, the XM2001 Crusader artillery, and the A-12 Avenger jet. All three top-priority projects were cancelled after the expenditure of billions of dollars and many, many years (22 years in the case of the Comanche). That is precisely the kind of failure the reformers were trying to prevent. The top-priority F-22A Raptor and V-22 Osprey were also begun in that timeframe. Both became operational in 2005 after more than 20 years of development and carrying price tags billions of dollars higher than originally estimated. That, too, is an outcome the reformers were trying to prevent. Just as no one listened to Stark, it is not clear anyone really listened to Spinney—who was absolutely, prophetically right.

**The chorus of reformers  
and critics is loud,  
prominent, persistent,  
remarkably consistent—  
and remarkably  
consistently ignored.  
Acquisition outcomes  
continue to get worse.**

Writing in *Acquisition Review Quarterly* [predecessor of the *Defense Acquisition Review Journal*] a mere 11 years ago (Spring 1998), Dr. Lauren Holland joins the familiar refrain, pointing out that "despite 35 years of acquisition studies and reform initiatives, the same problems persist: Weapons cost too much, take too long to deploy, and do not perform as expected." These studies and reforms include the 1986 Packard Commission, the 1994 Federal Acquisition Streamlining Act, the 1990s Acquisition Reform movement, the "Lightning Bolt" initiatives, and several others. One year after Holland's article, David S. Christensen, David A. Searle, and

Caisse Vickery published an analysis of the Packard Commission's impact on 269 contracts over an eight-year period (ARQ, Summer 1999). Their conclusion? After implementing the commission's recommendations, cost performance "worsened significantly." Ouch!

### **Plus C'est la Même Chose**

If we use Holland's figure and add 11 to 35, we have now had 46 years—almost half a century—of reform. The chorus of reformers and critics is loud, prominent, persistent, and remarkably consistent. And still, acquisition outcomes continue to get worse. Ten years after Holland's assessment, the Government Accountability Office's March 2008 report (GAO-09-467SP: Assessment of Selected Weapon Programs) bluntly states "cost and schedule outcomes for major weapon programs are not improving over the 6 years we have been issuing this report," despite the fact that "DoD's planned investment for new weapon systems

now reflects the highest funding levels in two decades.” Also in 2008, the Air Force Studies Board echoed the GAO’s assessment, pointing out “the time required to execute large, government-sponsored systems development programs has more than doubled over the past 30 years, and the cost growth has been at least as great.” I could go on, but I can’t bear it.

Naturally, any given reform effort can point to anecdotal evidence of individual success stories. However, when we examine the overall trend, as the GAO has done for six years in a row, it is obvious things are continuing to get worse, not better. Perhaps, as Holland observed, it is because “reforms must be implemented by groups of individuals who have a vested stake in the status quo.” Whatever the reason, it really is a shame.

The worst part is that we used to be good at this stuff. Once upon a time, DoD could roll out cutting-edge, world-class technology on a small budget and to a tight schedule. Writing in *Air Power Journal* in 2002, Air Force Lt. Col. Steven Suddarth points out that we started our intercontinental ballistic missile program in 1955, and “developed three generations of systems (an improved Atlas, Titan and the solid-fueled Minuteman) in a mere seven years. ... Capabilities that no one thought possible at the beginning of the period became operationally routine by the end.” Three generations in seven years? Transforming the impossible into the routine? Amazing, particularly considering it literally was rocket science. How far we’ve fallen.

In what he calls the “Great Air Force Systems Irony,” Suddarth observes, “The Air Force has moved from the simple management of complex systems to the complex management of simple systems—and has gained little in the process.” The other Services do not appear to be faring any better. Suddarth goes on to critique the “widespread belief ... that ‘better management’ would solve the problem. ‘Better management’ had a tendency to be translated into ‘more management’ with an accompanying increase in rigidity, delay and the suppression of initiative.” Interestingly, those aren’t Suddarth’s own words. He’s quoting John Bennett’s doctoral dissertation (The George Washington University)—from 1974!

So, we’ve had an inkling for several decades now that attempting to fix things through “better” (i.e., more) management actually ends up causing more damage than it repairs. It slows things down. It ossifies minds, increases costs, removes genuine accountability, and stifles initiative—all without making weapons systems any better. There might be a good reason for adding each specific layer of management and oversight, but there is no good reason for having all of them. That is, each additional official reform requirement might have made tactical sense when it was introduced, but taken

as a whole, they do not support the overall strategy of improved acquisition outcomes. The cure ends up exacerbating the disease.

All too many official reform efforts fall into this “subtraction-through-addition” category, applying ever-increasing burdens on technology developers without conveying actual value. These approaches are deceptively rational, yet they fail to deliver the promised benefits. Meanwhile, unofficial efforts like Stark’s or Spinney’s never quite get the traction necessary to introduce a large-scale effect and must settle for occasional, individual successes, which are seldom (if ever) repeated.

The history of defense technology development reform is painful to study. It’s enough to make a guy want to find a different line of work, preferably one where there is some possibility of making a difference. Fortunately, I am stubborn and am quite willing to follow Winston Churchill’s advice to “fight when there is no hope of victory.” I explained this position in a June 2006 online article titled *The Joy of Sisyphus*, writing “Problems like poverty, crime, disease, war, and bureaucracy will in all likelihood never be solved. But it is good to fight against them nonetheless. ... There is something glorious about engaging in a hopeless battle against a powerful evil that you have no reasonable hope of conquering. ... Failure may be inevitable, but giving up is not an option.”

When it comes to meaningful large-scale reform, failure may indeed be inevitable. Given the actual historical trends and outcomes of reform efforts over the past 46 years, I am tempted to conclude the acquisition system is fatally flawed and beyond reform. I wish someone would prove me wrong, but that’s what the data indicate. History seems to show that the best we can hope for is to occasionally succeed in spite of the system, when subversive little pockets of revolutionary acquisition guerillas produce weapons like the F-16 or the F-117 over howls of protest by the establishment and the status quo defenders.

The problem is not a lack of intellect or power. Nearly five decades of official reformers were all bright, experienced, highly placed men and women. They understood this business far better than I ever will and, for the most part, had more authority than I could dream of. There was no shortage of brains or clout. There was simply a shortage of correct answers. As far as I can tell, the system has not been fixed because we, as a society, lack the courage, integrity, fortitude, and imagination necessary to fix it. That is, we lack the will to do what needs to be done. The answers are out there if we have the nerve to reject simplistic, complicated, wrong-headed, rationalized, tactical bandages that look better on paper than they do in reality and get people promoted and/or elected, and instead pursue strategic approaches that work in reality and just might get some people fired.

## Stop Pushing the Boulder Uphill

Since more than 46 years of reasonable, intelligent-sounding solutions have failed, perhaps it is time to try some unreasonable solutions. Maybe it is time to acknowledge our persistent organizational failures and scrap all the requirements, regulations, policies, and procedures and get back to something more basic and human. Crazy? Perhaps, but rational hasn't exactly delivered so far, has it? What has delivered? Unofficial reform efforts, led by talented and driven technologists who manage to outflank the official Powers That Be (and usually get crushed in the process).

What if we started all over again with a blank sheet of paper and instituted only the bare minimum of requirements? Or what if we tried to do without them entirely, opening the floodgates to experimentation and discovery? Would acquisition outcomes be any worse than they are today? Remember, we are currently at the bottom of a 46-year decline. Yes, it is possible to make things worse than they are. If we keep doing what we are doing, history tells us we can certainly expect the negative trend to continue. I suspect improvements will require reversing our behavior, decreasing management and formality rather than continuing to increase them.

What if we replaced our current hierarchal pyramid organizational structure with what Gordon MacKenzie (author of *Orbiting the Giant Hairball: A Corporate Fool's Guide to Surviving with Grace*) calls a "plum tree structure" and looked at acquisition organizations as living entities that produce "fruit" instead of timeless, immovable tombs (which is what pyramids are)? What if we imitated the successful unofficial reformers—people like Stark, Spinney, and Boyd—instead of following in the path of failed official reformers? To return to a common theme in my own articles, what if we built a system that relied on trust, initiative, and talent instead of oversight, standardization, and process?

Ricardo Semler did this in his company, Semco, implementing a talent-based industrial democracy in which the counterproductive rule books and unhelpful requirement binders were tossed out of the windows, and capable, dedicated people were allowed to work together and apply their abilities to the tasks at hand. Many other companies around the world, including Toyota, use this approach to great effect, rejecting the fatally flawed Theory X scientific management and Taylorisms [*Frederick Taylor's scientific management principles, developed at the end of the 19th century*] which are, inexplicably, still in vogue in today's DoD, despite their demonstrable and well-documented shortcomings.

Special Operations Command and some classified black-world programs supposedly use a slightly streamlined approach to acquisitions, with a tad less oversight, one

or two fewer reporting requirements, and a little more autonomy. Their outcomes are not worse than the traditional, white-world approach. In fact, dollar per pound, their outcomes are often faster, simpler, and better. Perhaps everyone should be allowed to acquire things that way. Using their methods would be grossly inadequate as a final solution, but it might be a good first step. I seriously doubt it could make things worse.

Things have been bad for a long time, and they are not getting better. Almost half a century of official reform efforts have only aggravated the situation, while successful unofficial efforts tend to get ignored, denied, or punished rather than lauded or repeated. Isn't it time we changed course? Isn't it time to return to "the simple management of complex systems," in the words of Suddarth? Can we find the courage, integrity, and self-sacrificial strength required to strip out the complexity, the delay, and the excessive costs inherent in current programs? Are we willing to honestly assess the stomach-churning history of acquisition reform and face the fact that it has consistently and spectacularly failed? Who will be allowed to state those facts out loud?

As I write these words, the 2008 presidential election is still more than a month away. I have no idea who will be commander in chief by the time this article is published in January 2009, but both candidates campaigned on a platform of change. Perhaps this is a window of opportunity. Perhaps the time is right for real change in the DoD acquisition community. Perhaps a new administration, with fresh eyes and a mandate for change, will seize the opportunity to do what 46 years of reformers have been unable to do. Or maybe a small band of acquisition guerrillas will finally break through and produce the kind of sustained revolutionary change we need. One can only hope.

Somewhere in America, a baby is being born. He or she will grow up, get a degree in engineering, and join the U.S. military. Thirty-five years from now, when I am 70 years old and long-since retired, he or she will be a major and may come across one or two of my articles. I dearly hope there won't be a need for that future major to write an article like this one. I dearly hope this generation can find the courage, integrity, strength, imagination, and will to change the course of history. But if you are reading this in 2044 and things are still bad, all I can say is, "I'm sorry, good luck, and keep fighting."

*Editor's note: In Greek mythology, Sisyphus was condemned to an eternity of punishment in Hades that consisted of rolling a huge boulder to the top of a hill, watching it roll back to the bottom, and starting over.*

---

The author welcomes comments and questions. He can be contacted at [daniel.ward@afit.edu](mailto:daniel.ward@afit.edu).