From the Publisher

Factoring Process Improvement into the Awarding of Sustainment Contracts

Lt. Col. Joe Jarzombek
ESIP Director

Reductions in procurement funds mean that most of the U.S. military's year 2010 systems are already in our current inventory. Because modification of software-intensive systems provides the most promise for increases in system capability and flexibility, many 2010 requirements will be achieved through sustainment of existing systems. With so much being dependent upon the successful upgrade of existing systems, perhaps it is time to assess how process improvement efforts might be better factored into "best value" comparisons associated with the award of sustainment contracts.

Process improvement requires an investment of time and resources, which in turn raises direct labor and overhead costs. Development organizations make this investment because their increased efficiency and quality translate into higher profitability and more follow-on contracts. Because such organizations usually produce systems in less time and with fewer defects thus lowering development costs, process improvement can be factored into bids associated with new system deliveries.

On the other hand, sustainment contracts normally involve "level of effort" tasks and are negotiated based on labor rates for defined periods and funding levels. Therefore, labor rates weigh heavily in the determination of best value, and unfortunately, process improvement efforts are often difficult to quantify relative to labor rates. Indeed, an organization that uses low-skill-level employees and invests little in process can offer low labor rates. However, studies demonstrate that those same organizations take longer to deliver capabilities that have more post-deployment defects. Contracts awarded to low-labor-rate organizations can easily result in higher total costs and inferior results.

Most source selection teams understand that process improvement contributes to "best value"; yet they also know today's "protest prolific" contracting environment makes it difficult to award sustainment contracts to higher-labor-rate organizations—even those likely to provide the best value—without quantifiably objective criteria such as industry standards. This has fundamentally dire consequences for the military's 2010 capability unless sustainment contracting policies and practices accommodate provisions for process improvement.

Integrated capability maturity models (as opposed to single discipline models) provide the best process improvement guidance for organizations that provide post-deployment support. For fielded systems, sustainment includes additional acquisition, development, modification, and maintenance activities, cutting across disciplines that are often compartmentalized within different departments. Therefore, enterprise-wide process improvement is critical to sustainment organizations. That is why the Capability Maturity Model Integration (CMMI) effort will better support the institutionalization of enterprise-wide process improvement (see CMMI at http://www.sei.cmu.edu). The Federal Aviation Administration (FAA) has already demonstrated the value of using an integrated CMM (iCMM) with staging guidelines (see FAA-iCMM® Web site and "Smart Buying with the Federal Aviation Administration's Integrated Capability Maturity Model" on page 15 of this issue).

Perhaps integrated process improvement efforts might help support the creation of a labor rate standard that gives higher-maturity organizations due credit for their higher efficiency. This would require documentation of the increased productivity of organizations with higher maturity ratings. Many organizations use the industrial engineering "standard hour" of work to estimate and price a level of effort. We need a method to quantify what a "standard software engineer" can produce in one hour in a "defined capability and maturity environment." If this could be determined, the software industry might be able to tie a "productivity compensation factor" to the organization's maturity to equalize unfair bidding advantages between competing organizations of different maturity levels. For example, the standard could authorize CMM Level 1 organizations to budget efficiency at 95 percent, Level 2 at 100 percent, and through to Level 5 at 150 percent. Some could argue that these numbers are not even close to the increase in productivity; however, it shows the need to invest in discovering what the real numbers are.

More widespread recognition is needed to substantiate that overhead associated with process improvement, while it increases labor rates, reduces the cost of sustainment. Merely awarding sustainment contracts based on lowest labor rates could have irreparable consequences for our 2010 capabilities. ◆

Letter to the Editor

Summarizing Meetings Is Vital

CROSSTALK is beneficial, and I endorse it every chance I get. I really enjoyed "Rules a Program Manager Can Live By," *July 1998*. I especially identified with Step 7, "Summarize Meetings." All too often, people get burned by not doing this. Everyone seems to come away with something different. I have been emphasizing the importance of summarizing meetings, and quoting your article.

Al Kaniss
U.S. Navy
Patuxent River, Md.