

**Adding to the Acquisition Alchemy Mix**

I would like to respond to Richard Rippere's article "Acquisition Transformation: Turning Lead into Gold" (*Defense AT&L*, July-August 2004). I enjoyed the article and agree with the underlying philosophy. That said, there are a few points I feel deserve further attention.

Rippere asks, "If the PM knows precisely what the objective required system capability is, then the program doesn't need spiral development. ... So how can the program office evaluate proposals from bidders who equally can't foretell future technologic capabilities but can only propose against the first spiral requirements?"

First, spiral development is not the only evolutionary acquisition method. But enough on that. The assumption Rippere seems to make is that a single contractor taking us all the way through all the spirals or increments of an evolutionary strategy is the only competition strategy that applies to evolutionary acquisition. This is not necessarily so.

Addressing Rippere's question on how to choose between contractors who equally can't foretell the future state of technology (assuming a single contractor strategy): the decision can't be based solely upon a technical proposal. What becomes important then is how the proposers would manage getting to the objective end state. (In a sense, this is Rippere's second out-of-the-box idea.) If we don't assume a single contractor strategy, then the answer is simpler: we don't care. We will re-compete the follow-on spirals.

Closer cooperation with industry and academia is a partial solution. However, Rippere only discusses this in relation to concept development. I suggest that this is not using this idea to its best advantage, which would be to continue it throughout the entire acquisition.

But there are practical and philosophical issues to address. To avoid giving anyone an unfair competitive edge, we have to ensure that discussions take place over as wide a field as practicable. A different communications problem comes into play once we award the first spiral (or phase) of acquisition.

If we are not competing the following spirals, how do we avoid stealing intellectual property and handing it to our contractor to implement? In fact, how

do we entice good ideas from other than our contractor, with the other party knowing it may not reap some tangible benefit?

If we are competing the follow-on spirals, what limits are there in discussing ideas with our current contractor to avoid giving an unfair competitive advantage for the next source selection? Conversely, how much of what is being developed in our ongoing phase can we share with outside parties (our contractor's competitors)?

Now let's turn to the question of whether we carry a single contractor through all the spirals of our acquisition. Granted there are advantages to this concept, but these are also to be gained for non-evolutionary acquisition. Yet this very concept, which has worked well for many in the commercial business world, seems to go against the government's philosophy of competing whenever practicable. Doesn't the idea of a single contractor through all the spirals go against that competition philosophy?

I don't claim to have the answer to all the questions I raise here and am interested in others' takes on them. These are worthwhile discussions that we need to have.

Alex Slate

**The author responds:**

*Mr. Slate is touching on the myriad complexities of the acquisition strategy process. All valid points. He is pointing out there is no single solution acquisition strategy. As we all learned at the Defense Systems Management College: "It Depends."*

**The Dancer and the Piper: Resolving Problems with Government Research Contracting**

In the years following World War II, there were collegial relationships between researchers in government laboratories and scientists in academe and industry. Today, however, the practice is to contract for services, and the governing public laws have become so complex that government project leaders responsible for initiating and managing contracts must have not only an advanced technical degree but also extensive training in finances, contract law, security, document control, ethics, fraud-waste-abuse, technology transfer, equal employment opportunities, small business, historically black colleges, etc. Scientists from academia and industry who com-

pete for these contracts often lack similar training, and this contributes to conflict and confusion when a contract proposal is rejected. There are government management practices that also contribute to post-award disarray, and three are summarized herein together with hypotheses on root causes and suggestions for resolution. The problems discussed are not new, but they have become so pervasive over the years that the authors believe new approaches are worth serious consideration.

### Proposal Evaluation

A persistent problem that faces all project leaders is how to conduct fair evaluations of contract proposals when leading technical expertise doesn't exist within the contracting agency. The most common practice has been to solicit volunteer reviewers from "peers" in the scientific community and then hold the evaluator names anonymous to avoid undue pressure during and after the review. There are three problems with this practice: (1) the "peers" are often competitors who abuse their anonymous position to further personal research interests; (2) they are not always as qualified as needed; and (3) there is no accountability of the reviewers to assure their best performance because their reviewing effort is a "donated" service.

Our suggestion is for the project leader to recruit higher levels of talent among the "peers" by offering financial payment to those who agree to perform the review and who are both free of conflict of interest and willing to publish their names and credentials.

### Management Bias

Another nationally pervasive problem in competitive contracting occurs when a bidder who fails to win an award believes the competition was unfair because the project leader was biased. Reputations about bias invariably arise when one person in a competitive pool is perceived to have greater access to a project leader than others. Although project leaders are honor-bound to behave according to the agency standards of conduct, experience has shown that it is best for upper management to verify as well as to trust.

Our recommendation is to have project leaders present frequent in-house reviews—and even for independent offices, such as the legal office, comp-

troller, contracts office, and merit pay supervisors—prior to the award of a contract.

### Level of Funding

In recent years, the Department of Defense, National Aeronautics and Space Administration, National Institutes of Health, and other government agencies have been identifying gaps in the U.S. technology base that are critical to their missions. The solution in many of these agencies has been to set aside limited undesignated funds and issue generic broad agency announcements soliciting open research proposals from scientists in academe and industry. A significant problem with this practice has been a tendency to spread the funding too thinly, as a result of which, the research is incomplete, or there is no effective technology transfer, or the investment is wasted. The root cause among bidders is that the primary focus is on developing the technical content of the proposal, and cost estimation is a low priority; whereas the problem with project leaders is that they tend to spread the available funding over too many studies.

Our recommendation is for project leaders to abandon their traditional go-it-alone approach and team with other government agencies with common interests to lay out a life-cycle plan that will ensure the new technology is not only studied, but also developed and transferred into a useful government or industry application. For example, a recent U.S. Army research program (joining of metals) was forwarded to a U.S. Navy project leader with mission funding for developing process controls and then to a U.S. Air Force project leader for commercialization in a small business program. Since activity of this nature is beyond a project leader's normal job description (and is difficult, time-consuming, and prone to failure), we recommend that upper management set up a reward system for those persons willing to look outside the envelope.

**Dr. Ronald W. Armstrong**, professor emeritus, University of Maryland, College Park, Md.

**Dr. Roger B. Clough**, (retired) National Institute of Standards and Technology, Gaithersburg, Md.

**Dr. Laszlo B. Kish**, associate professor, Texas A&M University, College Station, Texas.

**George K. Lucey**, project leader (retired) Army Research Laboratories, Adelphi, Md.

## Thought-provoking Writings

### Heroics and Process Article Timely

Thanks to Capt. Quaid and Capt. Ward for their latest article on heroes vs. process (*Defense AT&L*, September-October 2004). I believe the people side of projects, particularly heroes vs. process, is a critically important issue. We are zealots in NAVAIR on process improvement—capability maturity model (CMM) and capability maturity model integration (CMMI)—and this article is very timely.

In the ongoing struggle between heroes and process, I think there is an answer: After the heroics, the heroes should document/improve the process based on their act(s) of heroism. Many years ago, I worked in a large computer facility. The computer operators were required to call the systems analysts—at home when necessary—to diagnose and authorize restarts of the computer. The heroes (the systems analysts) were getting tired of calls in the middle of the night for recurring routine problems where all they said was, “Okay, restart the computer.” We worked with both the computer operators and systems analysts to define routine vs. non-routine situations and documented under what conditions the computer operators could restart the computers without having to call the systems analysts. This worked well, and everyone was happier.

It reminds me of the Lone Ranger. He rescued people, but never left them better off to defend themselves against new bad guys. Lone Ranger was absolutely a hero, but maybe he could have helped with process by also giving the poor helpless ranchers guns and bullets and teaching them to shoot!

**The authors respond:** *We think you're definitely onto something about the need for heroes to share their knowledge (i.e., the old saying about teaching*

*a man to fish...).* One of the best things heroes can do is spread their heroic attitude and establish more heroism. One thing to keep in mind: There is something special about a hero that often can't be reduced to a process or checklist. We just need to be careful that our attempts to document and imitate heroism don't end up creating a less effective, watered-down version.

### Management Fads Resonate

I also enjoyed very much Wayne Turk's “Management Fad of the Month” (*Defense AT&L*, September-October 2004). I had to chuckle when I read through the list of fads you mentioned, as I do remember most of them. Right now, my command is into “lean” thinking and “Six Sigma.” It has worked well with materiel and production, and we are hoping it will also work well with knowledge workers.

The article reminded me of Dr. Stephen Covey's time management matrix and how different activities are based on urgency and importance in different quadrants. All the management fads mentioned were in Covey Quadrant II: important, but not urgent. These are the hardest activities, since we must act on them, not have them act on us. They are also the hardest activities to sustain since the results are not usually immediate, and thus they must be long-term activities.

Perhaps the reason management fads don't seem to work is just that: Managers don't sustain them long term. Before seeing good results, another fad comes out, and they restart the cycle. Thanks for codifying this important issue. Hopefully it will help managers make these valid techniques really work rather than just wasting time and effort with them.

Al Kaniss, Naval Air Systems Command