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ALDRIDGE PUBLISHES NEW POLICY ON CONTRACTOR INVESTMENT IN DEFENSE PROGRAMS

PROGRAM MANAGER

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- CONTRACT APPEALS PROCESS**
- PROGRAM MANAGEMENT TRAINING THROUGH SIMULATION**
- VALUES-BASED LEADERSHIP**
- REDUCING TOTAL OWNERSHIP COSTS IN DoD**
- 2001 NUNN-PERRY AWARDS**
- DOT&E TESTER OF THE YEAR AWARDS**

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DAU Welcomes New USD(AT&L) to Fort Belvoir Campus



PROGRAM MANAGER

Vol XXX, No. 4, DAU 163

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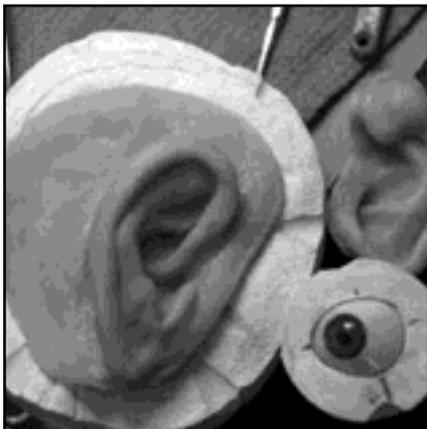


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Aldridge Delivers Keynote Address During First Official Visit to DAU-DSMC

“We Should Be As Honest and Truthful as We Can When We Put a Budget or Weapon System Before Congress”

Editor’s Note: If one sentence could capture the mindset of the new Under Secretary of Defense for Acquisition, Technology and Logistics E.C. “Pete” Aldridge, it would probably be: “Tell the truth and let the chips fall where they may.” The Defense Acquisition University (DAU) and the Defense Systems Management College (DSMC) welcomed Aldridge to their Fort Belvoir, Va., campus June 5, 2001, as keynote speaker for the DAU 10th Anniversary/DSMC 30th Anniversary celebration. The occasion marked his first visit to DAU-DSMC in his new capacity. In a 30-minute presentation followed by a candid question-and-answer session, Aldridge presented his new theme, five primary goals, and overall priorities. For those *Program Manager* readers seeking a clearer understanding of the new boss and his initiatives/priorities, the article is “must” reading.



This is my 14th day on the job – 14th and a few hours. So bear with me, because it’s been quite a circus ride for the last couple of weeks. As you know, the Secretary of Defense is undertaking a review of the [Department] strategy; he’s just finished the FY 01 budget supplemental that’s been given to Congress; we’re in the process of finishing an FY 02 budget amendment that will go to Congress by the end of the month; and we’re working on the QDR [Quadrennial Defense Review] for the FY 03 budget. All of this is going on simultaneously

while many of us are trying to learn our jobs – without much help. A lot of the positions have not yet been filled. And while we have some very capable acting people in the jobs, we’re still lacking the Presidential appointees and others.

As Frank [Anderson] pointed out, this is my fifth time in the Pentagon, or as some people have said, “You’re obviously going to keep doing it till you get it right.” But I have had the opportunity to work in many parts of the Department. I have worked for Don

Rumsfeld on previous occasions when he was Secretary of Defense. I was running the Program Analysis and Evaluation Office at the time. I got to know him very well. I got to work with him, and I’m very comfortable in working with him now – quite honored to have the privilege of doing so again.

During the time that I came into the office before my confirmation, I did have a chance to think about some things I wanted to do. I could listen, but I could not make any decisions; I could give only informal advice, and I couldn’t sit in the

Aldridge is the Under Secretary of Defense (Acquisition, Technology and Logistics), Office of the Secretary of Defense, The Pentagon, Washington, D.C.

office in which I was eventually going to sit. But I could think about some ideas and things that we could accomplish for the future.

A New Theme

My first thought was something about a theme for the office — what's going to be the direction or vector that this office will follow? First, I considered the issue of *Acquisition Reform*, which of course has been on everyone's mind over the past seven years. A new term called *Transformation* has also been part of an ongoing theme throughout the Department. But I don't particularly like the term *Acquisition Reform* (and that is strictly my personal view). It sounds like I've done something bad; therefore, I must "repent" and "reform." And since I didn't like the term, I've decided to move into some-

Goals

I also had the opportunity during my thinking process to try to determine, "What are my goals? What are the goals of the office going to be over the next several years?" I thought we would start by writing down three or four — there are literally hundreds of areas and opportunities. It is a target-rich environment in the acquisition field for improvement as everybody in this audience certainly knows. But I wanted to focus on those things which would establish *my* priorities, and *my* direction, and *my* commitment, and also reflect the activities of the staff and the multiple agencies that carry out this acquisition business.

I started with four goals — I couldn't make it in four, so I ended up with five.

several mistakes; we've had cost overruns; and we've slipped schedules. We do that too many times because we tend to go to the Congress with an optimistic estimate of what our programs are going to cost. And as a result of that, we get micro-managed. Many of the problems — micro-management of funds that are earmarked for various activities, the schedules and milestones we have to do, and the reports that we have to write — are the result of a lack of credibility with our process. And I want to do something about that.

DAB PROCESS

I want to improve the Defense Acquisition Board process to eliminate many unnecessary meetings; we're, in fact, going to revise the Board membership to include the Service Secretaries. That sends out a very important message because the Service Secretaries in this Administration are very much acquisition-oriented. It was part of the list of qualifications for being appointed as one of the Service Secretaries. The Secretary of Defense established what qualifications he wanted for the Service Secretaries: he wanted them to have industry experience and he wanted them to have a knowledge of the Defense business. And they all have that — *in spades*. I believe they're going to be much more "hands-on" in the acquisition and logistics support business than we've seen perhaps in past Service Secretaries.

EVOLUTIONARY ACQUISITION

The new 5000-series documents include Spiral Development, or Evolutionary Development as a means to cut down cycle time, reduce risks, and reduce costs. These are the kinds of things we're going to be working on, including realistic pricing of our programs. We're going to, again, try to reduce cycle time both in the acquisition business and in the logistics business, and look at performance-based contracts.

E-BUSINESS SOLUTIONS AND E-LEARNING

And I believe an initiative, which certainly is reflective of DAU and DSMC, is the e-Business application across the Department. Electronic business can im-

"Sometime this summer we'll finalize the Department's future strategy and direction. At that point, we can rationalize those weapon systems that support the new strategy — and perhaps those that do not — as well as the supporting infrastructure."

thing called *Acquisition and Logistics Excellence* — we're moving from *Acquisition Reform* to *Acquisition and Logistics Excellence*.

Hundreds of studies have been conducted on Acquisition Reform issues/Logistics Reform issues, and I believe we know what to do. Now it's just a matter of implementing what we've learned. Therefore, the theme *Acquisition and Logistics Excellence*, I believe, is a better reflection of, "Let's get on with improving capabilities and doing those things which we know are right."

That's my theme — *Acquisition and Logistics Excellence* — and you're going to hear a lot about that from a lot of people I'm sure over the next months and years. We sincerely hope it will be the right message we want to put forth.

Let me go through those and explain each one. Some of you in the audience may have already heard them. I see John Douglass [former Navy Acquisition Executive] in the audience. I recently visited with the Aerospace Industries Association in Williamsburg and had the opportunity to talk with John and other CEOs. And I think it was mutually beneficial.

Goal 1

The first goal is *to establish the credibility and the effectiveness of the acquisition and logistics support process*.

TRUST

If you look at our track record on the Hill, you will find that many of the problems that we're facing in the acquisition business are, I believe, because the Congress doesn't trust us. We have made

prove the efficiency and quality of our performance, and I am particularly interested in expanding our work on e-Business solutions. Certainly, e-Business learning is an important part of that process.

Goal 2

The second goal is *to revitalize the quality and the morale of the Acquisition Workforce*. Over the years you have all experienced the reductions in the Acquisition Workforce. And I believe the message that comes from those reductions is that maybe you're not as appreciated as you should be. I believe we need to revitalize this issue, because being a smart buyer is absolutely essential for the Acquisition Workforce and the government as we head into the future. We need to work on those things that can bring the quality of the workforce up, improve their morale, and certainly training and education is one of those critical areas.

The other issue of course as we all know, is that the Acquisition Workforce is aging. The distribution of the workforce is such that there are many people – something like 50 percent of the Acquisition Workforce – eligible to retire in the next four or five years. We need to do something about that, and we need to bring new people into the workforce. We know we have abilities to hire in some of the Laboratories for new scientists and engineers, but I'd like to expand that across the entire workforce to see what we can do to revitalize the hiring process, improve the hiring process, and make it more rapid.

We also need to really think through a Strategic Plan for the workforce. There's an ongoing expansion of that where David Chu, who was recently sworn in as the new Personnel and Readiness Under Secretary, and I have been tasked by the Secretary of Defense to look at the civilian workforce across the entire Department of Defense, and we'll be working on that. The Acquisition Workforce obviously would be an element of what we can do there. And I think the Secretary is looking for some new initiatives for the Department in that re-



“The theme Acquisition and Logistics Excellence, I believe, is a better reflection of, ‘Let’s get on with improving capabilities and doing those things which we know are right.’”

gard. Again, continuous education is an important part of this particular goal.

Goal 3

The third goal is *to improve the health of the industrial base*. If you talk to people on Wall Street and ask them what they think about investing in the defense industry, you'll find some very negative people. They'd rather invest their money in bonds than invest it in the defense industry. I think that's wrong. If we're to have the finest weapon systems in the world for our troops, we have to have the finest industry in the world as well. I believe we must realize that the industry

objective of profit (that's why they're in the business) can and must be consistent with our own objectives of having the very finest weapon systems we can. We have to appreciate their objectives; they have to appreciate ours.

And I think we can do a lot to improve the health of the [Defense] industry, which is good for us and good for them. It also makes them more competitive; it attracts investment so they can invest money in new ideas; and if the industrial base is healthy and profitable, they acquire and retain very good talent. So the health of the industrial base is good for industry and good for us, and I'm going to be doing a lot of things to support that initiative.

In fact, one policy I recently directed was that the Department of Defense would no longer co-fund or insist that industry co-fund development programs within the Department. Industry was using Independent Research and Development [IR&D] money to pay for cost increases in DoD development programs. I thought that was wrong. We should pay for these cost increases, and industry should not have to do that. [See “Aldridge Publishes Policy on Contractor Investment in Defense Programs,” p. 28, this issue.]

We're also looking at other things for industry such as incentives for reducing excess capacity, looking at the profit policies to make them more commercial-friendly. We're interested in small businesses, making sure that the small business sector of our industrial base is also in good health. We spend almost \$50 billion a year on small business – it's a major part of our defense investment. And we need to make sure that small businesses have the opportunity of providing quality products. And again, looking across our contracts to make them more commercial-like is certainly something that we ought to do.

Goal 4

The fourth goal is that we must *rationalize the weapon systems and infrastructure that will support the new strategy that's being developed by the Department*. While

that's still an ongoing process at this particular time, sometime this summer we'll finalize the Department's future strategy and direction. At that point, we can rationalize those weapon systems that support the new strategy – and perhaps those that do not – as well as the supporting infrastructure. And maybe for the first time, if we have to go through a BRAC [base realignment and closure] process again, we can identify and have a strategy that supports the BRAC analysis rather than just having some type of a one base vs. another trade-off. But I believe it is important that we clearly define weapon systems and infrastructure in the new strategy.

Goal 5

The fifth and last goal is to *initiate those high-leverage technologies that provide the warfighting capabilities and strategies of the future*. What I'm looking for here is to initiate those war-winning technologies – like Stealth was many years ago – which really make a difference in combat operations.

As we look over the past eight or nine years, we've had about an 11 percent reduction in our science and technology [S&T] budget. We need to reverse that trend. We need to build back the S&T budget and I believe if we do so, we can start doing some new, innovative things in our basic research program; we can increase the number of Advanced Concept Technology Demonstration programs, and we can get DARPA [Defense Advanced Research Projects Agency] back on the leading edge of technologies.

I think this is the kind of direction in which we have to move. If you've been reading in many of the Presidential statements about the war-winning capabilities and the weapons of the future, I'm seeing some encouragement from the Administration that this is certainly a goal we would all like to achieve.

How Do We Achieve These Goals?

First, I believe active and decisive leadership from the Office of the Under Secretary for AT&L [Acquisition, Technol-



“An initiative, which certainly is reflective of DAU and DSMC, is the e-Business application across the Department. Electronic business can improve the efficiency and quality of our performance, and I am particularly interested in expanding our work on e-Business solutions. Certainly, e-Business learning is an important part of that process.”

ogy and Logistics] is very important to making these goals achievable. We need to change the environment in which we

operate. I am streamlining the DAB process and getting the Service Secretaries involved so that the decisions are made at the DAB. There is no need to go off and staff-out DAB decisions after-the-fact.

I also plan to implement more use of metrics to measure progress. We're in the process right now of identifying the metrics that would go along with these goals, how we measure them, and how we report them. I have a plan for two levels of metrics: one would go to the Secretary of Defense with such broad issues as looking at acquisition cycle time, cost overruns, logistics and customer wait times – things that would identify how well we're making the five goals work, and how well we're performing across-the-board. The second level of metrics, which will be much more detailed, I will look at personally on a periodic basis.

I was impressed with the briefing I just heard from Frank Anderson [DAU President]. I think that DAU-DSMC can contribute to these goals. Together, DAU and DSMC are the cornerstone of our training and education of the AT&L workforce. I was impressed with the number of graduates – 120,000 from DSMC and over 300,000 from all of DAU. You're training essentially almost all of our PEOs [program executive officers] and program managers who make and deliver weapon systems to our forces.

But I also know that you're not resting on your past; you're making great strides in the modernization of the acquisition educational process to meet the needs of the future. And I'm very impressed with these initiatives. I particularly was impressed with the strategy-driven customer focus; training concept; expansion of e-Learning, which is consistent with the direction of e-Business; case-based training; and, of course, the strategic alliances that you've cultivated across all the universities, industry, and elsewhere.

Your challenge in the future is to ensure the excellence of the acquisition educational process. Thank you very much – and Happy Birthday!

Straight From the Top

ALDRIDGE SPEAKS OUT ON A NUMBER OF ISSUES FACING THE ACQUISITION COMMUNITY

Q Over the years it appears that the development community has changed a great deal, the requirements community has changed as well, but we struggle sometimes with changing the PPBS [planning, programming, and budgeting system] process. What suggestions would you have to help bring our “siblings” along in this endeavor?

A It’s going to be very hard as you well know. The PPBS process has been ingrained in the Department of Defense for a long time. It’s interesting to note that this year, with the change in Administration and delay in the QDR, we’re putting the summer issue cycle process together with the budget process, and I think this is going to be a very interesting test as to whether that will work. Because I believe that streamlining of the PPBS is one way to get this done, and maybe rather than doing the summer cycle and fall cycle as separate, complete entities we could, in fact, *should*, bring those two issues together.

I also think we need to get our DAB process more in line with the PPBS cycle. We tend to get out of cycle and when we do, issues that the DAB has decided upon and issues it may be implementing might be raised during the budget reviews, and therefore get out of cycle. Issues could change because of budgets, not because of logic and rationale applied to the program. There appears to be a mismatch of timing here. If we could essentially reduce the PPBS to a one-cycle period, I believe a lot of these problems would go away. And I believe we have the mechanisms and the computer programs that can do that. But we’ll see how this is going to work this year, and we’ll probably have a lot of lessons learned from this cycle to make it better.

Q Your preference for the theme Acquisition and Logistics Excellence is outstanding. Do you see a need to assess how well



“Together, DAU and DSMC are the cornerstone of our training and education of the AT&L workforce.”

the Acquisition Reform initiatives of the last seven years have taken root?

A I think we ought to assess ourselves all the time. Yes, I believe we should. I believe a lot of good ideas were created during this process; there are many more that could be implemented. Yes, I think an assessment of how well we’ve done would be valuable. You always learn from the past, and if you have something to show in the way of Acquisition Reform lessons learned over the past seven years, I’d like to see it.

Q Do you see a need for reform in test processes and requirements?

A Absolutely. Let me talk to requirements first because I think that area tends to fall out of this. If we are serious about this evolutionary spiral development, we also have to be consistent with the requirements that lead to the weapons systems that accept spiral development. We almost have to have a spiral requirements process.

That’s a problem that I’m beginning to see the Joint Staff and the JROC [Joint Requirements Oversight Council] process pick up. That has not been the case in the past where the requirement was, “Give me the ultimate answer at the right time.”

And of course we could put F-22 in that category. That’s basically what we did. We knew what we wanted ultimately, and it’s taken us a long time. I was the source selection on the downselect for the Advanced Tactical Fighter in 1987. And we still haven’t gotten [the F-22] into production. The Joint Strike Fighter is a program where we are thinking about spiral development very carefully – Global Hawk is certainly another one. Spiral requirements have to be consistent with spiral development.

The testing process I believe is also the same way. In spiral development, you're not testing the ultimate configuration — you're testing a slightly different version of it. So maybe we ought to think about spiral testing, spiral development, and the spiral requirements process as all being intertwined.

Q

There's been some comment about trying to make industry more profitable. What kinds of ideas might you have for further cooperation between industry and government?

A

Generally, my ideas encompass several areas. One is this idea of forcing industry to co-develop or pay for development of a defense program. I think that's a bankrupt practice. It lets us [DoD] "off the hook" in the sense that we're taking the profits from industry to bail us out of underfunding a particular development program. I believe that's not the kind of philosophy that we ought to have. If we want a program, we should be able to pay for it. And industry should make a profit on what we buy from them; they're not going to be in business otherwise. That's their objective. They have stockholders to answer to, and we have to respect their objective.

There are some things we can and need to do, for example, in the removal of excess capacity. What normally happens is a company reduces a factory that is no longer producing something, and we immediately renegotiate the overhead rate so the government gets the savings. What we need to do is share the savings with industry for a couple of years. The plan, or the idea, is that the first year we'll share 50/50 with the savings, and then let that be decreased over a period of time — say after five years. Then it goes down to a normal negotiating rate. In the profit policy, we actually pay industry to make more money for excess facilities. So we need to take that equation out of the profit determination equation.

Also, I think we have to recognize that many of our businesses are not interested in doing business with the Department of Defense. I know Hewlett Packard for one "just says no" because they don't want to put up with the burdensome regulations and the low profit margins. I think we have to think more in terms of commercial-like contracts, which will attract to the Department of Defense those advanced technologies that exist in the commercial sector. We're not going to do so by having very low profit margins. We've just going to have to recognize that if we want the technology, we're going to have to pay for it. And I believe there's a fair, equitable way in which we can do that for both sides.

Q

Sometimes the issue of the acquisition budget can result in failure to budget for contingency operations or overruns in operations and support. Do you see any way to address those issues?

A

First of all, there's always going to be the situation where there's an unpredicted contingency, and that is what a supplemental [budget request] is for. Unfortunately, we are budgeting for contingencies that are somewhat ongoing. In the FY 02 budget preparation we're working on right now, we're making assumptions that we will not ask for an FY 02 supplemental. We're going to pay it all up front — the full thing — including the contingency. But I think the idea that we can eliminate supplementals altogether will not happen. At some point, there will be a real emergency — and that has to be funded.

However, on the other hand I believe we should be as honest and truthful as we can when we put a budget or weapon system before Congress. And that includes putting sufficient management reserve and margin in the program that can accept some uncertainty that will undoubtedly exist. Now that is extremely hard, and you've got to get the Comptroller "off your back" so to speak, because the Comptroller will be the first one to take that reserve away from you.

Nevertheless, I believe truth in advertising and truth in pricing of programs has to be an essential part of everything we do, which gets back to the issue of credibility. We run over to Congress every six months asking for cost increases in programs we've underpriced. We need to get away from that practice. That means, as you well know, that we won't be able to put as many programs in the budget as we would have otherwise. But my view is, "that's OK." Let's fund the ones properly that we can, and end this practice of running back to Congress when we know we're going to have a problem. If shortfalls can be absorbed within the Reserve, I believe our credibility will come back.

Q

You mentioned increasing the role of DARPA — would you briefly discuss DARPA's role in transitioning technologies?

A

We're in the process right now of looking at the FY 02 budget and trying to increase the S&T budget. If the S&T budget does get increased for 02, DARPA will get a substantial share of that as well as basic research. In that case, what we need to do is put DARPA back out on the leading edge of technologies. These additional S&T funds will allow that to happen. And as part of that, I talked to the new DARPA designee, and this is one of the things we're talking about — how we would get transitioning technology back to the Services faster. An increased number of ACTDs [Advanced

Concept Technology Demonstrations] can also do that, but I think we need to work with the Services on both sides so that we know when the technology is ready for transitioning, and the Services are prepared to receive it.



Accountability – what are we going to do to hold people accountable for some of these programs and build credibility?



First of all, I think we need to get the regulation out that tells program managers how to build their programs from the beginning. In it are all the factors that they really need to know like interoperability, making sure they have a good test plan, making sure their command and control activities are all part of their program when they come forth, and they've realistically priced their program. Now once they've done that, I think it's up to the Service Acquisition Executives to hold their program managers accountable for their programs. Again, be truthful up front. If they're truthful up front and price their programs properly, I think they can, in fact, deliver.

We [DoD] deliver a tremendous performance. Everywhere you look, we always have good performance. Cost and schedule may not look very good, but performance is always great. I think people need to be accountable for all of them. We just have to watch it.



The role of government as being a smart buyer – where is the balance between the government retaining the knowledge base internally among its own ranks vs. transferring some of that responsibility to industry?



My personal view is that I think the pendulum has swung a little too far and we need to bring it back to having the government retain the responsibility of being smart buyers. Now how we get the people to make that happen is a tougher question, because we're going to have to find a way to compete with industry for those quality people. One way we do that obviously is by giving them great jobs to do – exciting things to do.

In the direction we're going, I think we're on the verge of starting the new transformation of our future workforce. But we have to pay them competitive wages and have a process for hiring them that's not burdensome to the individual people who are directing some of these laboratories and agencies that are hiring.

This is part of an issue we talked about earlier. Congress a year ago gave the authority to the Defense Agency Directors to hire with streamlined processes. My understanding

is that it was not exercised within the Department of Defense to allow them to do that. I think that's crazy. I talked with the new Personnel and Readiness Under Secretary, Dr. David Chu, about revising that and getting us authority to proceed in that direction. We need to look at that from an overall point of view – the overall Acquisition Workforce, not just those in the laboratories. I think that's something we need to do – we've got to become competitive with industry, and we're not going to have smart buyers if we don't.



You've been a senior official at OSD; you've been a Service Secretary; now you're back as Under Secretary; and you've seen the view from industry as well. We know recently on a couple of programs, DoD has gotten in trouble and you've announced that we're going to take this back to OSD [Office of the Secretary of Defense]. When industry looks at all this, and when they look at the quality of people DoD puts in as the Service Secretaries, we see a lot of good news. We see some people with real savvy, knowledgeable of the internal workings of the Pentagon as far as what works and what doesn't work. But I think it might be helpful to the group here today if you could tell us a little bit about how you use your relationship with the Service Secretaries and the Service Acquisition Executives in holding them accountable once you agree on the DAB number and commit to living within those resources.



The relationship between the Service Secretaries and me is that I'm going to hold the Service Acquisition Executives accountable. As it relates to some of the more recent actions on a couple of programs we reviewed and elevated back to essentially AT&L responsibility – one was obviously the V-22, which was a program that had experienced some problems. A blue ribbon panel had made a recommendation to slow the program down to reinstitute a wider variety of testing activities. In the process of looking at that program, it was of interest to the Secretary of Defense, the Deputy Secretary of Defense, and me to be a little more involved with the decision as to where that program is going. And at that time, we didn't have any Service Secretary positions filled, unfortunately, so the decision was to elevate that decision process back up to me.

As we go through this revision of the V-22 program, we've got a couple of technical activities underway that are going to happen over the next 90 days. They're going to come back and report to me. We'll make a decision on the program, and at that point we will take it back down to the Service activities. The visibility of that program is so high we thought it was appropriate to do this.

Another activity was the Chemical Demilitarization Program, a \$15 billion program that's associated with some activities on getting rid of all the chemical weapons. We

were perceived by Congress as letting that program languish a little bit, and we did find some problems. Therefore, I elevated that decision, again from the Service Secretary (in this case Army) back up to me, to take a look at the program, lay out a direction, and then give it back to the Service Secretary.

I think there is going to be a much closer relationship between the Service Secretaries and me, and I'm going to be turning to them mostly, except for some very high-visibility programs. The F-22 is one coming up as a matter of fact. These type programs are of such high visibility that basically they're looking to the Secretary of Defense to give them direction. But once the programs are going and they're operating efficiently and effectively, they are going to be given back to the Service Secretaries to implement. We shouldn't be elevating every decision for programs that are being run correctly; perhaps, that's an incentive in and of itself – that when they're being run correctly, they're on cost, on schedule, and on performance, there's no reason to elevate the decision. But when they get into trouble, it's probably best from an overall Department of Defense point of view, that someone pick that program up, and that would have to be my responsibility. I am ultimately responsible to the Secretary of Defense. Even though I've delegated acquisition to the Service Secretaries, still, "the ball rolls over here." The Secretary of Defense looks to me for those things, and I'm going to have to explain why I have done the things I've done, one way or the other.



You've talked a lot about the acquisition cycle and leading-edge technology. I'd like to hear some of your ideas about the other layer of your responsibilities – logistics. It's a large driver of total operating costs out here, and I'm just interested in how to integrate it with acquisition.



You're quite right. I did focus on acquisition. I didn't mean to. When I'm talking to my staff, I talk about *Acquisition and Logistics Excellence* – both of those are equally important. And I think we can do some things in logistics that improve our support. One is measuring what's important, and that is how fast you can get a part to the guy on the flightline. And we're looking at customer wait time as a new metric to do that.

I spent about five hours at DLA [Defense Logistics Agency] a couple of weeks ago. And I was very impressed with the

things they have ongoing out there. Their business systems, particularly the ERP [Enterprise Resource Planning] System that they're implementing, are leading the Department of Defense as far as I can see. They're privatizing as much as they can to drive their overhead costs down, and they're improving the efficiency of how they're managing their people.

But I think there's a wide variety of things we need to look at, both in the technology and how we reduce our footprint. We're actually looking across our whole depot and logistics support system with a long-range plan as well, and that's in development. We hope to have it finished before the end of the year.

Logistics is equally up on our radar screen, and I hope I did not imply that it's not important. It accounts for a lot of money out of our defense budget, and we need to manage it properly.



Your new 5000-series regulations that have recently been published provide for accelerated transitioning of items into the field. I've noticed that with the new RFPs [Requests for Proposals] that are coming out, even with some advanced technology items and with some mature technology items, there's still this effort to keep things in competition, even though it appears that they're ready to go into procurement earlier. Do you plan on putting out any guidance that clarifies when they can enter into procurement other than what's in 5000-2? It looks like program managers and program executive officers are inhibited by this requirement to keep competition, even though the items may be already developed or mature enough to enter later.



I'm unfamiliar with the provisions you speak of, but I believe the best approach would be to examine each procurement on a case-by-case basis. I'm all for competition, but when it's time for competition to be over, it should be over. Let's get on with it. I see no advantages in keeping competition beyond when it looks like competition should be over. I apologize – I can't respond to that in any direct way. But if we can reduce cycle time and keep the competition up – again, I'm all for it.



Eight Receive Defense Environmental Security Award

Eight winners of the Secretary of Defense Environmental Security Award were congratulated today by David R. Oliver, Acting Under Secretary of Defense for Acquisition, Technology and Logistics, for their outstanding achievements in natural resources conservation, cultural resources management, environmental quality, pollution prevention, and environmental restoration. Award recipients include:

DEPARTMENT OF THE ARMY

U.S. ARMY AIR DEFENSE ARTILLERY CENTER AND FORT BLISS, TEXAS; CULTURAL RESOURCES MANAGEMENT – INSTALLATION AWARD

Recognized for the cost-effective resource preservation and maintenance of its pre-historic and historic archaeological sites.

CULTURAL RESOURCES MANAGEMENT PROGRAM TEAM, FORT MCCOY, WIS.; CULTURAL RESOURCES MANAGEMENT – INDIVIDUAL/TEAM AWARD

Recognized for its proactive government-to-government relationship with the Ho-Chunk Nation that enables the installation commander to consult directly with Tribal leaders, and the effective use of new technologies in their archaeological site predictive model.

U.S. ARMY TRANSPORTATION CENTER AND FORT EUSTIS, VA.; POLLUTION PREVENTION – NON-INDUSTRIAL INSTALLATION AWARD

Streamlined hazardous material procurement procedures; developed an environmental awareness Web site; completed a new recycling center and planned a new paint facility [that] will eliminate approximately 233 gallons of paint and paint-related materials, 955 pounds of volatile organic compounds, and 1,195 pounds of particulate emissions annually from tactical vehicle painting.

DEPARTMENT OF THE NAVY

NAVAL WEAPONS STATION CHARLESTON, S.C.; NATURAL RESOURCES CONSERVATION – LARGE INSTALLATION AWARD

Used a variety of innovative and cost-saving methods toward resource management and protection, environmental education, and outdoor recreation.

PEARL HARBOR NAVAL SHIPYARD AND INTERMEDIATE MAINTENANCE FACILITY, HAWAII; ENVIRONMENTAL QUALITY – INDUSTRIAL INSTALLATION AWARD

By integrating environmental controls into current work practices without adversely

impacting cost and productivity, the team saved more than \$4 million in fiscal 1999 and 2000 by reducing waste generation by 28 million pounds and air emissions by more than 40,000 pounds.

MARINE CORPS BASE CAMP BUTLER, OKINAWA, JAPAN; ENVIRONMENTAL QUALITY – OVERSEAS INSTALLATION AWARD

For work with environmental offices, both within and outside of DoD, including the U.S. Environmental Protection Agency (EPA), U.S. Forest Service, and EPA Region IX. Camp Butler completed and implemented an integrated natural resources management plan, an integrated cultural resources management plan, and introduced its centralized hazardous waste management program. Also completed was a natural resource inventory of nearly 3,000 species, of which approximately 260 are rare, threatened, or endangered.

FIELD ACTIVITY SUPPORT AND TECHNOLOGY TRANSFER (FASTT) TEAM, NAVAL SEA SYSTEMS COMMAND, VA. (A PARTNERSHIP EFFORT OF THE NAVY, ARMY, AND AIR FORCE); POLLUTION PREVENTION – INDIVIDUAL/TEAM AWARD

This joint-Service team identified more than \$58 million in potential cost avoidance at DoD facilities. By combining the disciplines

of environmental protection with maintenance and repair, the FASTT team reduced the cost of environmental compliance while reducing Service personnel workloads. FASTT conserved scarce resources and identified annual reductions of over two million pounds of air and water pollution, and 657,000 pounds of hazardous waste.

DEPARTMENT OF THE AIR FORCE

OFFUTT AIR FORCE BASE, NEB.; ENVIRONMENTAL RESTORATION – INSTALLATION AWARD

Saved more than \$2.1 million through new technology demonstrations and proactive management of their restoration program. Included was implementation of a “bio-wall” system that successfully prevented chlorinated solvents from migrating into the groundwater; abandonment of 51 groundwater monitoring wells, saving \$600,000 per year; and eliminating the need for a \$500,000 subsurface investigation through a no-cost demonstration project using laser-induced fluorescence chemical sensor technology.

Editor’s note: This information is in the public domain at www.defenselink.mil/news. More information on the Defense Environmental Security Award recipients may be found on the Web at <https://www.denix.osd.mil/denix/Public/News/OSD/SecDef00/secdef00.html>.

Values-based Leadership

Determining Our Personal Values

BOB RUE

Values are the essence of who we are as human beings. Our values get us out of bed every morning, help us select the work we do, the company we keep, the relationships we build, and, ultimately, the groups and organizations we lead. Our values influence every decision and move we make, even to the point of how we choose to make our decisions.

Purpose of Values Determination

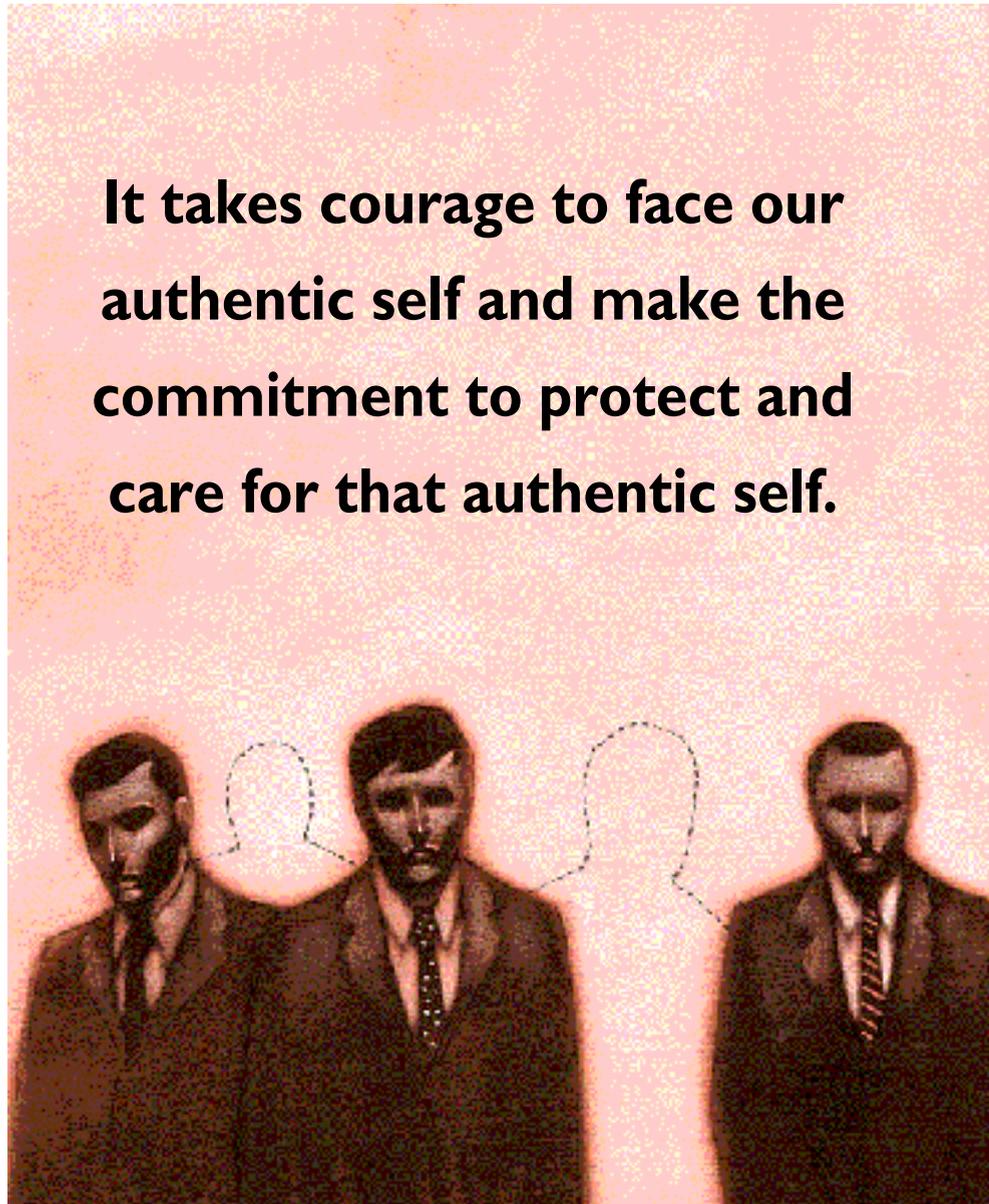
When we honor our values, we feel alive and vital. When we ignore them, we feel forced, unnatural, out of step, and unhappy. Over time, we may feel a gradual sense of dull routine accompanied by regret for not following a different strategy.

This article deals with the impact of personal values on individuals and those they influence while serving in a leadership role such as family members, friends, social contacts, and co-workers. It relates concrete examples of observed behavior where values were ignored and examples where they were honored, understood, and applied, along with observed results. Finally, it encourages readers to define the personal values that are at the very core of *their* being – that define who *they* are as individuals and how they *choose* to lead.

Personal Values Description

Our values are the elements deep within our belief system that make us “tick.” They influence every aspect of our per-

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It takes courage to face our authentic self and make the commitment to protect and care for that authentic self.

ceived reality, from family to work and from friends to the larger world in which we live. Hyrum Smith from the Franklin-Covey Co., in his April 6, 2000, presentation to the U.S. Air Force Electronic Systems Center refers to our belief system as the screen through which our view of the everyday world is filtered.¹

If everything we see passes through this “screen” and colors our viewpoint, doesn’t it make sense to be aware of what that screen depicts? If our values play such a critical role in the perceptions we form of our world, wouldn’t it be in our best interests to understand what they are and how they influence our perceptions?

Values vs. Behavior

Many years ago, while working in the insurance industry, I reported to Dick, one of my brokerage firm's senior vice presidents. Early in our working relationship while having lunch one day, he shared the following information about himself:

- He was a chain smoker.



- He was three years into his second marriage.
- He had a two-year-old daughter.
- He was 35 years old.
- He arrived at work after a two-hour commute at 7:30 a.m.
- He left for home facing a two-hour commute at 6 p.m.

- His wife objected to his long hours.
- He played golf every Saturday and Sunday in season.
- He entertained clients frequently (although he hated it).
- He enjoyed two martinis at lunch.

On the rare occasion when we were on the same train home, I noticed his drinking two beers on the train – in addition to the two martinis at lunch. To me, his behavior suggested he was self-medicating. When I asked Dick why he worked the long hours, his response was, “That’s how I got to where I am. If you are smart, you’ll start putting in longer hours yourself.” I asked if he equated long hours with success. He claimed that he didn’t. Rather, he claimed that our firm’s president depended heavily upon him since the client we jointly served was the firm’s largest and most demanding account.

Did this mean that I would be evaluated largely on the amount of hours I was willing to give to the firm? If I wanted to build strong relations with my clients, did I have to constantly entertain them? My heart sank. I believed that the *quality* of work equated to successful results rather than the *time* spent at work.

I enjoyed entertaining clients – if I liked being with them. If I didn’t enjoy their company (or perceived that they didn’t enjoy mine), I minimized our entertainment time. My immediate problem was that our largest client fit into the latter category. I struggled with the reconciliation of my values and what Dick seemed to perceive as my lack of professional standards of behavior.

The Values Conflict

Clearly, I had encountered a lesson in the conflict between two different sets of values. Dick seemed continually stressed, self-medicating through cigarettes and alcohol. Our conversations surfaced his personal value of being financially successful through the qualities of pure hard work and dogged, at times ruthless determination – regardless of whether the work was satisfying. It’s not that Dick’s values were wrong – they were just very different from mine.

To me, they seemed extreme and inflexible. There was no tolerance for anyone else’s values if they were different. In fact, Dick was quite critical and judgmental when his values clashed head-on with someone else’s. His assumption seemed to be that his values should have been *everyone’s* values. His mind-set allowed no room for personal differences. There seemed to be no balance.

His value system forced many difficult, “either/or” choices for him. *Either* he placates his wife’s wishes and works fewer hours *or* continues to be successful in providing for his family. *Either* he does less requiring him to depend on those who report directly to him (who won’t work as hard), *or* the work gets done personally by him the “right” way. *Either* he pays attention to his health *or* keeps up the coping mechanisms of alcohol and tobacco in order to continue building his successful career. *Either* he stays home on weekends *or* plays golf to maintain his sanity. Is he a workaholic? Is he an alcoholic? Even if he is, isn’t this the sacrifice that responsible fathers and husbands make for the sake of their families? If he gives up any part of his work, isn’t he admitting weakness or incompetence? Is there a danger of losing his sense of who he really is?

Dick seemed to *force* everything. Crisis was the norm with Dick. He seemed to under-plan and to overreact. He would leave the office to catch a plane 30 minutes before the flight, paying the taxi driver extra to “Step on it!”

Dick often expressed frustration as a victim of others who forced him out of control: clients demanded too much; colleagues could not be trusted; or the firm’s president leaned on him too much. Even the steno pool responded too slowly to his constant demands (interestingly, they responded quite well to the rest of us). In his book, *Stewardship*, Peter Block states, “Power is what victims want, and we are the ones they want it from. Victims believe that others, often us, hold the answer to their helplessness. If they were just given more power, or if our behavior would change in some way, then they could begin to take responsibility.”

Dick had power all along. He needed to examine his values carefully to find it.

Influence of Values on Leadership

Unfortunately, Dick's value system impacted others well beyond himself. As one of Dick's employees, I felt he wanted me to reinvent myself in his image, something that seemed repugnant to me. His values and beliefs were very different from mine. And yet, my performance would be measured through his biased eyes, filtered by his value set.

When I found our firm's largest client had misrepresented a key aspect of his business to me in order to obtain insurance coverage at an advantageous rate, I saw a need to firmly set professional boundaries and expectations with the client. Dick panicked.

"How can you put this account in jeopardy? He may be a No. 1 @*!#(*! ... but he means \$500,000 a year to the firm!"

"I know," I said. "And he put me in a position with our underwriters where my honesty and integrity is in question with them. He contends that I intentionally misrepresented his operation. Since I work with these underwriters on other client accounts, he has jeopardized my credibility with them. It could put our other clients unacceptably at risk with these underwriters."

"Forget it!" Dick exclaimed. "All of our underwriters know that he's a jerk! Don't worry about them!"

I believed in requiring the client to honestly represent his business operations. Our business was based on integrity and trust. Underwriters had to trust that our representation of a client was accurate before they would offer competitive insurance protection. Without that trust, we had very little to offer anyone.

Leadership Implications

In small groups, families, teams, large groups, or huge multinational organizations, values are *always* used as a basis for the group's operation. The question is *whose* values. From leadership style,

staffing requirements, decision making, pay policies, or customer service, values shape the way the group makes decisions. The only question is *whose* set of values is at work, and whether the values are *implicit* or *explicit*.

Implicit values are much more common – and dangerous. They are the *assumed* values of the individual who is perceived as the one who sets the norms, such as the company's founder, the family's mother or father, or the small group's most vocal or neurotic member. Since the dominant person's values are implicit and left to the perceptions of everyone else, they are subject to broad interpretations and – more often than not – *misinterpretations*.

Let's imagine two firms. In the first, the chief executive officer (CEO) operates out of a clear understanding of his or her value system. Since the CEO's behavior during times of crisis is one of the prime factors in shaping the organizational culture, it is reasonable to assume that the organization will reflect the perceived values represented by the CEO's behavior.²

Now, imagine the second where the CEO reacts to crisis with a total lack of awareness of his or her own personal value system. The CEO's behavior appears erratic and inconsistent. Subordinates will most likely misunderstand the CEO's intentions. Often, the culture becomes one of confusion and fear as rumors and mixed signals fly throughout the environment. In a fear-based culture, creativity is the first casualty as the organization's members become increasingly risk-adverse.

Consider for a moment what kinds of employees each firm will recruit. How will decisions be made? Who will make them? How will meetings be run? How will new ideas be received? How will customers be treated? What will the quality of life in the workplace be? Will initiative be recognized or chastised? Will good results be rewarded? How will failure be handled? How will performance be measured? What will be the effects on morale? What will be the

strategic impact? The implications are staggering!

In the years since I went into practice as a private consultant, I have rarely found situations where people were fired because they were technically incompetent. I have, however, found many situations where they were terminated because their value system clashed head-on with that of their supervisor or board of directors. This observation is especially true within the senior ranks of organizations. What happens in the U.S. Government's senior ranks whenever a new President takes office? Are we replacing competence or really changing the values (and over time, the culture) of those who head U.S. Government Departments and Agencies?

Our Responsibility to Ourselves

Each of us has the opportunity and choice to clarify our value system. For those of us in positions of leadership and influence such as parents, clergy, teachers, coaches, supervisors, managers, directors, or executives, when we clarify our values, we do a great service to ourselves and a great service to all of those with whom we come in contact. It takes courage to face our authentic self and make the commitment to protect and care for that authentic self. The big, fundamental question is, "Am I worth the effort?"

Coaching Joan

I was in private practice for 13 years when I was asked to coach a client company's director of management information systems (MIS). The division vice president described Joan (not her real name) as quiet and competent. "Her problem is that she shuts up in meetings with other senior executives at the very time that I need her opinion!"

When Joan and I met for our initial interview, I asked her how she felt about our working together. I also asked her what she *expected* and what she *wanted* to happen as a result of our working together. "I want to be vice president of MIS when we acquire ABC (not the real name) company," she said without any hesitation. "Why?" I asked.

“Because that’s my next career step,” she shot back.

“I may ask you to do some homework assignments that may push you out of your comfort zone. You always have the right to refuse, and that is OK. Our work is strictly confidential and will be discussed with no one unless you are present and give me your permission. Is that all right with you?” “Absolutely!” she said. “After all, this is an opportunity for me.”

We agreed to a regular meeting schedule. Before leaving, I gave her a homework assignment. The assignment was to identify her primary personal values.

Joan had an immediate reaction to the assignment. “What if my values turn out to be in conflict with my work?” My response was simple: “If they are, would you rather not know? If you would rather not find out *now*, when *would* you like to find out?” A slow smile crept over Joan’s face. “I get your point.”

Joan’s concern was understandable. What if I clarify my values only to find out that I have been living a lie? Who do I hold responsible? How do I regain lost time? Perhaps I really don’t know myself! What if I discover that I have been in emotional pain and successfully “numbing out” for many years (very common for people working in jobs they hate)? Am I *worthy* of self-care?

Of course, the reverse is also something to consider. What if I gain control of the quality of my life? What if I discover that I’d rather be making my living doing something very different and *loving* it! What if I became a better parent (partner, boss, friend, or lover)? What if I find out that I am worthy of my own love and acceptance?

By tackling this assignment and dealing with these questions, Joan demonstrated considerable courage.

Determining Our Personal Values

Values and qualities are not the same. Values are who you *are*. Qualities are what you *do* in order to honor your val-



I have rarely found situations where people were fired because they were technically incompetent. I have, however, found many situations where they were terminated because their value system clashed head-on with that of their supervisor or board of directors.

ues. For example, I am honest (quality) because I value personal integrity; I engage with people (quality) because I value their diverse viewpoints. Our values are not only those elements of our makeup that please us; they drive our qualities that others see.

As part of her homework assignment, Joan listed her most important personal values. Joan then asked her husband to create a similar list of her most important values *based upon his observations of her* within their relationship. She then asked two subordinate managers to create similar lists of her values based upon *their observations and perceptions*.

Joan was quite excited when we met again. Her list was very close to the list her husband had written. Interestingly, it varied significantly from the lists she gathered from two subordinates who reported directly to her. Most interestingly, she felt totally “in sync” with her list and the list from her husband. Conversely, she felt detached from the list given to her by those reporting directly to her.

“How do you account for the lists from those who report directly to you being so different?” I asked. “That’s easy,” she said. “I’m not *really* me when I come to work.”

We began the search for ways in which Joan could *fully* come to work. Once Joan clearly identified her values, we began to look at what blocked her honoring them through her actions. Within a few coaching sessions, Joan shared that she had always wanted to start her own business in dog products. “Not exactly retail – more virtual,” she said. She realized that her MIS background coupled with a financial settlement she had received from the company for some stock options she had exercised, technically and financially positioned her to begin her effort.

However, clarifying her values also revealed her low tolerance for risktaking. Certainly, beginning a start-up virtual business involved some risk. She developed a plan for staying at her current organization but in a different capacity.

She found real satisfaction in project management rather than executive management and offered to leave her current position and create a new position as the MIS research and development function for her company. In this capacity, she would lead small teams in their search for high-tech solutions to the company's many challenges. This fit perfectly into the strategic planning of the division vice president.

A year later, the "complete" or authentic Joan is coming to work every day. She has helped her company recapture the technological capability it so desperately needed. Dog lovers are discovering her new Web site, while she busily explores the entrepreneurial world. Her relationships with her co-workers have never been better, and she is more relaxed at work and at home.

Discover Your Own Values

Considerable personal power is available to each of us when we discover our values, adjust them to make sure they are balanced and healthy, and create ways to honor them through action. Of interest to me is the fact that we *already* operate from our values base. Whether we

intend to or not is immaterial. Our values drive our decisions, our behaviors, and filter our view of the world around us.

Seeking clarity on our personal values allows us the opportunity to make the best choices for ourselves. Remaining ignorant of them leaves our best choices to be made by others.

For leaders, understanding their personal values gives them a great range of choices to make in shaping their organizational culture, whether that organization is a family, scout troop, sports team, or major corporation. Our values follow us more closely than our shadow. Our values are our very *core*.

Leaders who exercise their personal values set a clear example. They are aware of why they make the decisions they make. They have an internal guiding beacon when they have to make tough choices. They understand the range of *acceptable* choices available to them. They judge others less harshly, while inspiring higher performance. They tend to find great satisfaction in their work. They tend to form relationships of trust read-

ily. They live healthier lives. They are comfortable with themselves. They treat themselves (and others) with TLC – tender loving care. They suffer less stress.

And who among us couldn't benefit from a little less stress?

Editor's Note: The author welcomes questions or comments on this article. Contact him at Robert.Rue@hanscom.af.mil.

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Important Notice on Registering for DAU Courses

The DAU Virtual Campus, also known as the Online Schedule System (OSS), no longer serves as a registration system for any DAU course. The Acquisition Training Application System (ACQTAS) will be the sole registration system for all DAU courses. Civilians from DoD agencies other than the Army, Navy, and Air Force can access ACQTAS at the following Web site <https://www.atrrs.army.mil/channels/acqtas>. The OSS will continue, however, to serve as the delivery platform for all Web-based training courses (ACQ 101, BCF 102, CON 237, IRM 101, LOG 101, LOG 203, PQM 101, SAM 101, TST 101) and "A" sections for DAU hybrid courses (ACQ 201, BCF 211, PQM 201).

When a student registers for an online class in ACQTAS, the data entered into ACQTAS for each student (SSN, name, address, organization, etc.) will be the data of record; this data will then be forwarded to OSS. If the student already has an account in OSS, the user name/password for that student will remain the same. If the student does not have an ac-

count in OSS, OSS will provide the student with a user name/password he or she can use to enter OSS for the purpose of completing Web-based training courses.

Military and civilian personnel from the Department of the Army and Department of the Navy must continue to register for DAU courses using the prescribed procedures:

Army
<https://www.atrrs.army.mil/channels/aitas/>

Navy
<https://www.register-now.cms.navy.mil>

Air Force
For registration procedures, contact the Office of Acquisition Career Management, Acquisition and Career Management Resources Division, Office of the Deputy Assistant Secretary of the Air Force for Management Policy and Program Integration (SAF/AQXDA), at DSN 487-6580.

Send Us Your Suggested Research Topics

The Defense Acquisition University (DAU) is soliciting input from the Acquisition Workforce (AWF) for suggested research topics or issues to assist the AWF in achieving their short- and long-range mission goals and objectives. If you have a suggested research topic, please contact Dr. James Dobbins, DAU Director of Research, at jim.dobbins@dau.mil, or call 703-805-5416.

Test and Evaluation in the Desert

Sad Tale of a “Rattled” Tester

JOHN C. BIRKITT

Designing, building, and especially testing High Energy Lasers has some interesting moments. As you can probably imagine, these potentially lethal devices must be tested in a manner that minimizes risk. Personnel undertaking such testing must have situational awareness at all times. And the risk does not end with the Directed Energy devices.

Out here in the New Mexico desert, other concerns may focus on a different type of “directed energy” — a fact to which I can readily attest.

Diamondbacks and Mexican Reds

In the past few years, Western Diamondback and Mexican Red rattlesnakes have struck me a total of nine times. One particularly memorable event took place on the morning of June 30, 1998. First, I'll set the scene. Picture it:

We were preparing for the last tracking mission in the Tactical High Energy Laser Fire Control Radar/Command, Control, Communications and Intelligence (THEL FCR/C3I) test series. The Commander's second line of sight or Adjunct Optical Tracking System was being prepared for the missions of the day. Calibrating the system requires a known Infrared (IR) source, located at a distance of at least 10km from the tracker.

At first light I went to a location known as the 11K or Jess Site to establish such an IR source. A power drop from a high voltage line at that location can be used to supply power to the IR source. On the ground is a steel box approximately one meter cube, containing a power supply, voltage regulator, and various other electronic components used to adjust

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the supply to the IR sources. Two pairs of doors are situated on the box — one on the front and one on the back. The front doors allow the IR source to be seen by the Adjunct Tracker. The back doors allow access to adjust the voltage and current. The front doors are normally left open.

Striking Surprise

On this particular morning, I knelt next to the back of the system and opened the doors to verify the settings. When I opened the doors and looked in, a rattlesnake that had been spending the night on the warm transformer apparently took umbrage at my rude intrusion, striking and hitting me in the left side of the face right below the left eye on the cheekbone.

I stood upright with the snake writhing and still hanging from my face. Not willing to let go, the weight of the snake tore some of the flesh, which started to bleed profusely. A struggle ensued in which I came out the “winner.” Finally freeing myself, I verified the settings that I had started out to check, and then proceeded to drive the 20 or so miles back to where the tracker was located. The missions proceeded without further incident, after which I went back to the office.

Earlier, my secretary had quipped, “Did the snake die?” when I first called to report my “snake attack.” (She thought I was only kidding.) The look of shock on her face when she saw me, however, was a true Kodak moment.

There was no permanent damage, but alas I did lose the sight in my left eye for a few weeks. (Presumably, the doctors tell me, the bleeding caused by the



tearing of the flesh was beneficial in getting rid of most of the venom.)

Safety Among the Snakes

At this point, I must note that *it is against the rules to kill a rattlesnake on federal property*. The correct approach is to call your local Environmental and Safety personnel who catch the snake and transport it (in our case) to the other side of one of the barbed wire fences. (I am not certain, however. I guess the snakes are supposed to recognize the barbed wire as a boundary and slither elsewhere.)

Every program needs a good dose of test and evaluation. Just watch for those small problems that tend to “rear their ugly heads” and take a “bite” out of your test plan. As for 2001 — so far it's been a very good year. No bites — *yet*. But at nine bites and counting, I'm not betting the farm.

Editor's Note: This is a true story. The author welcomes questions or comments on this article. Contact him at JBirkitt@Millenniumdental.com

2001 DoD Mentor-Protégé Conference

Partnerships at Work for Our Nation's Defense

COLLIE J. JOHNSON

MENTOR-PROTÉGÉ

About the Program

The DoD Mentor-Protégé Program, which Congress recently authorized for another three years, was crafted by Senator Sam Nunn in 1990, and implemented by then Secretary of Defense William Perry in 1995. Nunn envisioned the program as a vehicle for the orderly development of protégés, or small businesses that could become valued suppliers for the defense acquisition system. The program assists small disadvantaged business firms and qualified organizations that empower the severely disabled to transition from a state of modest attainment into positions where they can and do make substantial contributions to the defense of our nation. Presently, 233 firms are participating, including companies specializing in environmental remediation, engineering services and information technology, manufacturing, telecommunications, and health care to name a few. This year, by legislative action, the program expanded to include women-owned small businesses.



George T. Schultz (left), DoD Mentor-Protégé PM, and Sharon Jones, DISA Mentor-Protégé PM, attending the Conference Reception at Constitution Hall, in Washington D.C. Between them is a bust of Martha Washington, one of the patriots on display in the entrance hall. Said Schultz, "How pleased Eleanor Roosevelt would have been to see that the site where Marian Anderson was barred from singing 62 years ago, is tonight an epicenter of activity promoting the rights of small and disadvantaged businesses owned by minorities across the nation." (In 1939, the DAR would not let Anderson perform at Constitution Hall because she was black. Eleanor Roosevelt, the nation's First Lady, invited her to sing instead at the Lincoln Memorial for over 75,000 people.)

“Welcome to the greatest show on earth!” George Schultz, the DoD Mentor-Protégé Program Manager, delivered that rousing welcome to a sell-out crowd March 19 at the 2001 DoD Mentor-Protégé Conference, in Arlington, Va. And for those government and industry professionals fortunate enough to participate in this year’s Mentor-Protégé Program, Schultz’ welcome wasn’t far off the mark. In fact, if their enthusiasm and testimonials are any indication,

the DoD Mentor-Protégé program is rapidly becoming one of the foremost, if not the best example to be found of government successfully partnering with industry for their mutual benefit.

This year’s event, covering three days, focused on program initiatives; success stories within the Mentor-Protégé Program; perspectives on the program from the mentors and protégés themselves; and breakout sessions with input from all three Services – Army, Navy, and Air Force – as well as other defense agen-

cies, represented by the Defense Information Systems Agency.

As in past years, the highlight of the conference was presentation of the Nunn-Perry Awards (pp. 22-23). “The best of the best,” said Robert L. Neal Jr., of this year’s winners. Neal is the Director of the DoD Office of Small and Disadvantaged Business Utilization (SADBU).

“Each of our mentors and protégés provide us with substantial benefits,” he said. “But there are some who are clearly

so much better than the rest that we have to acknowledge their performance and encourage each of you to learn from their examples.”

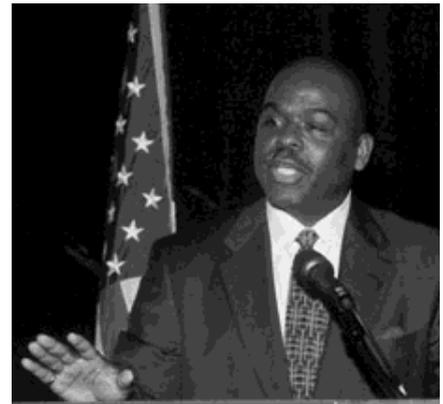
SADBU Director Notes Changes, Challenges

Organizationally, the DoD Mentor-Protégé Program is aligned under SADBU, which reports to the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics). Neal has held the position of SADBU Director since June 1996.

“This conference gives us an opportunity to reflect upon our performance for the past year and to look forward to the

Although the resources within the Mentor-Protégé program are somewhat limited, Neal said that SADBU remains committed to the delicate balancing act of trying to make sure that the pool of participants is expanded to allow a larger number of women-owned small businesses to participate. This expansion must be managed, Neal added, while SADBU is simultaneously balancing the needs of women-owned small businesses with the needs of the small-disadvantaged business community, as well as those small businesses that employ the severely disabled.

He called this challenge “a type that clearly aligns with the 2001 Conference



Robert L. Neal Jr.
Director, Office of Small and Disadvantaged Business Utilization

“What the Mentor-Protégé Program offers – and what each team exemplifies in their mentor-protégé relationships – is that working together they *can* make major changes in their local communities, and in what they offer the government and the nation.”



From left: George Schultz, DoD Mentor-Protégé PM; Carl Sax, Executive Vice President and General Manager, Kuchera Defense Systems; Bill Kuchera, Owner and President, Kuchera Defense Systems; U.S. Congressman John P. “Jack” Murtha (R-Pa.); and SADBU Director Robert L. Neal Jr.

future,” Neal said. Speaking of changes as well as challenges within the Mentor-Protégé Program, he cited one of the major changes as expansion of the program, in terms of participants, to include women-owned small businesses.

“There are a large number of women-owned small businesses that are very anxious to do business with the Federal Government,” he noted, “particularly the Department of Defense.”

theme – *Partnerships at Work for Our Nation’s Defense*. The keyword, he pointed out, is *partnerships*, because what the Mentor-Protégé Program offers – and what each team exemplifies in their mentor-protégé relationships – is that working together they *can* make major changes in their local communities, and in what they offer the government and the nation.

“The Mentor-Protégé Program has brought me a great deal of joy in my five

years in the Department of Defense,” said Neal. “On a daily basis I get to see the caring, the dedication that each of you exemplify in your mentor-protégé relationships. What a difference it can make in the local communities, and what a difference you make for our men and women in uniform!”

U.S. Congressman John P. Murtha (R-Pa.)

Introducing Congressman John P. “Jack” Murtha from Pennsylvania, Neal referred



U.S. Congressman John P. "Jack" Murtha
(R-Pa.)

“When it comes to the nation’s yearly budget, there are two certainties: 1) the Department of Defense wants to get the most for its money; and 2) one of the best buys for taxpayers’ dollars is the DoD Mentor-Protégé Program.”

to him as “one of the biggest proponents and supporters of the Mentor-Protégé Program.”

Murtha, a congressman since 1974, presented eye-opening, concrete examples of how the program is impacting small businesses in his district. Tying the past to the present, he focused on the “here and now,” presenting what many said was the best evidence of the program’s tremendous impact on small disadvantaged business firms and those qualified firms that employ the severely disabled.

The DoD Mentor-Protégé Program, recently renewed for three years, must look to Congress for the funding to stay alive. Murtha, who is a member of the House Armed Services Committee, said that when it comes to the nation’s yearly budget, in his mind there are two certainties: 1) the Department of Defense wants to get the most for its money; and 2) one of the best buys for taxpayers’ dollars is the DoD Mentor-Protégé Program.

Johnstown, Pa., and the Mentor-Protégé Program

Murtha said that when he came to Congress in 1974, his district – Johnstown, Pa., which was built around the declining steel industry – went from 12,000 steel workers down to less than a thousand. The mines industry – employing 12,000 people in his congressional district – lost 7,000 coal jobs during the same period. All in all, Johnstown lost over 18,000 jobs.

“Imagine the economic impact on the community – 25,000 people, 150,000 people in the suburbs – that the loss of 12,000 jobs (\$21.00-an-hour jobs) would have on a community.” The community had no choice but to diversify. We had to find ways of bringing business to Johnstown and the surrounding area,” said Murtha. “That was easier said than done.”

MARKETING

The Johnstown community began their efforts to draw industry by showcasing and marketing, according to Murtha, inviting all the big contractors to town. This “showcasing” though, initially did not have the desired effect. “As a whole, it really was not something that looked like it was going to end up being very big.”

The community kept working at it, he said, by continuing to bring big industries into Johnstown and reassuring local small businesses that they had a chance of doing business with big industries.

“The Johnstown community small businesses were used to just putting together a contract, signing it, and then the steel or coal mine industries would agree to pay. As you can imagine, that didn’t work.

And that,” Murtha said, “was where the Mentor-Protégé Program, either officially or unofficially, came to our rescue.”

He knew that the big companies wanted to do business in his district. His challenge was to convince the Johnstown small business owners that they must meet the quality standards expected by big business and become competitors in their own right. “We’ve had some real success stories that you’ll hear more about as this conference progresses,” he added.

REHABILITATION CENTER

He also spoke of the program’s impact on the Rehabilitation Center in Johnstown. The Rehabilitation Center, Murtha explained, was started 25 years ago to retrain people who have been in accidents, had a stroke, or experienced similar problems. The Mentor-Protégé Program is helping a considerable number of these people find jobs.

One Johnstown company he mentioned, currently a member of the Mentor-Protégé Program, now has 250 people working there – a number of them from the Rehabilitation Center. Murtha struck a responsive chord from participants as he related some personal aspects of the program that resulted in jobs being filled with productive workers – workers from a pool of job applicants who had previously lost all hope of ever being gainfully employed.

INDIVIDUALS

He told the story of one young lady from the Rehabilitation Center, about 25, living at home with her parents. “When we first initiated the program, she was in tears because she’d never had a job. She was living at home, and she was severely handicapped. She was in a wheelchair with all kinds of physical problems. She now has her own apartment. She can get around by herself. She is as productive as any other person in her workshop.”

She would not have had the opportunity, Murtha said with conviction, if it had not been for the Mentor-Protégé Program. “Now that’s an example of what

can happen through this program ... the Mentor-Protégé Program is so important not only to businesses, but *individuals*.”

The Johnstown community has other small businesses, according to Murtha, that have benefited tremendously from the program.

SAVINGS

He went on to relate how another company (not in Johnstown) had a sole-source contract with a business for a console that’s on every Navy ship and cost \$800,000. The company decided to compete the contract, and the contract was won by a small business in Johnstown. The Johnstown small business, he said, now produces the console for *less than \$100,000*.

“Now, there’s an example of the savings that can be made under this program with the right mentoring, with the right leadership.” That small business in Johnstown, he noted, now employs 400 people. “They are the ones that cut the costs to us, the taxpayers,” he pointed out.

Defense, he noted, has gone from a budget of \$100 billion a year to over \$300 billion a year, up and down over the past few years. A lot of that is inflation, said Murtha, but a lot of it is procurement of weapon systems. “We have overruns in a lot of these programs, but the thing that helps us most when we go before Congress is our successes – successes like the Mentor-Protégé Program.”

On Leadership

Murtha believes that the most important aspect of mentoring a protégé is leadership. “Leadership is exactly what the mentoring program brings to a small business. One of the businesses in Johnstown tells me if they had the right partner, they could double their business.”

Applied expertise and leadership, Murtha said, also help small business, particularly that small business struggling to open doors to the banks. “The banks, in turn, see it as an opportunity to help the community in which they’re involved,” he added.

Concluding with words of encouragement and support, Murtha assured the audience that the Mentor-Protégé Program is important to the viability of defense because it allows the nation to realize a competition that gets the price down with a quality product.

“I want to applaud you, the managers of the DoD Mentor-Protégé Program, applaud those defense industries that are involved in the mentoring program, and also applaud the tenacity of the small business, which is the backbone of this vital program.”

DoD Mentor-Protégé PM Delivers “State of the Program”

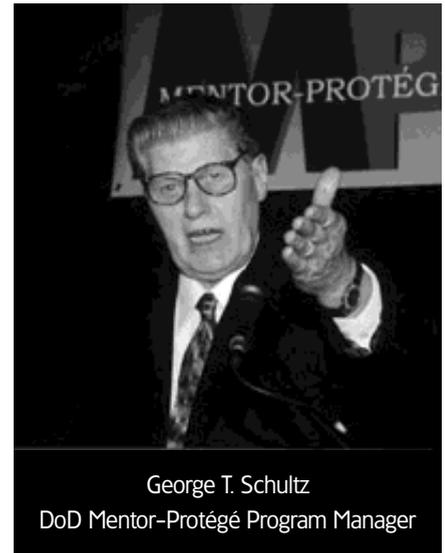
George T. Schultz, the DoD Mentor-Protégé Program Manager, updated conference participants on the status of the program’s funding, legislative changes, reporting, current policy, and initiatives. But first he told them to “have fun” and use the conference as an opportunity to examine significant elements of the Mentor-Protégé Program, exchange ideas, and engage in good discussion. “Learn from each other,” he urged. “Grow in your involvement, and rejoice in your program’s successes.”

Funding

Funding naturally is the heart of the program. A very modest program by DoD standards, the DoD Mentor-Protégé Program, when compared with the larger programs, is “merely a drop in the bucket,” Schultz said.

“It is, however, a very popular program, very much of interest to the Congress and the General Accounting Office. It’s also of great interest to our prime contractors and protégés – it really does have a tremendous amount of visibility.”

Reviewing the program’s funding, past and present, he reported that the program started off in the early 1990s budgeted at \$30.3 million, and in fiscal 01, the budget stands at roughly \$27.5 million. “But we have optimism in this program,” said Schultz. “Our first tentative movement forward will be to request \$25 million plus \$15 million for women-owned small businesses.”



George T. Schultz
DoD Mentor-Protégé Program Manager

“The DoD Mentor-Protégé Program is a very popular program, very much of interest to the Congress and the General Accounting Office. It’s also of great interest to our prime contractors and protégés – it really does have a tremendous amount of visibility.”

He said that mentor-protégé program managers in the Army, Navy, Air Force, and defense agencies keep track of their own program funding so that they can move forward in the direction they need to in a financial sense.

The program incurs an average cost agreement of about \$500,000 over a three-year period, Schultz said. To maintain that level, the program must have many agreements that cost much less than that, but also quite a few way above that.

2001 NUNN-PERRY AWARDS

Oliver Recognizes **13 Exceptional Mentor-Protégé Teams**

The Nunn-Perry Awards recognize and highlight outstanding and successful Mentor-Protégé relationships. The awards are named in honor of former Senator Sam Nunn for his vision and insight in sponsoring legislation to create and fund the DoD Mentor-Protégé Program and in honor of former Defense Secretary William Perry for his commitment to implementation of the program. Presenting the Mentor-Protégé Team Awards for 2001 are former Acting Under Secretary of Defense (Acquisition, Technology and Logistics) David Oliver, and Small and Disadvantaged Business Utilization Director Robert L. Neal Jr.



Computer Sciences Corporation-Computer Systems Technology, Inc.
Mentor: Computer Sciences Corporation, Huntsville, Ala.; Protégé: Computer Systems Technology, Inc., Huntsville, Ala.



Jacobs Engineering Group-Cape Environmental
Mentor: Jacobs Engineering Group, Oak Ridge, Tenn.; Protégé: Cape Environmental, Atlanta, Ga.



JT Construction-Amigo Building Corporation
Mentor: JT Construction, San Antonio, Texas; Protégé: Amigo Building Corporation, San Antonio, Texas.



TRW Aerospace & Info Systems-Frontier Electronic Systems Corporation
Mentor: TRW Aerospace & Info Systems, Redondo Beach, Calif.; Protégé: Frontier Electronic Systems Corporation, Stillwater, Okla.



Jacobs Engineering Group-Scientific Sales, Inc.
Mentor: Jacobs Engineering Group, Oak Ridge, Tenn.; Protégé: Scientific Sales, Inc., Oak Ridge, Tenn.



Anteon Corporation-Engineering Services Network

Mentor: Anteon Corporation, Fairfax, Va.; **Protégé:** Engineering Services Network, Arlington, Va. Presenting all 13 team awards are Oliver (second from right) and Neal (far right). (Note that in some photos they appear on the opposite side.)



Bell Helicopter Textron-Precise Industries

Mentor: Bell Helicopter Textron, Fort Worth, Texas; **Protégé:** Precise Industries, Lufkin, Texas.



Foster Wheeler-TAC Services

Mentor: Foster Wheeler, Poulosbo, Wash.; **Protégé:** TAC Services, Colorado Springs, Colo.



IT Corporation-Mendelian Construction Inc.

Mentor: IT Corporation, Concord, Calif.; **Protégé:** Mendelian Construction Inc., San Francisco, Calif.



MEVATEC Corporation-Analytical Services Inc.

Mentor: MEVATEC Corporation, Huntsville, Ala.; **Protégé:** Analytical Services Inc., Huntsville, Ala.



Rockwell Collins-Witter Manufacturing Inc.

Mentor: Rockwell Collins, Richardson, Texas; **Protégé:** Witter Manufacturing Inc., Grand Prairie, Texas.



Northrop Grumman Corporation-Keiko Manufacturing

Mentor: Northrop Grumman Corporation, Dallas, Texas; **Protégé:** Keiko Manufacturing, Signal Hill, Calif.



Washington Group International-Materials Management Group

Mentor: Washington Group International, Boise, Idaho; **Protégé:** Materials Management Group, New Orleans, La.

“Our emphasis is a policy that calls for the reimbursable agreements to have a strong *technical* mentoring effort.”

Expanding on that statement, Schultz said that the whole idea of what the mentoring effort is, has gradually changed. “I think that we all feel that the stronger the mentoring effort, in a *technical* sense that is, the stronger the agreement is. The stronger the agreement is, the more likely that the protégé will become a valued defense supplier.”

Legislation

Reiterating Neal’s comments, Schultz said that the biggest legislative change this year was the addition of women-owned small businesses to the DoD Mentor-Protégé Program. The 2001 National Defense Authorization Act or the 2001 Authorization Act, added women-owned small businesses as entities within the Mentor-Protégé Program, along with the traditional small and disadvantaged businesses and the traditional special entities that deal with disabled firms.

Schultz believes the Mentor-Protégé Program is going to be very much of a growth program. However, he is not anxious about the program’s expansion. “We think it’s going to work out well because it’s the right thing to do,” he assured the audience. “We think we are going to get the support that’s needed economically for this program.”

Program Review, Reporting

The DoD Mentor-Protégé Program has a number of reports in progress, Schultz said. A GAO Report will be submitted to the Congress on or before the first of January 2002. The GAO auditors do their level best to make certain that the program is doing the things for which it was chartered, he noted.

“We cooperate with GAO because we feel that they are a significant body with which to work and exchange. Our records are open, and everything we have is available to GAO so that they can come to the kinds of determinations that are needed, hopefully for the betterment of the program’s long range, but also for the short range.”

Schultz said GAO is interested in the program, and urged conference participants to “read GAO’s report and the guidance that they provide to us.”

Another report he mentioned was the *DoD Mentor-Protégé Program Annual Report to Congress*. Just completed in March and forwarded to Congress, the report is a compilation of input from all organizations affiliated with the program.

He also spoke of the performance reviews that are being done by the Defense Contract Management Agency (DCMA). A precursor to the Annual Report, all of the mentors and protégés cooperate in the semiannual reports, he explained. Once the DCMA goes in and does the verification work – and in the process gains a better understanding of how the mentors are doing their jobs, and how the protégés are doing their jobs – they [DCMA] come up with ideas designed to strengthen the program and make it run more smoothly.

He called for all who work on the semiannual report to do their level best to get good data and commentary into their submissions – data such as, “Is the protégé still in the program? Is the protégé growing? Why or why not?” These, said Schultz, are the performance indicators that tell his office how well they’re managing good mentoring work and good protégé work.

Initiatives

Schultz talked about several ongoing initiatives throughout the DoD Mentor-Protégé community.

- Army Graduated 8A Pilot Program
- Navy Commercial Mentors Pilot Program
- Air Force Broad Agency Announcement Program
- Defense Information Services Agency Program

Sponsors of the program also conduct eight mentor roundtables, he said. These are geographically dispersed around the

country, and gather together the mentors from the surrounding areas to discuss problems that are common to mentors within the area.

“We gain insights as to how we can better manage the program,” Schultz explained. “The mentors are strong, and we try to present the highlights of the program on a continuing basis so that there is a common understanding of how the program is run.”

Schultz said that when his office gets mentors together in a roundtable setting, it’s a different world from when they’re separate. He noted that mentors talk more freely when other mentors are there, and protégés talk freely when only protégés are there. “We all learn by it,” he said.

In addition to roundtables, Schultz shared an overture to his office from the Department of Agriculture to take over the Department of Agriculture Mentor-Protégé Program and associated funding.

Pooled training is another initiative on the table, according to Schultz, where mentors pool their training and make it available to protégés outside their companies who are participating in the DoD Mentor-Protégé Program.

The DoD Mentor-Protégé Program in 2001, Schultz said, is a very active program. “Overwhelmingly, the Mentor-Protégé Program is a strong, vibrant program. There’s great dynamics in it. There are hundreds of mentors and protégés out there who feel strongly about this program.”

“And that,” he concluded, “is why we’ve enjoyed our current level of success.”

Editor’s Note: To learn more about the DoD Mentor-Protégé Program, visit their Web site at http://www.acq.osd.mil/sadbu/mentor_protége/.

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Harmonization of Insensitive Munitions and Final Hazard Classification Tests

DoD Moving Toward Long-term Goals

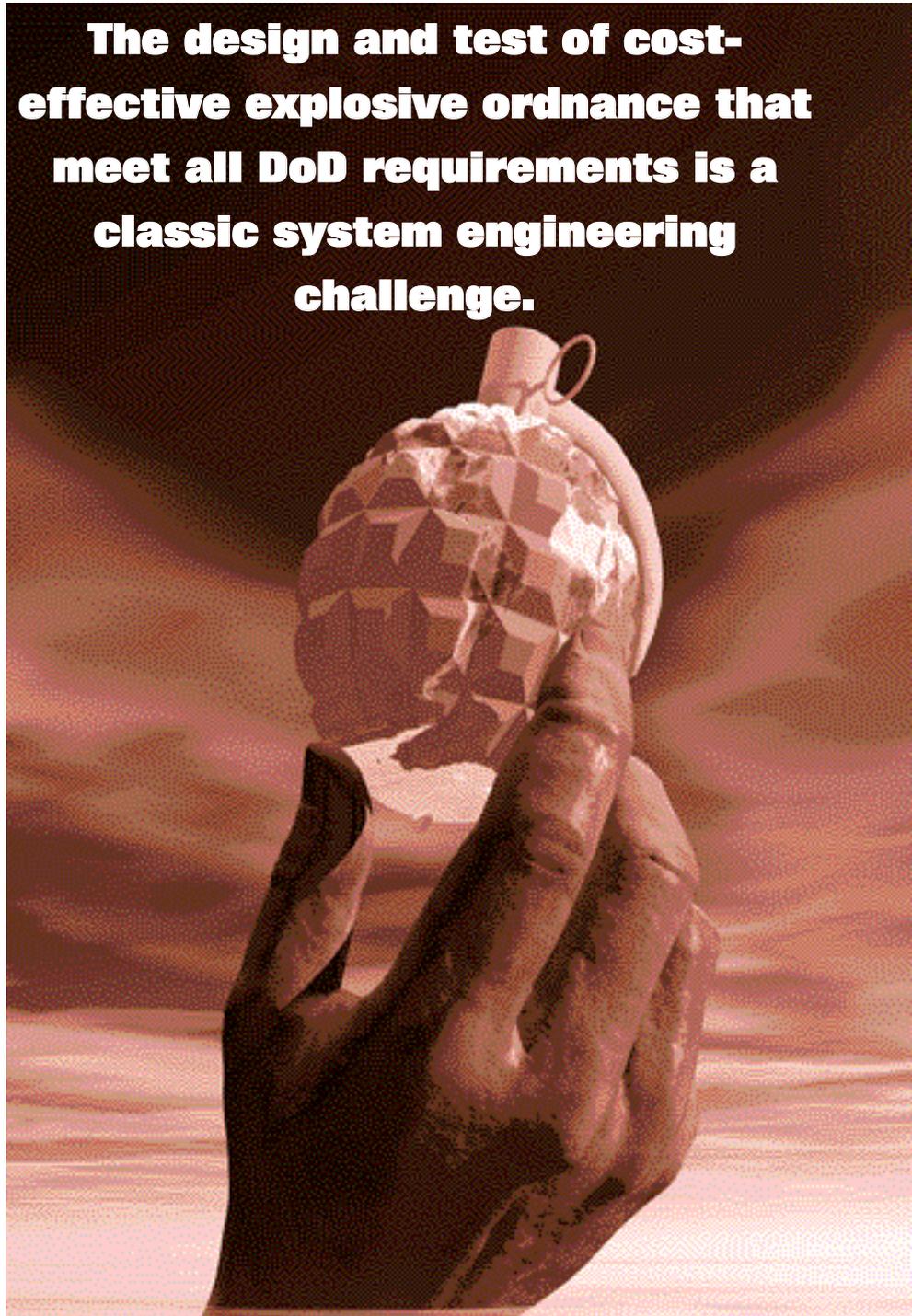
BRUCE D. WILLIAMSON

The design and test of cost-effective explosive ordnance that meet all DoD requirements is a classic system engineering challenge. However, in the case of munitions and weapons, the requirements to meet or exceed safety, survivability, and Insensitive Munitions (IM) thresholds make development of explosive ordnance much more difficult than developing commercial items.

Over the last 10 years, the DoD Ordnance community has witnessed significant technical breakthroughs in production of modern ammunition. Today's ammunition is much more resistant to destructive sympathetic reactions that can ensue from unplanned stimuli such as bullets, fragments, and fuel fires. However, the test procedures to evaluate such enhancements have not kept pace with these design advances.

For many years now, ordnance specialists have recognized that the IM tests and Final Hazard Classification (FHC) tests are quite similar. Historically, however, both sets of tests have been conducted independently, and still are today to a lesser degree. Program managers (PMs) have expressed interest in combining IM and FHC tests since 1992, when the PM Seek and Destroy Armor Office requested development of a harmonized test plan for their program. This task, completed by the U.S. Army Tank-automotive and Armaments Command-Armament Research, Development, and Engineering Center (TACOM-ARDEC), at Picatinny Arsenal, N.J., marked the

The design and test of cost-effective explosive ordnance that meet all DoD requirements is a classic system engineering challenge.



Williamson is a Munitions Systems Engineer, U.S. Army TACOM-ARDEC, Picatinny Arsenal, N.J.

first attempt to combine tests. The attempt was successful, saving the PM both time and money. Subsequently, many other PMs throughout DoD have requested development of combined IM/FHC test plans for their programs.

Joint Subgroup

Recognizing the value of IM/FHC test harmonization, the DoD IM Integrated Product Team (IPT) recently established a Joint subgroup to develop harmonization guidelines. Providing data needed for both IM and FHC testing in a single coordinated test program, the guidelines can be used to structure harmonized test plans. To date, the team has identified four IM tests and four FHC tests that can be combined. The IM sympathetic reaction test can be combined with the FHC stack test; the IM fast cook-off test can be combined with the FHC external fire stack test; and finally, both IM and FHC require bullet impact and slow cook-off tests that can be combined.

Even though harmonizing these tests for various explosive ordnance items has proved highly successful, total integration is not always possible. The subgroup, comprised of both IM test experts and FHC authorities, encounters a number of difficulties. For example, the FHC authorities want the bullet impact test conducted by firing a three-round rapid burst of 50-caliber into the test item, whereas the IM members want just one bullet of a particular design fired one at a time, whether it be a 50-caliber, 7.62-caliber, or some other bullet identified as a potential combat threat.

Another difficulty for the subgroup is agreement on the heating rate for the slow cook-off test. The Safety Authorities want a heating rate of 6 degrees Fahrenheit per hour while the IM testers want 50 degrees Fahrenheit per hour. These differences of opinion can be linked directly to the differences between the goals of the IM and safety policies.

The IM policy is to design munitions that can withstand combat and peacetime operational threats. Since operational threats are determined by conducting item-specific Threat and Hazard

Assessments, the IM community places a high value on designing and testing to "real-world" threats. By comparison, the safety community recognizes that a very small number of full-scale tests are conducted—usually only two or three. Consequently, they place a high value on testing to extreme conditions, thereby increasing confidence in the test results and validity of the safety levels they ultimately assign each tested munition. Accordingly, program management offices that develop a harmonized test plan must work closely with both the safety and IM authorities to resolve competing priorities. While this requires extra effort, most PMs and IPTs consider it time well spent whereby IM and FHC test costs can be reduced by 40 percent or more.

Work in Progress

The challenge of harmonizing IM and FHC has extended to the NATO arena, where various groups responsible for

writing IM and FHC NATO Standardization Agreements are building upon the U.S. knowledge base to establish international test procedures. U.S. representatives to these NATO groups continue to provide close support and guidance as member countries of the NATO alliance work together to realize the benefits from harmonization that have accrued in the U.S. defense arsenal.

Much work remains, but progress is steady. Soon DoD IPTs as well as members of the NATO alliance will acquire better skills to combine these tests. PMs interested in harmonizing tests or simply learning more about IM/FHC harmonization can contact their assigned IM, Safety Offices, or Safety Boards.

Editor's Note: The author welcomes questions or comments on this article. Contact him at Bwilliam@pica.army.mil.

DAU Seeks Accreditation

Defense Acquisition University President Frank J. Anderson Jr., signed and submitted to the Council on Occupational Education an *Application for Candidacy* on April 9, thus initiating the process leading to the accreditation of the Defense Acquisition University (DAU)—one of DoD's largest educational organizations.

The impetus for DAU's application was [then] Secretary of Defense William Cohen's November 1997 report entitled, *Defense Reform Initiative (DRI)*, which noted that only one-fifth of OSD-sponsored educational institutions were accredited by a recognized academic accreditation association. And only five of 37 educational and professional development programs had at least some courses certified for college credit by the American Council on Education. As a result of the DRI findings, Cohen directed the following action:

"The DoD Chancellor for Education and Professional Development will be charged with ensuring that by Jan. 1, 2000, every DoD institution will be accredited or actively pursuing accreditation and no educational program or course will be taught unless it is fully certified by recognized accreditation authorities for each respective field."

For information or questions on DAU's accreditation, contact Evelyn Layton, DAU Accreditation Liaison Officer, at (703) 805-4574 or e-mail evelyn.layton@dau.mil.

Aldridge Publishes Policy on Contractor Investment in Defense Programs



DEPARTMENT OF DEFENSE
ACQUISITION,
TECHNOLOGY AND
LOGISTICS

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010

MAY 16 2001

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Contractor Cost Sharing

In order to ensure that the companies the Department of Defense does business with are able to provide innovative, technologically excellent weapons and equipment at affordable prices, we must be concerned about the financial health of the defense industry. Financially sound companies are able to attract the resources and talent necessary to provide best value solutions to warfighters and taxpayers alike.

One of the ways to ensure these companies remain financially sound is to consider carefully the degree of investment they are making in defense programs. In today's environment of reduced defense spending and fewer new program starts, it is short-sighted to require contractor investment in defense research and development contracts. Instead, we should permit contractors to earn a reasonable return on these contracts in exchange for good performance. The only exception to this policy would be unusual situations where there is a reasonable probability of a potential commercial application related to the research and development effort.

Contractor investment in defense programs may take the following forms:

- Use of contractor independent research and development (IR&D) funds to subsidize defense contract research and development.
- Cost ceilings that in essence convert cost-type contracts into fixed-price contracts.
- Unreasonable capping of annual funding increments on research and development contracts.
- Award of development contracts at prices that are known to be less than the contractors' probable costs of performance.



None of these is an acceptable practice. Contractors should not be encouraged or required to supplement DoD appropriations by bearing a portion of defense contract costs, whether through use of their IR&D funds or profit dollars. I have asked my staff to carefully examine the acquisition strategy and execution for ACAT I programs to ensure that contractor cost sharing is not included, and to revise the DoD 5000-series directives to more completely incorporate this policy.

I believe this is a particularly important issue, and I expect the full support of the Military Departments and Defense Agencies to ensure that contractor investment is curtailed.



E. C. Aldridge, Jr.

A Contracting Officer in King Arthur's Court

Practical Guidance for Contracting Officers/Specialists Venturing Through the Legendary "King Arthur's Court" of the Contract Appeals Process

DENNIS LONGO



"And this isn't an asylum? I mean, it isn't a place where they cure crazy people?"

He said it wasn't.

"Well, then," I said, "either I am a lunatic, or something just as awful has happened. Now tell me, honest and true, where am I?"

"IN KING ARTHUR'S COURT."

I felt a mournful sinking at the heart, and muttered: "I shall never see my friends again — never, never again."

—Mark Twain
A Connecticut Yankee in
King Arthur's Court



Actually, I'm not a Contracting Officer. I'm a Procurement Analyst, and this article is written from my point of view based on my experiences and observations while on a developmental assignment at the Office of the Chief Trial Attorney, U.S. Army Litigation Center, Contract Appeals Division. I'm offering practical guidance through this article to Contracting Officers and Contract Specialists venturing through the legendary "King Arthur's Court" of the con-

tract appeals process. This is not legal advice.

First I'll discuss Alternative Dispute Resolution (ADR) and suggest some ADR methods, considerations on when to use ADR, and ADR resources. Then I'll point out the types of various government documents that a contractor may use to support a claim, the matter of a reasonable Contracting Officer's actions, and how a Contracting Officer or Contract Specialist can demonstrate reasonableness.

A discussion on the proceedings of an appeal will follow, offering suggestions on how to prepare a good "Rule 4" file, or Appeal File; Trial Attorney's Litigation file; the Contracting Officer's statement; as well as the discovery process, litigation risk, and what to expect at the appeal hearing.

I conclude the article with a discussion on the importance of maintaining a professional and responsive relationship with the Army Trial Attorney, an organizational description of the Contract Appeals Division, and how I was selected for assignment to the division. Please make yourselves comfortable and enjoy the ride....

Examining Issues From a Broad Perspective

"There was a dispute under the contract. I thought we were making progress resolving it. I thought I was being reason-

able. Then came the claim. I made my decision and now it's before the Board of Contract Appeals."

How many times do you read the pronoun "I" in that monologue? If it's more than once, this fictional Contracting Officer may have a vision problem. Working so intimately on our contracts we sometimes lose the ability to see clearly enough to examine issues from a broad perspective. We become so engaged that we view our work as one of our own offspring — emulating our personality, dreams, and aspirations. OK, maybe I went too far on that. But inevitably, a part of you is in your work, which has a somewhat subjective effect on your vision. Maybe it's time to take a step back, make some observations, and discuss how we should consider the approach to contract litigation.



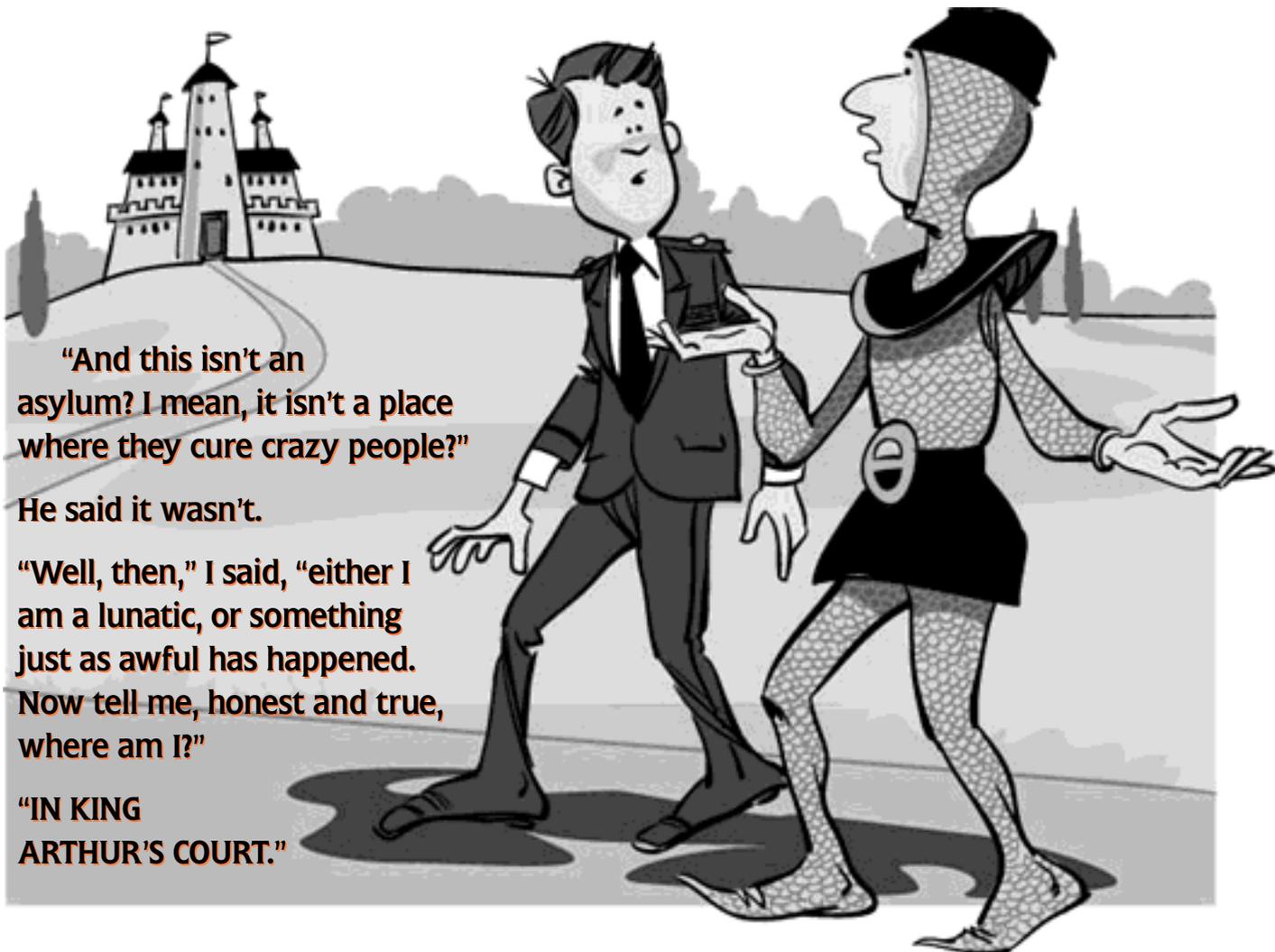
"Inherited ideas are a curious thing, and interesting to observe and examine. I had mine, the king and his people had theirs. In both cases they flowed in ruts worn deep by time and habit, and the man who should have proposed to divert them by reason and argument would have had a long contract on his hands."



Alternative Dispute Resolution

The Federal Acquisition Regulation (FAR) points out that Contracting Officers should consider ADR as a first ap-

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“And this isn’t an asylum? I mean, it isn’t a place where they cure crazy people?”

He said it wasn’t.

“Well, then,” I said, “either I am a lunatic, or something just as awful has happened. Now tell me, honest and true, where am I?”

“IN KING ARTHUR’S COURT.”

proach toward resolving any formal claim.¹ As depicted in the chart on the following page, ADR (FAR 33.214) offers both sides a variety of non-judicial options to resolve disputes from a business perspective.²

Things to Consider When Involved in an ADR Proceeding

Be aware of some things you just do not want to do during a process that makes an attempt to settle a controversy through reconciliation. These suggestions were made by an administrative judge who is now involved as a full-time mediator:

- You do not gain by making the other side angry. Watch your words, actions, and body language. Demonstrate professionalism and courtesy at all times.
- Know your facts. Refer to contemporaneous documentation to substantiate to your facts, and speak truthfully.
- Develop an appreciation of the other

side’s complaint. During ADR, issues may be exposed that you didn’t know about.

- Try to diffuse anger. Anger will affect how settlement is reached.
- The mediator is there to assist in resolving the dispute, not to judge. So talk to the other side, not the mediator.
- Most people want to settle. So when describing events or circumstances, use clear and simple language keeping that objective in mind.

Excellent resources are available on the Internet to learn more about ADR and assist you in selecting a course of action for your particular circumstances.

Air Force Resources

The Air Force maintains a Web site at <http://www.adr.af.mil> as a comprehensive resource for ADR by creating a library of links and ADR information from this site to other Federal Government Agen-

cies, and private organizations. Their *ADR Reference Book* discusses factors to consider in assessing whether ADR is appropriate; how to engage in ADR; choosing appropriate ADR techniques, neutrals, and elements of an issue-specific ADR agreement; fiscal/monetary considerations; and best practices. The Web site also features ADR products and services, links to ADR associations, legal research links, statutes, regulations, sample contract clauses, and memoranda of agreements.

OPM Resources

The Office of Personnel Management (OPM) posts its *Resource Guide* online at http://www.opm.gov/er/adrguide/adr_home.html to provide an overall picture of how the most common forms of ADR are being implemented in Federal Agencies. Summarizing a number of current ADR programs (including alternative discipline programs), it also includes descriptions of shared neutrals programs

ALTERNATIVE DISPUTE RESOLUTION METHODS

Negotiation

Communication between parties to a suit. The parties seek resolution by listening to each other's viewpoint.

Mediation

Negotiation facilitated by a neutral third party that does not have power to issue a decision. The parties decide the outcome themselves.

Fact Finding

An impartial third party collects information on the dispute and makes a report about relevant data or issues recommendations.

Arbitration

The parties choose a neutral person to hear their dispute and to resolve it by issuing a decision, which can be advisory or binding. Although adjudicative arbitration differs from litigation in that rules of evidence are not applicable, the timing is flexible and the process is expedited.

Early Neutral Evaluation

An impartial third party hears the issues in controversy and predicts what the outcome would be if the dispute were to be heard in litigation. Sometimes referred to as outcome prediction.

Mini Trial

Summary presentation of the case is presented to key the principal of each party and a neutral who is chosen by the parties to preside and render a decision.

bringing out those that are most favorable to the contractor, and not to the government. By describing those facts and their impact on contract cost or performance, the contractor may support its claim through a variety of persuasive data that were most likely generated by the Contracting Officer or the Contracting Officer's representatives. For example:

Contract Specifications. Many claims involve performance based on interpreting contract specifications. Specifications have been described anywhere within the spectrum of ambiguous³ to commercially impossible.

Pre-Solicitation or Pre-Proposal Conferences. Questions and responses – information announced before, during, and after conferences either by the government or prospective offerors – may be incorrectly worded or recorded, or misunderstood. Claims of this nature may result from failure to disclose proper information, a contradiction with contract specifications, or inferred or implied expectations of contract performance.

Correspondence. Data of this type include electronic mail (e-mail) among acquisition team members as well as electronic media issued among administrative, procuring, and quality personnel.

Inspection Records and Logs. Such records and logs can be an important source of information because they are typically written at the same time an event occurs. The Armed Services Board of Contract Appeals (ASBCA) frequently uses contemporaneous documents, particularly inspection records and logs, to confirm or disprove allegations in a claim.⁴

Memoranda of Meetings and Discussions. Meetings and discussions among parties to a contract are never "off the record" and should be documented. Inferences and implications often lead to changes that may have an adverse impact on contract cost, performance, or schedule.⁵ The Contracting Officer's price negotiation memorandum or other administrative records must be accurate

where agencies have collaborated to reduce the costs of Alternative Dispute Resolution. In addition, it provides a listing of training and resources available from federal and non-federal sources. It also provides selected ADR-related Web sites.

U.S. Army Litigation Center Resources

The Office of the Chief Trial Attorney, U.S. Army Litigation Center, also publishes a *Guide to ADR Policies and Procedures* in their "Toolbox" at <http://www.jagcnet.army.mil/cad>. This guide provides suggestions on how to analyze a particular dispute for its ADR potential and provides a ready ADR reference guide. Designed primarily for use by members of the Army Contract Appeals Division, others outside of the division are welcome – and encouraged – to use it as a definitive guide when-

ever they are considering ADR as a tool for disputes resolution.



"Sir Kay would have me in and exhibit me before King Arthur and his illustrious knights seated at the Table Round, and would brag about his exploit in capturing me, and would probably exaggerate the facts a little, but it wouldn't be good form for me to correct him, and not over safe, either; and when I was done being exhibited, then ho for the dungeon."



Contractor vs. Contracting Officer Square-off

The objective of a claim is to persuade the Contracting Officer that the contractor deserves relief. The claim probably was written by an opposing attorney who has reviewed all the facts and is



and written contemporaneously. The appearance of a single document may be significant in determining the facts at the time of agreement.⁶

Engineering Notebooks. Engineers, technicians, and scientists are often required to record their daily activities in some notebook form. These activity records may become extremely helpful during discovery to identify or substantiate the source of controversy in a dispute.

No Contracting Officer is an Island

There may be circumstances where Alternative Dispute Resolution is not appropriate. But in all cases, the Contracting Officer must be reasonable. The FAR says that the Contracting Officer must apply reasonable efforts to resolve all disputable matters by mutual agreement prior to submission of a claim (FAR 33.204).



“I was not the only prisoner present. There were twenty or more. Poor devils ... they were suffering sharp physical pain, of course; and weariness, and hunger and thirst, no doubt; and at least none had given them the comfort of a wash, or even the poor charity of a lotion for their wounds; yet you never heard them utter a moan or a groan, or saw them show any sign of restlessness, or any disposition to complain.”



In deciding initial matters of a contract claim, the role of the Contracting Officer may be a type of judge,⁷ and his or her final decision cannot be an isolated one.

A reasonable person, for example, may obtain and evaluate the advice of legal, customer, and subject matter experts⁸ prior to making a final decision on a claim. And if your efforts are not successful in resolving the dispute, the contractor may submit its claim against you to the agency Board of Contract Appeals⁹ or the Court of Federal Claims for resolution, despite your reasonable efforts to resolve the matter.



“In half a minute I was as naked as a pair of tongs! And dear, dear, to think of it: I was the only embarrassed person there. Everybody discussed me; and did it as unconcernedly as if I had been a cabbage. Queen Guenevere

was as naively interested as the rest, and said she had never seen anybody with legs just like mine before. It was the only compliment I got — if it was a compliment.”



As Contracting Officer, you can take significant measures to demonstrate that an action was reasonable. Put into practice, these measures will help you administer your contract, assist you in making informed decisions, and support your position in matters of protest or appeal.

Contemporaneous Documentation

The greatest contribution you can make to any contract file is contemporaneous documentation. A small e-mail or daily log entry that was written near the time of the event can have far greater influence than a mountain of depositions and sworn affidavits. Contract specialists who keep all the documents, notes, and modifications in an organized system as events occur are invaluable. Contracting officers and specialists should make a habit of documenting all their conversations with both government and industry. A pad of paper and pen should have a regular place at your workstation for this purpose.

Professional Relationships

Keep all relationships with contractors on a professional, and not personal, level. Personal relationships are characteristically more relaxed and unguarded, leaving a person prone to say more than what should be said, rather than maintaining an appropriate business posture.

Keep the Language and Process Simple

When writing a statement of work, evaluation plan, or performance criteria, use plain English. See if someone in your office can figure out a way to meet the criteria in a manner you or your customer do not desire. When writing instructions to offerors and proposal evaluation plans, ensure the offeror will produce something of his or her own independent thinking — lead the reader to form his or her own response. Also, watch out for unnecessary obligations we place on the government when writing contract spec-

ifications. Many specifications, for example, require the government to review a document or perform some other function within a specified period of time. Often, we can't meet that requirement or the time period is unrealistic.



“I was not the only prisoner present. There were twenty or more. Poor devils, many of them were maimed, hacked, carved, in a frightful way; and their hair, their faces, their clothing, were caked with black and stiffened drenchings of blood. They were suffering sharp physical pain, of course; and weariness, and hunger and thirst, no doubt; and at least none had given them the comfort of a wash, or even the poor charity of a lotion for their wounds; yet you never heard them utter a moan or a groan, or saw them show any sign of restlessness, or any disposition to complain.”



Use Your Experts

If there is disagreement within the activity on a particular contracting action, the Contracting Officer should get written input from all disciplines and stakeholders involved. Then the Contracting Officer should write down the reason for his or her decision (contemporaneous documentation) based on expert opinion. Those who will review your decision tend to suspect unreasonableness when the Contracting Officer did not solicit appropriate information or advice from appropriate entities, or when the Contracting Officer cannot write up a cogent rationale supporting the decision. Maintain a good working relationship with your local counsel. Get a legal review of your justification prior to issuing a Contracting Officer's final decision on a contract claim.



“Wherefore, being a practical Connecticut man, I now shoved this whole problem clear out of my mind till its appointed day and hour should come, in order that I might turn all my attention to the circumstances of the present moment, and be alert and ready to make the most out of them that could be made. One thing at a time, is my motto.”



Issue Final Decision When Warranted

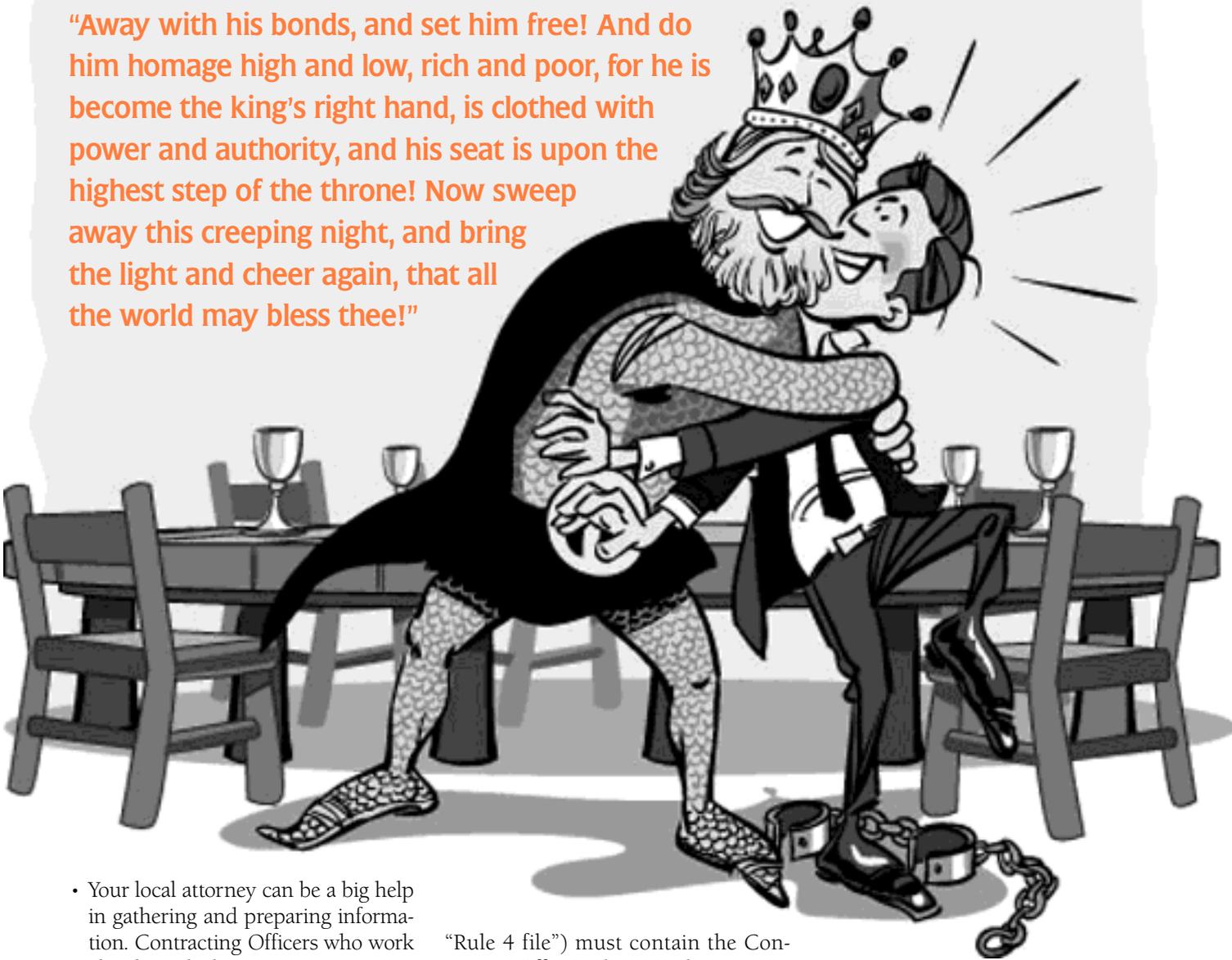
Avoid a deemed denial.¹⁰ Our Yankee friend's actions may have been appropriate in his particular circumstances, but when procedures allow or require a Contracting Officer to make a final decision, as in deciding a claim, the Contracting Officer must do so. Do not refrain from making such a decision and properly informing the contractor. Contracting Officers who do not respond and allow the contract to proceed without a final decision in the matter waive a good opportunity to frame the issues in a positive way and appear reasonable. And do not forget to obtain the legal review.

How Can I Present Credible Evidence Supporting Reasonable Action?

Glad you asked. Remember that the claim probably was written by an opposing attorney who has reviewed all the facts and is bringing out those that are most favorable to the contractor, and not to the government. Your government Trial Attorney reviewing these facts knows nothing about the government's case and is depending on you to get your side of the story. Your actions, knowledge, responsiveness, and the quality of contract management will help your Trial Attorney present credible evidence supporting that your actions were reasonable. In so doing, remember these criteria:

- A well-organized Contracting Officer or specialist will know the members of the acquisition team having specific knowledge in the technical, funding, safety, and engineering aspects of the acquisition. Know who the major players are in the decision-making process. Even though the Contracting Officer has the authority, to whom was the Contracting Officer giving deference? The customer? The Principal Assistant Responsible for Contracting, or PARC?
- Lost documents = lost credibility = appears unreasonable. Facts will change when people and documents cannot be found. The Contracting Officer must maintain the whereabouts of experts, witnesses, and documents because lost information cannot prove or disprove a point.

“Away with his bonds, and set him free! And do him homage high and low, rich and poor, for he is become the king’s right hand, is clothed with power and authority, and his seat is upon the highest step of the throne! Now sweep away this creeping night, and bring the light and cheer again, that all the world may bless thee!”



- Your local attorney can be a big help in gathering and preparing information. Contracting Officers who work closely with their contract attorney usually present a very focused statement on their side of the issues in a manner that a judge will find easy to comprehend.



“Now Sir Kay arose and began to fire up on his history-mill with me for fuel. It was time for me to feel serious, and I did.”



Pre-Hearing Procedures for Appeals

RULE 4

When a contract appeal is filed with the ASBCA, the Contracting Officer must prepare an Appeal File. Its contents will vary depending on the claim. ASBCA Rule 4 requires that the Appeal File (or

“Rule 4 file”) must contain the Contracting Officer’s decision, the contract, all correspondence between the parties relevant to the appeal, affidavits or statements of witnesses, and any additional information considered to be relevant to the appeal.¹¹ (See DFARS Appendix A, Part 2, Preliminary Procedures, Rule 4.)

The Rule 4 file is another chance to appear reasonable. A poorly documented Rule 4 file will immediately make the government appear unprepared and unreasonable. A well-documented Rule 4 file is the ASBCA’s first impression of the government’s opinion of the claim. The Contracting Officer should obtain a legal review of the Rule 4 file and concurrently send copies to the ASBCA, Appellant, and Trial Attorney as soon as possible.

SUGGESTIONS ON HOW TO PUT TOGETHER A GOOD RULE 4 FILE

- Start working on the Rule 4 file immediately. A list of documents required in the record for contract appeals is specified in the Defense Federal Acquisition Regulation Supplement (DFARS), Appendix A.¹² Coordinate your response with your legal and technical experts and task administrative personnel to make copies, compile, and tab the Rule 4 file.
- Look for a protected material legend. Make sure protected material is clearly marked with an approved legend.
- Some of the documents you intend to include in the Rule 4 file may be privileged material. Privileged material

may be attorney/client work products and communications, and must not be included in the Rule 4 file.

- Some of the documents you intend to include in the Rule 4 file may be proprietary information such as cost and pricing information, trade secrets, or proposal information. Before including any material of this type, you need to call the document's author for permission.
- Release only a redacted or "sanitized" version of the Rule 4 file after obtaining a legal review.
- Arrange documents in the Rule 4 file chronologically, making sure all pages are legible.
- Include relevant documents – exclude irrelevant documents. Throwing all the contract clauses, drawings, and specifications into the Rule 4 file without trying to decide which documents are relevant makes the agency look unfocused and unreasonable.
- Make frequent use of tabs. Important documents should be identified individually, rather than identifying the contract as "Tab 1" and contract correspondence as "Tab 2." The incongruity is obvious when an agency claims professional competence while asking the opposing counsel and judge to refer to unnumbered page 506 of the miscellaneous documents.
- Mark tabs numerically – not alphabetically.
- Number each page in each tab.
- Use reasonably sized binders. Do not try to put 1000 pages into one binder. Make sure binders aren't falling apart and binder rings do not overlap or tear pages.
- Three-ring binders should not be falling apart and tabs should be securely fastened.
- Make extensive use of CDs for recording and storing data that are available in some type of electronic media. Inform your Trial Attorney if you intend to include electronic media instead of paper in the Rule 4 file.
- Ask your major command for good examples of previously submitted Rule 4 files.
- File a complete, accurate, and descriptive index of documents at the beginning of each binder.



"Well, I liked the king, and as king I respected him..."



Not surprisingly, Administrative Judges at the ASBCA want R4s to be legible, orderly, and professional. Contracting activities often keep the best copies of documents for their own files leaving poorly copied and illegible documents in the ASBCA binders.

The Trial Attorney's Litigation File

In addition to the Rule 4 file, regulations require that the Army Contracting Officer also prepare a Trial Attorney's Litigation File (TALF) for submittal to the Army Chief Trial Attorney (Army Federal Acquisition Regulation Supplement [AFARS] 33.212-90-3(a)(2)). This file should include a Contracting Officer's statement of facts, a legal memo, witness list, and any additional information considered relevant to the claim. Do not send the TALF to the appellant or the Board, but be sure your local attorney reviews it. The Contracting Officer's statements and responses to the appellant's complaint should be expressed in clear, concise, simple language referring to tabbed contemporaneous documents in the Rule 4 file.



"Stay where you are. If any man moves — even the king — before I give him leave, I will blast him with thunder; I will consume him with lightnings!" The multitude sank meekly into their seats, and I was just expecting they would. Merlin hesitated a moment or two, and I was on pins and needles during that little while. Then he sat down, and I took a good breath; for I knew I was master of the situation now. Yes, I was in King Arthur's court, and I might as well make the most out of it I could."



Tips on How to Write a Good Contracting Officer's Statement

- Use plain English! Talk through the entire story using simple terms. Keep sentences short and concise.
- Do not expect glowing reviews of your Rule 4 file by sending a truckload of documents without a coherent story.

- Do expect to create a new Rule 4 file if you send a truckload of documents without a coherent story.
- Reference tabs frequently in the Rule 4 file.
- Keep your Contracting Officer statement "user friendly."
- Do not cite case law in the Contracting Officer statement unless you are explaining that a decision you made was based on case law. Case law belongs in the legal memo.
- Read the claim carefully. Make sure the contractor is asserting a claim and not merely requesting discussions on the controversy.
- Respond to each allegation in the claim thoroughly. Provide an accurate, factual description of what occurred and then make your rebuttal. Do not miss the point of the claimant's allegation.
- A rebuttal is most useful when tied directly to documents included in the Rule 4 file – and least useful when it doesn't.
- Recognize that the contract file may not contain all relevant or contemporaneous documentation. Documents related to your contract may be scattered all over the installation – at different offices of various responsibilities. Brief your acquisition team on the claim and establish which of them may have relevant documentation.
- Responsive documents include e-mail.

The Answer

Based on reviewing the Rule 4 file and TALF, the Trial Attorney will "Answer" the "Complaint" in two "Parts" within 30 days. Part One of the Answer will respond directly to the complaint either paragraph-by-paragraph or sentence-by-sentence. Part Two of the Answer will provide a factual analysis of the Army's¹³ side of the story.

To file an answer, your Trial Attorney needs to know whether the agency agrees or disagrees with each part of the complaint, and your version of the facts. In a very short amount of time, your Trial Attorney will need to know the entire story from a few key people who were involved with, or aware of, the circumstances.

Discovery

Discovery is a fact-finding mission by either side to obtain additional evidence to support their case. Discovery may request inspection of documents or sworn out-of-court testimony referred to as a deposition (DFARS Appendix A, Part 2, Preliminary Procedures, Rule 14). After the answer is filed, each side is allowed to review the other side's documents, evidence, and witnesses. This usually starts with requests for documents and "interrogatories," or written questions, in an attempt to get written answers to factual questions or seek an explanation of either party's contentions. An interrogatory may request a party to answer questions in writing, or may request a party to produce additional documents (DFARS Appendix A, Part 2, Preliminary Procedures, Rule 15).



"I hasted the message to our liege the king, and straightway he had me to his presence. He was frighted even to the marrow, and was minded to give order for your instant enlargement, and that you be clothed in fine raiment and lodged as befitted one so great; but then came Merlin and spoiled all; for he persuaded the king that you are mad, and know not where of you speak."



Discovery must be planned and, based on the complexity of the case, may require numerous, lengthy actions. Since discovery may require either side to depose witnesses, search government files (perhaps at various government locations), and visit subcontractor facilities and former employees, the Contracting Officer's assistance to the Trial Attorney in this process is vital.

Contracting Officers should expect to:

- Identify and locate expert witnesses.
- Assemble the team of individuals that planned and managed the acquisition.
- Locate and remove contract files from records holding.
- Review contract documents for relevancy.



"Don't put all your eggs in the settlement basket." If the other side is concerned enough to file an appeal, they probably will not settle on the activity's terms for the mere sake of making life easy for the Contracting Officer.



- Search internal paper and electronic correspondence for relevancy and establish communication with the author.
- Provide facilities for document research and conferences.

Interrogatories must be developed. Contracting Officers, members of the acquisition team, and other government witnesses must be prepared to construct probing questions that will assist the Trial Attorney's search for evidence to support the government's case. The Contracting Officer may also assist the Trial Attorney in forming responses to the appellant's interrogatories by identifying witnesses, documents, or other evidence to support the government's response.

Additionally, if you believe other areas may yield interrogatories or requests for documents that may prove fruitful, you should make those recommendations to your Trial Attorney. Keep in mind that the U.S. Army Litigation Center, Contract Appeals Division, only pays for the Trial Attorney's time and travel-related costs. All other costs associated with an appeal such as court reporter services, copies of transcripts, and other documents are borne by the customer; that is, the Program or Project Manager.

Trial Attorneys may request the Board to schedule the discovery process. Some Board Judges will set a discovery sched-

ule, and others will allow the parties to establish their own discovery schedule.

The discovery process is clearly a lengthy one. A pre-hearing conference may be a good way to streamline the discovery process, resolve some issues, and may possibly be a method to avoid further litigation. Holding a pre-hearing conference may be of mutual benefit where both sides:

- Come to an understanding of the pertinent issues of the claim.
- Establish some common ground on the claim.
- Agree on facts or proceedings (stipulations).
- Clarify positions, facts, or assertions.

It may not be unreasonable to expect a pre-hearing conference to lead to changes in the contractor's claim, the government's defense, or lead to ADR. A Contracting Officer should expect to walk away from a pre-hearing conference with a better understanding of the contractor's side of the story and how to arrive at a resolution.

Current practice at the ASBCA is not to immediately assign a judge to the appeal. Initially, appeals are assigned to an attorney who reports to a judge. Judges will, however, be assigned when needed such as for preliminary motions or to resolve discovery problems.

Optimistic Contracting Officers sometimes say that they do not need to prepare for litigation since they have ongoing settlement talks with the other side that will end soon. This is not necessarily the case. As one attorney phrased it, "Don't put all your eggs in the settlement basket." If the other side is concerned enough to file an appeal, they probably will not settle on the activity's terms for the mere sake of making life easy for the Contracting Officer.

When a settlement is not reached, the agency may do a half-effort rush job the day before a filing is due instead of creating a well-thought-out report. It's nice to know that settlement talks are ongoing, but keep in mind that the litigation

will continue on its separate track until the settlement is signed, sealed, and delivered.

Litigation Risk

Decision makers must consider the likelihood of the government losing the claim if it were to be adjudicated. Litigation risk is the probability that the contracting activity will suffer a loss under a claim. Litigation risk analysis is an exercise performed by your Trial Attorney to calculate the possible outcome of the claim based upon the contractor's allegations and evidence weighted against the government's defense. The litigation risk analysis is usually provided to the Contracting Officer in writing so that he or she may make an informed decision on what the claim is actually worth, based on available evidence, and what course of action should be taken to resolve the claim. Using this analysis, the Contracting Officer should confer with the customer, Program Manager, or Project Officer to decide on a planned approach toward resolving the claim.

Contracting Officer's Business Plan

Results of the conference between the Contracting Officer and Program Manager or Project Officer must be documented in a business plan prepared by the Contracting Officer. The purpose of the business plan is to document the Contracting Officer's actions with regard to the claim that takes into account the litigation risk, customer input, and final course of action to resolve the claim.

Beginning with a case synopsis describing the facts of the case to date, the plan should also include a summary of the claim and related allegations, the government's position as to the allegations, and a summary of the litigation risk. It should follow with a discussion of the Contracting Officer/Program Manager conference detailing the issues under consideration, a discussion of the analysis of those issues, and the final course of action.

The ASBCA Hearing

The Contracting Officer and members of the acquisition team must be available to appear before the ASBCA for a hearing. Hearings are "reasonably informal" but

will generally adhere to the Federal Rules of Evidence involving examination of witnesses, entering documents into evidence, and administrative motions. Your Trial Attorney will prepare you as to what to expect at the hearing or at any conference before the ASBCA, and will instruct you above all else to be truthful and to know the facts.



"Well, you know, when you perspire that way, in rivers, there comes a time when you — when you — well, when you itch. First it is one place; then another; then some more; and it goes on spreading and spreading, and at last the territory is all occupied, and nobody can imagine what you feel like, nor how unpleasant it is. And when it had got to the worst, and it seemed to me that I could not stand anything more..."



Cross-examination by opposing counsel may take on unfamiliar methods, and as a government witness you must not answer any question that you do not understand. If this happens, ask that the question be restated — it almost never comes out the same the second time around.

Opposing counsel may also approach you during cross examination with questions through characterizations — "Isn't it fair to say that it was impossible to keep the tolerance within the drawing's requirements?" Be aware of characterizations, and if you do not agree with them, say so and state the facts as you understand them. Finally, you should only testify to matters of which you have personal knowledge, unless you are asked to express an opinion.



"I was in a bad enough plight: seedy, drowsy, from want of sleep; weary from thrashing around, famished from long fasting; pining for a bath."



Professional Relationships

It's important to recognize a few things about your association with the Trial Attorney assigned to your case — whether

under an appeal or protest. Your relationship with the Trial Attorney must exhibit professionalism, diligence, and respect.

- Although the Trial Attorney is an advocate for the government, he or she must remain objective. Recognize that you have been living with this procurement for weeks — perhaps months, and you may have become emotionally involved with the issues. Keep an open mind. Your responsibility at this point is to cooperate and support the Trial Attorney.
- A claim may be submitted within six years after its accrual, except for contracts awarded prior to Oct. 1, 1995. (See FAR 33.206[a].) So if you inherited the contract, or weren't around when the contract was awarded, be aware that you are responsible as Contracting Officer to administer the appeal. Regardless of whether the contract was transferred to you for administration, the government's interests are at stake. It's your case, and judgments on the appeal are the responsibility of the contracting activity.
- Also recognize that it's not your responsibility to convince the Trial Attorney that your action was reasonable. Your Trial Attorney is trained to look at a protest or claim from different perspectives. Do not become threatened when asked to justify your actions, and do not become impatient or annoyed when your Trial Attorney disagrees with your assessment, position, or rebuttal. There may be more important legal issues at stake not immediately apparent to a layperson.
- Do not procrastinate. Be responsive to your Trial Attorney. Whenever he or she requests something from you, it's important that you provide an accurate, timely, and complete response.
- The Trial Attorney will want to incorporate all actions — right or wrong — into the government's case. If you have made a wrong decision along the way, let the Trial Attorney know ahead of time. Weaknesses need to be dealt with, not hidden.
- Be understanding with your Trial Attorney. Although he or she may not possess the same technical expertise

held by you or members of your acquisition team, you are all on the same team. Relate your expertise factually and impartially so your Trial Attorney may form the government's best defense.

- Recognize that the Trial Attorney is also a litigation manager. There are litigation risks that need to be evaluated that may have an effect on how the case will proceed. The Trial Attorney may suggest alternative methods of resolution.
- Communicate your level of authority to the Trial Attorney. How much authority do you have under the project or program? Do you or the Program Manager have ultimate decision authority in matters that relate to settling a claim? Conducting business with the ultimate decision authority rather than having a Contracting Officer act as a "go between" is much more efficient.



*"Away with his bonds, and set him free!
And do him homage, high and low, rich
and poor, for he is become the king's right
hand, is clothed with power and authority,
and his seat is upon the highest step of
the throne! Now sweep away this creeping
night, and bring the light and cheer again,
that all the world may bless thee."*

But I said:

*"That a common man should be shamed
before the world, is nothing; but it were
dishonor to the KING if any that saw his
minister naked should not also see him
delivered from his shame. If I might ask
that my clothes be brought again ..."*



Your Law Firm

The U.S. Army Litigation Center, Contract Appeals Division is "your law firm" for all contract appeals and, for most organizations,¹⁴ bid protest litigation. The Chief Trial Attorney is a colonel supported by two GM 15-level deputies; one deputy is a general law practitioner, and the other deputy specializes in bid protest litigation.

The Contract Appeals Division consists of three branches or trial teams, each

headed by a lieutenant colonel. Teams are composed of five to six Trial Attorneys at the captain and major level, one secretary, and four paralegals. Within the division are two branches: Administrative Support and Docket Management. The phone number for the Chief Trial Attorney at the Contract Appeals Division is (703) 696-1511; DSN 426-1511.

I suggest you visit the Contract Appeals Division Web site at <http://www.jagc-net.army.mil/cad> and review their "Toolbox" for ASBCA lessons learned, General Accounting Office (GAO) lessons learned, the *GAO Bid Protest Guide*, ADR, the *Contract Law Deskbook*, and much more.

At GAO's Web site (<http://www.gao.gov>), you may obtain recent Comptroller General Procurement Decisions on bid protests or search for decisions related to a specific subject. The ASBCA Web site at <http://www.law.gwu.edu/asbca/> features a search capability for the text of decisions rendered by the Board since 1996.

A Word to All Contracting Officers/Specialists

My developmental assignment at the Army Litigation Center, U.S. Army Legal Services Agency was made possible through the Army Civilian Training, Education, and Development System (ACTEDS) long-term training program. (See the ACTEDS training catalog at <http://www.cpol.army.mil/>.)

The assignment afforded me the opportunity to gain a first-hand understanding of protest and dispute litigation. I highly recommend that any 1102 contracting officer or specialist take advantage of the unique opportunity offered through this program of working at the Contract Appeals Division.

Editor's Note: For a complete list of the 14 endnotes referenced in this article, or to question the author or comment on this article, contact him at dennis.longo@sbccom.apgea.army.mil.

DAU Vice President/DSMC Commandant Nominated for Promotion to Brigadier General



Secretary of Defense Donald H. Rumsfeld announced June 5, 2001, that the President has nominated 40 Army Competitive Category colonels for promotion to the grade of brigadier general. Army Col. James R. Moran, Vice President, Defense Acquisition University/Commandant, Defense Systems Management College (DAU-DSMC), Fort Belvoir, Va., was among the 40 colonels selected for promotion. Moran was assigned to DAU-DSMC April 1, 2001.

DLAMP Applications Due by August 31

The solicitation period for submission of applications for the Defense Leadership and Management Program (DLAMP) Class of 2002 is now open. Applications must be received no later than Aug. 31, 2001.

DLAMP, a joint program of civilian leader training, education, and development across the Department of Defense (DoD), provides the framework for developing civilians with a DoD-wide capability from which selection may be made to fill approximately 3,000 key leadership positions. These key positions are at grade GS/GM-14 and above and require a Department-wide perspective.

For application procedures or more information about the program, visit the DLAMP Home Page at <http://dlamp.dfas.mil/info.html>.

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- More links to other professional and social organizations.

- Credit toward acquisition workforce continuing education requirements by attending DSMCAA's Annual Symposium.
- Satisfaction of supporting a value-added organization.
- Current information on other selected acquisition subjects and issues provided in the *DSMCAA Newsletter*.
- Opportunities to demonstrate professional expertise through publication of articles in the *DSMCAA Newsletter* or presentation of papers during the Annual Symposium.

Join this select group of professionals who are proud of their achievements as DSMC graduates, thankful for the skills and expertise they possess, and ready to make additional contributions to the security and progress of our nation.

Take advantage of this opportunity to help yourself and others. Call (703) 960-6802 to join DSMCAA or complete one of the forms (opposite page). Mail it to the address shown. To learn more about DSMCAA or register online using a credit card, visit <http://www.dsmcaa.org>.



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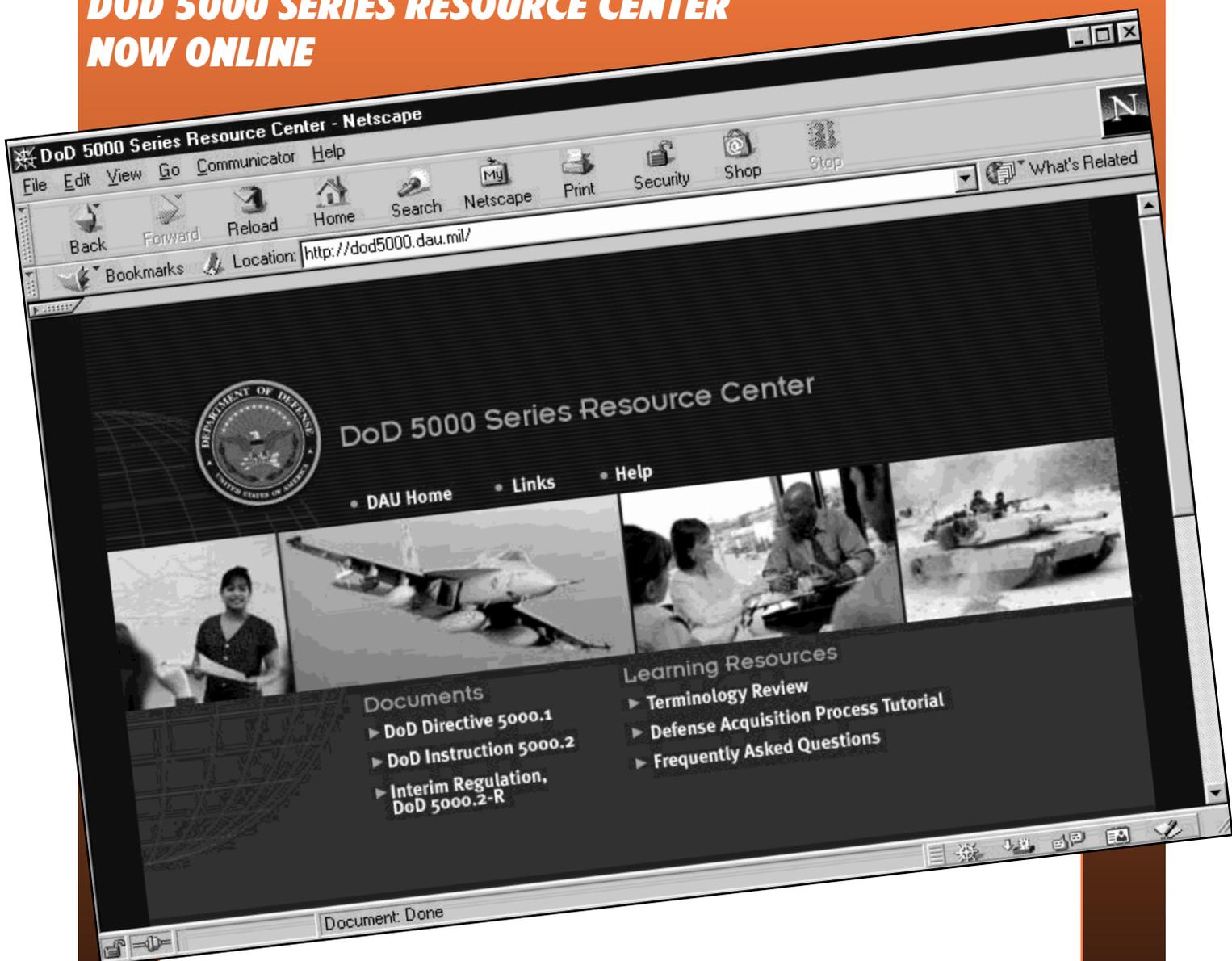
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DAU ESTABLISHES NEW WEB SITE

**DoD 5000 SERIES RESOURCE CENTER
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If you're looking for the latest changes to the DoD 5000 Series documents, you need look no further than DAU's new Web site: the [DoD 5000 Series Resource Center](http://dod5000.dau.mil). View copies of the new DoD 5000 series policy and procedures documents, or take advantage of a great tutorial that walks you through the new 5000 governing principles and management framework. Also see frequently asked questions about the new 5000, and a thorough terminology reference.

<http://dod5000.dau.mil>

RMA Software Revolutionizing Military Medical Supply System

Pulling the Military Supply Chain with the Enticement of Lower Costs

MARK GINDELE



To close the gap between the increased medical supply levels required to fight two major wars vs. the actual levels in DoD's current medical supply inventory, the nation's military forces need to buy \$2 billion worth of medical supplies.

But before you pick up the phone to call your local representative and complain about the ill-funded military, understand that the people tasked with the responsibility to maintain the medical arm of the military supply system aren't at all worried about the apparent shortfall. Indeed, many are passing the time on the Internet.

Responding to Change

They're using the Defense Department's latest business intelligence software program – Readiness Management Application (RMA) – revolutionizing how the military prepares for the next deployment and changing the way planners think.

To support the Department of Defense (DoD) and its ability to mobilize – the military term for putting the right mix of soldiers and equipment in a conflict situation as quickly as possible – the defense planners in Philadelphia studied the way medical units mobilized in the past. And what they saw they didn't like.

Military doctrine in the past called for buying medical supplies such as pharmaceuticals, medical equipment, medical and surgical products, radiological film, and dental supplies, and storing



NATO Operation Joint Guardian. Preparing for surgery at Task Force Med Falcon, Camp Bondsteel, Kosovo, January 2001.

U.S. Army photo

these thousands of items in warehouses around the world. The theory followed that the items could be pulled out of storage when needed. Of course the military readiness analysts directed the buyers of such items to buy sufficient supplies to support hundreds of thousands of warfighters and civilians. So the quantities of warehouses and supplies are large in number.

Along with the vast warehouses and products, military logisticians need to

sustain all warehoused products. They need to catalog, database, heat, refrigerate, move, identify, ship, repackage, and replenish items. To do this, they need people, trucks, forklifts, computers, electricity, and all the other bits and pieces needed to keep the warehouses stocked and ready to begin issuing items should the need arise. And don't forget the auditors who periodically need to visit the warehouses and count all the government-owned "ready to issue" material.

Gindele is an adjunct professor of e-Business at Bucks County Community College, Pa.

Prosthetic supplies — facial feature replacements used during facial reconstruction surgery. U.S. Air Force photo



An extra amount of care goes into medical products that doesn't ordinarily go into all the government-owned military supplies. Pharmaceuticals must be cared for in temperature-controlled environments, and many have limited shelf lives. Same thing applies to film and many medical products. Also, some pharmaceuticals are sought for illegal purposes, so many items designated "controlled substances" are watched and cared for more carefully than others. Even with all the care and precautions, medical supplies lose their potency, expire, and must be replaced. New and improved drugs or methodologies also surpass many of the items in the storage centers, so constant turnover of the old for the new prevails.

Challenging the Existing System

Planners recognized that the old system of buying, storing, maintaining, and disposing of pharmaceuticals and medical items was very costly and labor-intensive. No one ever questioned the need to incur expenses; it was simply the cost of maintaining readiness. The old way of buying, storing, and maintaining was the only way most of the military supply workforce had ever known. Challenging an existing system, particularly one that is thought to be working well, is very difficult to do. Making changes is even harder.

The catalyst for change in the military medical supply system came with the Persian Gulf War. With the call-up of over 500,000 troops, the readiness arm was ready to go into action. Throughout

the world, the medical warehouse doors swung open, and the logisticians started shipping all the medical items identified as needed. Also deployed at this time of urgency were the military doctors, many on reserve status, called from their private hospitals and practices to support their country.

When the two met in the Gulf — the medical staff and medical supplies that is — a common refrain echoed all the way back to Philadelphia. "I'm not going to use this old stuff," they said. "We don't use this equipment or these pharmaceuticals in our private hospitals, and we didn't train in medical school with them. We need the latest products to support the latest procedures and therapies." Furthermore, many items in the warehouses were too old and not in any condition to be used.

Almost immediately, the procurement specialists in Philadelphia started dusting off their contracting officer's certificates and picking up their phones to buy the latest medical products. They bought surgical equipment and surgical gloves; pharmaceuticals, bandages, and tapes were on the list, as were bed sheets, operating tables, and surgical gowns. The highly motivated workforce knew that it was challenging enough to operate in a desert environment let alone with unfamiliar, outdated equipment and supplies.

By the time the auditors finished tallying up the bill, 92 percent of all the items used by the Gulf War medical corps were supplied from new acquisitions. Only 8 percent of the depot stocks were usable. The day of questioning the supply chain had arrived.

Could the existing system be improved? Does just-in-time inventory work in the medical world the way it works in the manufacturing industry? If we depend on industry to be our primary suppliers and not the government-owned warehouse system, can industry be trusted to deliver just in time? Or, will changes to the conventional wisdom increase the risks to our wounded servicemembers? Running out of certain supplies may



Performing oral dental surgery on a patient aboard the USS Kitty Hawk. U.S. Navy photo

require that our doctors switch to less effective techniques or postpone treatment. Clearly, any changes would need to establish goals of improving the supply chain, while concurrently decreasing operational risk.

Improving Performance

The first big hurdle to overcome is identifying the military's item inventory in terms private firms can match to their products. The military uses a unique numbering system, called National Stock Numbers (NSN), while private sources use their own system. Trying to buy an item identified by NSN from a medical supplier would be a futile effort. Doing so would probably result in the vendor forwarding a catalog and asking the government buyer to pick something they [the private vendor] can identify.

The next hurdle would be soliciting and receiving a reasonable amount of assurance that the item in the catalog is available for shipment. Anyone who tries to use catalogs for buying gifts realizes how hard this can be. Typically, you may find something you like, call the 1-800 number, place your order, then three weeks later receive a notice in the mail that the item is back-ordered. Imagine the look on the surgeon's face when told, "Those sutures you need won't be in until next week."

The last important piece of this project is to build a system that is maintainable. What happens when manufacturers and suppliers merge with others? Do their product numbers stay the same or change? What happens if a vendor decides to stop offering a specific product line? How about when a supplier decides to improve a product and the recommended replacement is not suitable to the clinicians? Changing the packaging size alone often changes the product number, without any change to the product itself.

Still thinking this is not a monumental undertaking?

Consider, for example, how many times the average person changes his or her identification package. The average per-

son moves every four years, changing his or her telephone number along the way. Additionally, cell phones and beeper numbers change, and don't forget those pesky changes to area codes! Every time you change your Internet service provider, a new e-mail address must be learned.

You go to great lengths to notify all your important contacts that you changed your number, address, and e-mail address. But somehow a few will always slip through the cracks. Inevitably, you can count on your mail going to your old address for years to come.

For some uses, standard numbering systems exist that will maintain continuity for long periods of time such as Social Security Numbers to identify taxpaying citizens. In pharmaceutical products, a standard numbering system – the NDC [national drug code] – provides this identification.

However, for non-pharmaceutical products, no standard nomenclature system exists. Each manufacturer is free to use any numbering system, nomenclature system, and catalog system. Many manufacturers incur great costs to differentiate their products from their competitor's products. This allows them to price their product based on non-tangible factors. Facilitating a common numbering system would negate their differentiation scheme. For this reason, when you buy a medical/surgical product, you need to state both the manufacturer and catalog number given the product by its manufacturer.

Every two years the military's supply center – Defense Supply Center, Philadelphia (DSCP) – receives a list of items the Military Services project they will need in the event their units are called to defend the nation. These lists are compiled and analyzed by supply specialists. DSCP then asks industry, by way of a survey, if they could supply these items in an emergency situation, where the government would need substantial quantities in a given time frame. These responses are compared to the "shortfalls" reported by the Services, and

contingency plans are drafted to find suppliers for those items that industry cannot supply within a given timeframe.

Readiness Management Application — RMA

RMA uniquely addresses the supply question. At first, system analysts thought of trying to gain access to suppliers' inventory databases. However, all such efforts proved to be futile. First, vendors responded that they had no contractual reason to permit the government access. Second, access to this information in the wrong hands could seriously compromise the highly competitive pharmaceutical industry. Since military sales account for only a small percentage of a vendor's business, the government didn't have the clout to force vendors to oblige.

The approach taken by RMA was to buy medical sales data from private sources that collect this information from the pharmaceutical industry. RMA would track this information on a monthly basis for each commercially selling product. From the sales information, RMA analysts can identify trends – whether positive, neutral, or negative – for products. They can also see quantities being sold. Using a healthy margin to account for some statistical and data collection errors, RMA can deduce production quantities by analyzing sales trends. Stated simply, RMA can tell whether a product is available by first determining if it is selling.

RMA provides the link from the military numbering system to commercial nomenclature to all commercially selling products that meet the military requirement. It also identifies the government's need for a product and shows if the product is available in the quantities required based on actual sales figures. RMA also offers the military several other features that allow better resource planning.

For example, RMA also identifies sales figures for commercially selling products to military-owned facilities. It allows analysts to see if military facilities are using the popular commercial products. RMA can also determine if military doc-

tors are using the products that medical readiness analysts will actually supply in the event of a surge. This business intelligence information will allow the military to align its products of choice in its own facilities during peacetime to items that can be supplied in quantities during a surge.

Standards analysts, the personnel responsible for minimizing the products available in order to save space and weight, can also use RMA to identify popular items. Looking at the results of a particular search on RMA, typically you might see over 10 selling products that function exactly the same (generic equivalents). However, one product may represent 90 percent of all sales. Standards specialists may use this information to limit their availability list to only this one item.

With RMA online, the “warehouse” is no longer a building somewhere, but exists virtually on vendors’ shelves. The products are fresh, current, and readily available. And the only investment is in maintaining the data application program, not in stocking products that the military may never use. The new arrangement gives DoD access to \$10 worth of materiel for every \$1 invested. Currently, the contingency contracts have access to \$100 million in medical materiel, and with the 10:1 cost-reduction ratio, a savings of \$90 million would result.

RMA Version 1.0 (pharmaceuticals only) was fielded in July 2000 and is generating rave reviews from the entire spectrum of users from junior to flag-level logisticians. Developed under the Defense Medical Logistics Standard Support program, authorized users can access the RMA application via the DSCP Medical Portal – *DMMonline*.

Future of RMA

Future upgrades for RMA are identified, but more and more ideas are being generated as more users are coming online. For military applications, many of which do not get used and atrophy on the Web, such a positive feedback is truly a success story.

Some military medical visionaries see the RMA as the future for the military medical community, even to the point of providing the application to prime vendors who have regional contracts to provide medical supplies. Vendors could add data fields, including pricing information for their regions, in accordance with their contracts, allowing logisticians to research, compare, plan, and order – all from one application. RMA customers will be able to control everything from the price they pay to how and when goods and services are delivered, and how they’re billed.

Another suggestion for RMA is to combine the user information from the commercial sector, the military treatment facilities, and the National Mail Order Pharmaceutical Program, which issues 170,000 prescriptions a month. With all this usage data, the military would have a better model than available commercially. They could use the data to quickly identify trends and anticipate future needs. With the information, they could also use it to fine-tune their national contracts program. Some have even suggested selling access to industry.

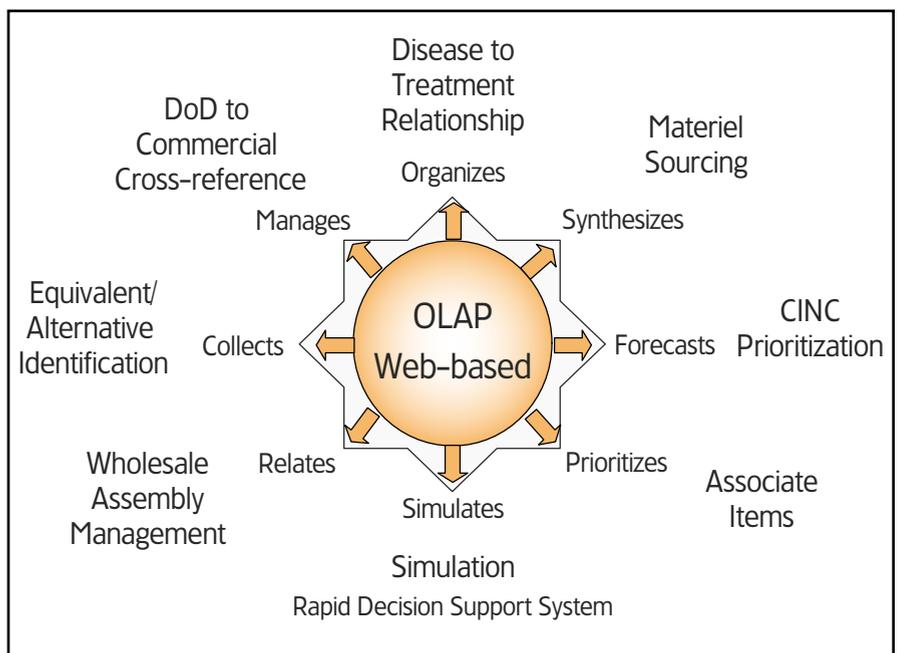
RMA has the potential to transform the medical supply chain, and has already demonstrated a unique ability to take

advantage of existing data sources and technology. By offering customers a single application for medical logistics, DSCP can expand its collection and analysis of usage data. With new business intelligence, DSCP can create an enterprise Web-based organization to offer new products, partner with new companies, and optimize its ability to offer value-added services. Simply stated, RMA works, and the military’s supply chain partners should be implementing it now.

While the requirements defined at the beginning of the RMA program envisioned a user community and purpose, no one counted on the success of RMA to introduce new requirements in the quantities now being received. Developing a program with multiple information sources and providing solutions to widely recognized inefficiencies will invariably lead to unexpected users and new demands. Program Managers need to recognize these new demands as a byproduct of their success, and count the new requests as the price of expansion.

Editor’s Note: The author welcomes questions or comments on this article. Contact him at gindelm73242@cs.com.

RMA Capabilities



P M

Program Manager Magazine is the ideal forum for publishing your next article on acquisition reform, acquisition legislation, or acquisition current policies and practices. You are the subject matter experts – send us your successes, failures, lessons learned, or long-range vision for what may or may not work and why. In the process, gain peer exposure and recognition as a subject matter expert in your field. We want to hear from you and your associates – **today**.

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For submission guidelines, contact the editor (703) 805-2892 or visit our Web site at <http://www.dau.mil/pubs/pubs-main.htm>



DoD Presents 2001 Value Engineering Achievement Awards

The 2001 Department of Defense Value Engineering Achievement Awards were presented [June 6, 2001] in a ceremony held at the Pentagon. David R. Oliver, [former] Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, made the presentations.

Value engineering is a systematic process to analyze functions in hopes of identifying actions to reduce the production or operations cost of systems, equipment, facilities, services, or supplies. The objective is to reduce total cost of ownership while retaining required system performance and quality.

“We continue to improve our value engineering program to make it a more viable tool to optimize the best values in total ownership cost and allow us to achieve all necessary performance better, faster, and cheaper,” Oliver said. During last fiscal year, 1,757 in-house value engineering proposals and contractor-initiated value engineering change proposals were accepted with projected savings of \$1.12 billion.

The Value Engineering Awards Program is a highly visible acknowledgment of exemplary achievements and encourages additional projects to improve in-house and contractor productivity. An award winner from each DoD component was eligible for selection in the following seven categories: 1) program management; 2) individual/team; 3) procurement/contract administration; 4) value engineering professional; 5) field command; 6) installation; and 7) contractor. Additional “special” awards were given to recognize innovative applications or approaches that expanded the traditional scope of value engineering use.

Recipients of the 2001 Department of Defense Value Engineering Awards are listed on the Web at <http://www.defenselink.mil/news/Jun2001/d20010606vea.pdf>.

Editor’s Note: This information is in the public domain at <http://www.defenselink.mil/news>.

West Point Cadets, Faculty Partner with PM FATDS

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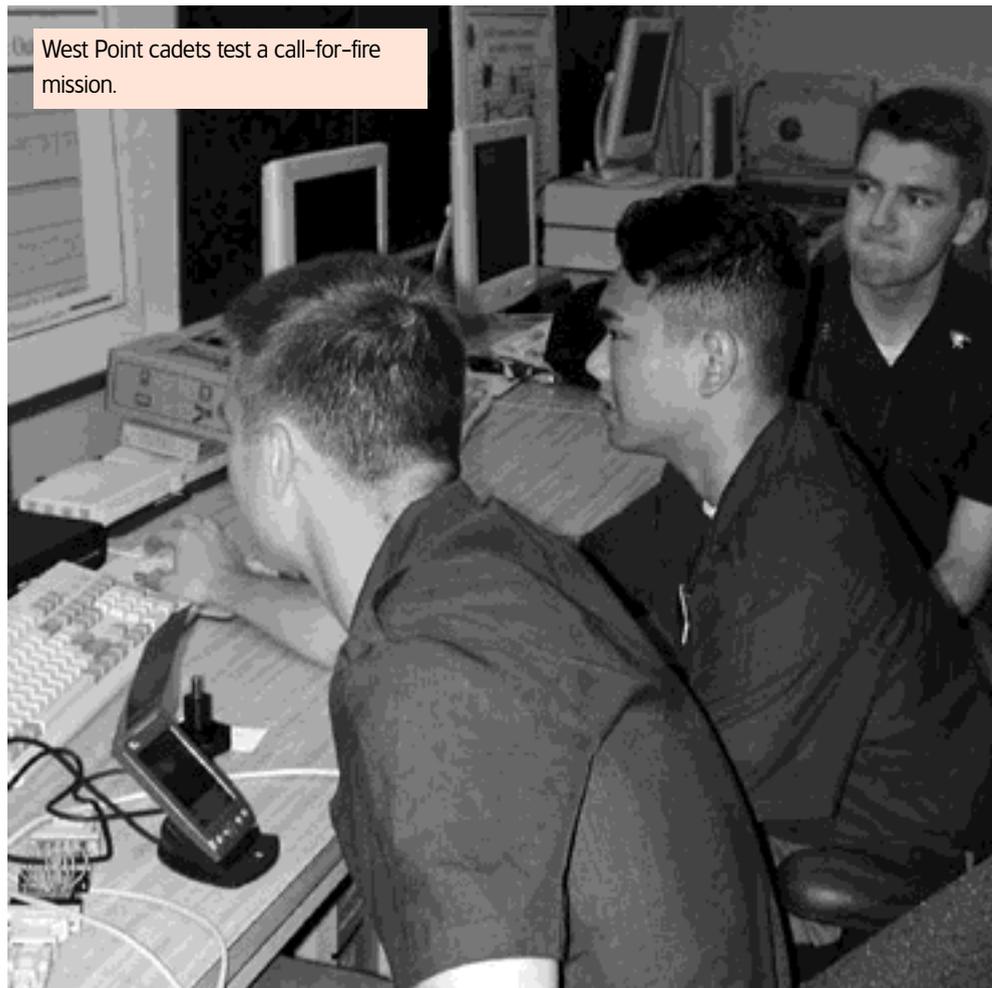
The United States Military Academy (USMA) at West Point has been educating, training, and inspiring the Army's cadre of future military leaders for two centuries.

The "West Point Experience" for cadets has continually changed to keep pace with the evolution of technology and needs of our nation, while the Institution itself has remained true to its core values-based culture.

The Military Academy accomplishes today's mission through several fully coordinated and integrated programs that focus on intellectual, physical, military, and moral-ethical development. The rapid advance of Information Technology (IT), which has impacted our everyday lives dramatically, has also greatly influenced USMA's Academic Program. Revised program goals, which are designed specifically to meet the intellectual requirements of a commissioned officer in today's Army, reflect increased emphasis on Mathematics and Science, Engineering and Technology, and IT.

Technology-Driven Change

The Materiel Development community has similarly walked a path of technology-driven change to meet the complex evolving needs of the "digitized" warfighter leading the Army's Objective Force. Its Battle Command solution has capitalized on the dynamic innovations



in IT made by the private sector and transformed the essence of Command and Control (C2). The Project Manager for Field Artillery Tactical Data Systems

(PM FATDS), responsible for developing, acquiring, and fielding Fires and Effects C2 systems, represents one such activity that has successfully balanced

Manz serves as the Deputy PM FATDS, Fort Monmouth, N.J. He holds an M.P.A. and B.S.E.E. A member of the Army Acquisition Corps, he is also a Senior Member of the Institute of Electrical & Electronics Engineers. Surdu is an Infantry officer and member of the Army Acquisition Corps, West Point, N.Y. He holds a Ph.D. in computer science from Texas A&M University. James is an Associate Professor in the Department of Electrical Engineering & Computer Science at the U.S. Military Academy, West Point, N.Y. Ragsdale is an Infantry officer and member of the Army Acquisition Corps, West Point, N.Y. His assignments include the 82nd Airborne Division and the 5th Ranger Training Battalion.



Information Warfare Analysis & Research (IWAR) Lab. Pictured are Single Channel Ground to Air Radio System (SINCGARS) radios used to talk to the Advanced Field Artillery Tactical Data System emulator.

current mission needs while proactively looking forward to reap positive benefits of future IT advancements.

Over the last two years, these two organizations have collaborated on several projects of mutual benefit. USMA's cadets and faculty have been academically and professionally involved in interesting, military-relevant, IT-related initiatives, while PM FATDS has leveraged non-parochial expert insight into challenging, IT-based issues and market-driven materiel solutions.



Cadets' Software Development Team

Dual Information Warfare Effort

Future command and control systems for Joint Task Forces will be a network of applications running in a distributed environment. These applications, such as the Advanced Field Artillery Tactical Data System, will partially depend on timely distribution of data stored in the Joint Common Data Base. This project aims to create an initial capability for conducting metrics-based experiments concerning performance of distributed applications under a variety of operational conditions.

The test bed will use Army-developed models of the 4th Infantry Division network and the OPNET Modeler commercial network-modeling tool to achieve a capability to evaluate performance characteristics of distributed applications. Implementation of the test bed will depend upon use of a new capability for the OPNET Modeler – the Application Characterization Environment module, together with elements of the U.S. Army Communications-Electronics Command Research, Development, and Engineering Center-developed Next Generation Performance Model to support application assessments at the platform layer or network layer.

By modeling portions of the Army tactical local area network or the Joint Task Force network, USMA's Information Warfare Analysis and Research Laboratory will assess network-level attacks against C2 systems such as the Advanced Field Artillery Tactical Data System.

Using real-world Army Fire Support C2 and communications equipment, experiments will be conducted to estimate database latency metrics for mobile call-for-fire events. The network model can then be used to estimate database latencies for distribution of the data throughout the larger tactical Internet. By using OPNET's Defense Modeling and Simulation Office High-Level Architecture module to control the synchronization of distributed applications using timed events, it may be feasible to estimate latencies in a larger distributed context.

To determine whether delays in data base access times are “normal,” due to equipment failures, or potentially deliberate interference with information system operation, the first step is answering such questions as:

- What is the data base access time for the Advanced Field Artillery Tactical Data System to obtain item X from the Joint Common Data Base?
- What is the change in the data base access time for the Advanced Field Artillery Tactical Data System to obtain item X from the Joint Common Data Base when change Y occurs in the network?

Dismounted Warrior Palm-Sized Device Market Survey

When informed that the prime contractor for the Handheld Terminal Unit (HTU) would shortly discontinue its support for this platform, PM FATDS wanted to explore the potential use of lighter weight, less expensive, commercial off-the-shelf (COTS) hardware platforms as replacement systems.

The faculty and staff at West Point were engaged to conduct a quick, cost-effective, and non-parochial market survey. In short order, the officers and civilian instructors at West Point scoured the literature, went to trade shows, purchased a number of boxes for evaluation, and provided a report that rated the latest available COTS hardware against the PM’s requirements. While the faculty and staff determined that, at the time of the survey, no COTS hardware met the PM’s requirements, they identified several promising candidates for follow-up review in the next commercial technology release cycle.

All investigators participating in this project had graduate degrees in electrical engineering or computer science, most with Ph.D.’s. The team included many active-duty Army officers with years of field experience. The veracity of their report was underscored by the fact that West Point did not “have a dog in the fight” and could, therefore, make an impartial, objective assessment.

For the faculty at West Point, the market survey project proved to be an opportunity to help solve an Army problem and work on a product that will help U.S. soldiers fight more effectively in future combat. For the PM, the project provided a very inexpensive and impartial assessment of technology in a short period of time.

Pocket-sized Forward Entry Device Project

Soon after West Point staff and faculty conducted the market survey, PM FATDS embarked on a multifaceted effort to develop a Pocket-sized Forward Entry Device for the dismounted Forward Observer. In addition to their prime contractor, the PM proposed that West Point cadets explore the application of leading-edge commercial technologies to demonstrate proof-of-concepts for replacing portions of the existing HTU-dependent Forward Observer solution with platform-independent software running on a variety of COTS personal digital assistants. This proposal provided an excellent opportunity for USMA since all West Point cadets, regardless of major, must complete a five-course engineering sequence – culminating in a senior design project.

USMA chose four Computer Science and three Electrical Engineering cadets to work on the proof-of-concepts. Two computer science active-duty faculty members and one electrical engineering active-duty faculty member acted as advisors and mentors to the cadet team.

The PM clearly understood that it would be unreasonable to expect these cadets – in addition to 18 credits of course work, parades, athletics, leadership activities, and military training – to build a complete working system in one semester. Nevertheless, PM FATDS offered to sponsor this effort since the project exposed the nation’s future military leaders to the latest commercial information technologies with tangible military relevancy.

It should be noted that the PM’s prime Pocket-sized Forward Entry Device contractor would take a lower-risk approach

to ensure the delivery of a fieldable system, while maintaining awareness of West Point’s progress. Any technology “nuggets of success” identified by USMA would be leveraged and, as appropriate, incorporated into the contractor’s baseline initiative.

The benefits of this project were many. The cadets glimpsed a real software and hardware development effort for the first time. For their design project, they were able to work on a real Army problem that was both intellectually and technically stimulating. Since the PM provided tactical radios, two Advanced Field Artillery Tactical Data System workstations, an HTU, and other equipment, the cadets became adept at working with fielded Army Command Control, Communications, Computers and Intelligence (C4I) equipment. The faculty mentors were also motivated, both professionally and personally, to work on a real Army project vs. a purely academic exercise.

The project also provided some independent validation and corroboration of the technology choices made by the PM’s contractor such as Java 2 Micro Edition, personal Java, Bluetooth wireless connectivity, and the need for a personal digital assistant to control the Bluetooth connection near the radio. Finally, the cadets explored the potential for using eXtensible Markup Language in lieu of the current Variable Message Format-based information transfer methodology – a topic of current interest among the Defense C4I community.

As a credit to the partnership between USMA and PM FATDS, cadets built and demonstrated on the workbench at West Point, the first proof-of-concept implementation of the idea. The experience gained under the auspices of this project will also serve as an “honest broker” knowledge base for subsequent assessment of the contractor’s final Pocket-sized Forward Entry Device work product.

Unified Data Bases for Joint Targeting

Each year, West Point conducts a summer Academic Individual Advanced De-

velopment Program, which provides cadets with an opportunity to apply knowledge they've gained in the classroom. USMA and PM FATDS are jointly sponsoring a project entitled "Unified Databases for Joint Targeting"

All Services need the capability to 1) process targeting information expeditiously from multi-echelon data sources; and 2) subsequently execute fire support and/or close air support missions in a synchronized, integrated manner at the national, strategic, operational, and tactical levels. The Joint Targeting Toolbox is focused on providing a Force-level targeting capability with intelligence support for target systems analysis, situation assessment, target development and selection, target nomination, "weaponneering," and the battle damage assessment necessary to conduct joint and combined theater campaign operations.

The Joint Targeting Toolbox is intended to run as a co-resident-targeting module on the Services' primary Battle Command systems such as the Army Battle Command System and the Theater Core Battle Management System. Current Service Battle Command systems use data bases that differ in both construct and content. The Theater Core Battle Management System uses the Modernized Integrated Data Base, while the Army Battle Command System uses the Joint Common Data Base. Objectively, the Joint Targeting Toolbox should be designed to execute Service Battle Command systems that fully support the required fire support and/or close air support doctrine.

The summer academic project consists of three phases:

- Joint Targeting Toolbox Assessment
- Joint Common Data Base/Modernized Integrated Data Base Comparison
- Findings

Assessment Phase

During the Joint Targeting Toolbox Assessment Phase, the first cadet would review the Target Weaponneering functions within the Joint Targeting Toolbox as

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well as the critical data elements, and also identify the core set of mechanisms used to process target information. Special attention will be directed at expected data structures and fields required by the Joint Targeting Toolbox module.

Comparison Phase

The Comparison phase will identify common and missing data base elements and functions in the Joint Common Data Base and Modernized Integrated Data Base required to execute the Joint Targeting Toolbox Weaponneering functions.

Findings Phase

The Findings Phase will review the essential disconnects found in the Joint Common Data Base and Modernized Integrated Data Base that prohibit tactical targeting by the Joint Targeting Toolbox.

Concluding the Project

The cadets will conclude the project by clearly identifying and documenting the required data base subset that must be supported by both the Joint Common Data Base and/or Modernized Integrated Data Base for true joint targeting. PM FATDS intends to use the results of this summer academic project to initiate changes and modifications to the Joint Common Data Base or Modernized In-

tegrated Data Base. This will facilitate integration of the Joint Targeting Toolbox into the Advanced Field Artillery Tactical Data System and the Army Battle Command System.

A Nurtured Collaboration

The partnership between USMA and PM FATDS has been fruitful and advantageous to the mission objectives of both organizations. The cross-fertilization of intellectual prowess from the academic and acquisition communities has positively impacted the knowledge and experience base of the nation's future commanders, while similarly contributing to materiel development solutions for the Army's Transitioning and Objective Forces. This nurtured collaboration continues to provide a grass-roots model for success as today's Army evolves to meet the challenges of technology-driven change and the need for a multi-disciplined cadre of military leaders.

The demonstrated grass-roots model is a triple win for the Army:

- First, the faculty at West Point continues to work on real Army problems while teaching cadets.
- Second, the West Point cadets continue to work on Army programs that challenge them intellectually and also provide a first, in-depth view of Army systems.
- Finally, the PM FATDS gains access to low-cost, unbiased technical expertise that can objectively examine complex problems or be used to "sanity check" the recommendations of contractors.

The results of this collaboration have indeed been beneficial, and we unreservedly recommend this model to others seeking insight into challenging, IT-based issues and market-driven materiel solutions.

Editor's Note: The authors welcome questions or comments on this article. Contact **Manz** at paul.manz@c3smail.monmouth.army.mil; **Surdu** at john-surdu@usma.edu; **James** at john-james@usma.edu; and **Ragsdale** at dan-ragsdale@usma.edu.



Deployable “Digital Campus” Matures, Ready to Go

JIM CALDWELL

FORT MONROE, Va. — A new digital “Deployed Training Campus” can be shipped to any place in the world, set up in about three hours by two people, and ready to help train soldiers via the Internet and a two-way video and voice system.

“This prototype supports the Army’s concept of training soldiers in the environment they’re going to fight in,” said Chief Warrant Officer Charlie Bos, Chief of the Deployed Training Branch within Training and Doctrine Command’s Deputy Chief of Staff for Training (DCST) organization.

“They can be trained on their critical tasks and remain proficient.”

Older versions of the training system, which were built basically using equipment in the Army inventory, are being used in the Sinai, Kosovo, Bosnia, and Germany. The new system was built for the Army for about \$400,000.

Bos said that the figure includes research and development.

“These systems will hopefully cost less than \$200,000 by the end of the next iteration. And they’ll be twice as powerful and half the size,” he said.

The systems that are currently in Europe have to be carried on a flatbed truck. The new one fits into 19 specially designed boxes and goes on a small ramp C-130 loading pallet. Bos wants the package to eventually fit into a Humvee.

“The original plan was to give one or two units to a division,” he said. “I think the ultimate place for this is at brigade headquarters. When the brigade deploys, once they get settled into their mission, they need to go right into training, and this is the vehicle to provide it.”

Bos is also assigned to Fort Lewis, Wash., in the Training and Doctrine Command (TRADOC) Interim Brigade Combat Team Coordination Cell. He oversees development of the digital training campus.

The deployed campus consists of 17 high-end laptop computers; multiplex equipment that can handle video, voice, fax, [and] telephones; and a deployable antenna, all with test equipment.

The video teletraining package contains a pan, tilt, zoom, and automatic focus video camera; two 42-inch plasma flat panel displays; and eight push-to-talk microphones.

After the antenna is set up and plugged into the system, it is digitally ordered to align itself with the correct satellite.

Power is provided by the deployed unit.

“We stopped using a generator with the last iteration,” Bos said. “We were spending big bucks on a diesel generator that weighs a ton, and we never used it. We just didn’t want that log trail.”

Bos recently brought the campus to Fort Monroe and set it up in a tent in Continental Park across the street from the TRADOC commander’s house. Throughout the day he gave briefings as officers, enlisted soldiers, and civilians wandered in. Those involved with training development and technologies stayed to listen.

The tent, he explained, was not part of the deployed campus; it was just one he brought with him to serve as a classroom. The ideal place to house the equipment is wherever the deployed unit is housed, but a tent works just fine.

“If, for some reason, you wanted to use it outdoors in the heat or the cold, the equipment can take it,” Bos said.

Classes are scheduled through the Network Control Center (NCC) at Fort Eustis, Va. The NCC handles communications and schedules classes for all the deployed training sites.

TRADOC leadership was so impressed they want Bos to demonstrate the system to Army leadership. Although the full schedule hasn’t been set, Bos will take the system to the Pentagon and the TRADOC Commanders’ Conference in August.

The sergeant major for DCST, Sgt. Maj. Danny Hubbard, [showed] the system to attendees at the Armor Conference at Fort Knox, Ky., May 21.

Forerunners of the Deployable Training Campus have been in operation in the Sinai, Kosovo, Bosnia, Macedonia, and Germany, some for as long as six years.

The system at Vilseck, Germany, has saved U.S. Army Europe about \$7 million to train soldiers in the Battle Staff Noncommissioned Officer Course (BSNCOC). Three times a year, instruction is beamed via satellite from the Sergeants Major Academy, Fort Bliss, Texas, to soldiers who need the training. Although soldiers from installations around Europe travel to Vilseck for the training, the cost is much less than sending them to the United States for the course.

Soldiers from deployed areas such as Bosnia can be included in the training without having to leave their operational areas.

First priority for the Deployed Training Campus is military training, according to Bos. In addition to BSNCOC, such training as Defense Language Institute refresher foreign language courses have been beamed to overseas troops by satellite. A [hazardous] materials handling course was also broadcast for the first time to troops in Germany and Kosovo in March 2000.

"The pilot program was so successful that a second course was conducted in June 2000," Bos said. "That one linked Bosnia, Kosovo, Vilseck, North and South Camps in the Sinai, and Alaska.

"This was the first time that soldiers on three continents were taught at the same time."

Next on the priority list is individual professional military development, followed by civilian education. Live classes are beamed from institutes such as City Colleges of Chicago and the University of Maryland after duty hours to deployed troops.

Morale and welfare is the third priority. When not in use, the campus can be used for soldiers to call their families if the calls are local to Fort Eustis or can be patched in through the Defense [Switched] Network. Computers are available to get on the Internet to correspond with friends and families. Deployed units can also schedule video visits with families through videoteleconference centers on installations in the United States or overseas.

"The satellite stream is a 24/7 operation and costs not one dime more to keep it running, so there's no extra charge to let soldiers use it for personal communications.

"Once you've seen a long line of soldiers waiting to just get inside a tent to get their chance at the Internet, you know that's an important benefit for them," Bos said.

"The staff at the Network Control Center spend a lot of late nights connecting video calls for deployed soldiers. To say that Walt Breckons and his people at

the NCC are supporters of our deployed troops would be a mild understatement."

A recent upgrade now allows NCC staffers to connect with all National Guard and Army Reserve sites around the country.

The ability to run simulations also makes the campus ideal for a commander to run combat training with his staff.

"The campus would serve as a great TOC [tactical operations center], but we hope commanders won't use it for that purpose, and use it for its intended purpose," Bos said.

The system that Bos demonstrates is the first of three prototypes, with two others undergoing initial acceptance tests at Fort Eustis. When the other two are certified, the first system will be put in use at Camp Bonnefield in Bosnia. The next will replace the equipment in Kosovo.

"That's an old system," he said. "I'm just getting tired of fixing it. You have to take a wrench out to adjust the antenna to get the satellite online."

While the first deployed training systems were doing the job they were designed for, it was evident that they had to become more user friendly. To gain more command acceptance, they had to be deployable, too.

"We actually wrote the white paper for this package about a year and a month ago in a restaurant in Cairo on the way back from the Sinai," he said. "It's become a reality in just that short a time."

"We" includes Bos, Sgt. Maj. Andy Neal, NCOIC of the Deployed Training Branch, and Dr. Carl Wyatt, former branch chief. Wyatt now works for Forces Command, developing joint training policies.

"This is a combat multiplier for a deployed commander," Wyatt said. "His soldiers can be refreshed in skills and knowledge for METL [mission essential task list] skills, or receive training for the specific operation."

"In all, the deployed training program within TRADOC fills two primary tools within the transforming Army," Bos said. "First it defines what the Block 5 TADLP [The Army Distance Learning Program] will look like when it's finally deployed.

"More importantly, it helps soldiers and commanders alike."

Editor's Note: Caldwell is a journalist with the Training and Doctrine Command, Fort Monroe, Va. This information is in the public domain at <http://dtic.mil/armylink/news>.

THAAD User Interface Design

Relying on Adherence to Standards, Soldier Involvement

MAJ. DAN WILEY, USA • DR. CHRIS B. GROUNDS

Developing a user interface for any system presents challenges; most notably, an interface must be usable by soldiers across a broad spectrum of experience levels and performance differences. These challenges can be addressed by adhering to the Department of Defense (DoD)-mandated Human-Computer Interface (HCI) standards and involving the user frequently during the interface design process.

The Operator System Interface (OSI) Integrated Product Team (IPT) is one of several IPTs on the Theater High Altitude Area Defense (THAAD) Project. This team has been developing a User Interface that maximizes functional capability while ensuring soldier performance and accuracy by using a tried and true screen design process. Although much work remains to be done, the process is sound and results to date have been extraordinary. A key aspect of the THAAD process is the involvement of soldiers in the design. This article provides a brief overview as well as benefits to the THAAD program from using this process.

THAAD Background

On June 23, 2000, Dr. Jacques Gansler, former Under Secretary of Defense for Acquisition, Technology and Logistics, formally approved THAAD's entry into the Engineering, Manufacturing, and Development (EMD) phase. The THAAD mission is to protect multiple, widely dis-

persed assets from short-to-medium-range Tactical Ballistic Missiles. The THAAD system consists of five segments: Battle Management Command, Control and Communications (BM/C3I); Launcher; Radar; Missile Round; and Peculiar Support Equipment. The BM/C3I Segment acts as the integrator to coordinate the segments into a weapon system.

BM/C3I software development occurs within six functional areas: Operations Management, Battle Management, Communications Management, System Support, Embedded Training, and OSI. The OSI acts as the conduit between the command and control operator and the BM/C3I system.

User Interface Design Guidance

Scientifically validated guidance acts as the first input into the design process. This guidance comes in the form of performance and usability-based standards such as MIL-STD-1472, Institute of Electrical & Electronics Engineers Standards on Graphic User Interface Design, Open Software Foundation Motif Style Guides, and Apple/Microsoft standards.

Principal documents governing user interface design include:

- *Department of Defense Joint Technical Architecture* (April 2001)
- *Joint Technical Architecture – Army* (May, 2000)
- *Department of Defense Technical Architecture Framework for Information Man-*

Active Duty Artillery soldiers participate in the February 2001 User Screen Design Experiment to validate design of the BM/C3I software system, Fort Bliss, Texas.



agement (TAFIM), Volume 8, "DoD Human-Computer Interface (HCI) Style Guide" (June 1994)

- *Defense Information Infrastructure (DII) Common Operating Environment User Interface Specifications* (October 1999)

Wiley is an assistant product manager in the THAAD Program Office and the government representative on the THAAD BM/C3I OSI IPT. *Grounds* is the lead Human Factors Engineer for the THAAD BM/C3I segment. He is responsible for OSI screen conceptualization and experimentation as well as ergonomic assessments of the THAAD BM/C3I shelters.

U.S. Army Weapon Systems Human-Computer Interface (WSHCI) Style Guide (December 1999).

The *TAFIM* guides the lowest levels of interaction; it provides guidance for color

text fields. Finally, the *WSHCI Style Guide* provides guidance for developing the interface for real-time situations such as the battlefield. It includes recommendations on what types of information to display at all times or how to ensure the soldier has access to information at critical points in a battle.

Human-Centered Design

A unique aspect and possibly the most important input into the design process for BM/C3I OSI development has been the focus on human-centered design. Early involvement of the soldier in the development effort has proved to be a quick and effective way to incorporate direct feedback into the design. Figure 1 outlines the typical design process of new screens or modification of existing screens.

Step 1 involves identification of problem areas in the OSI by rep-

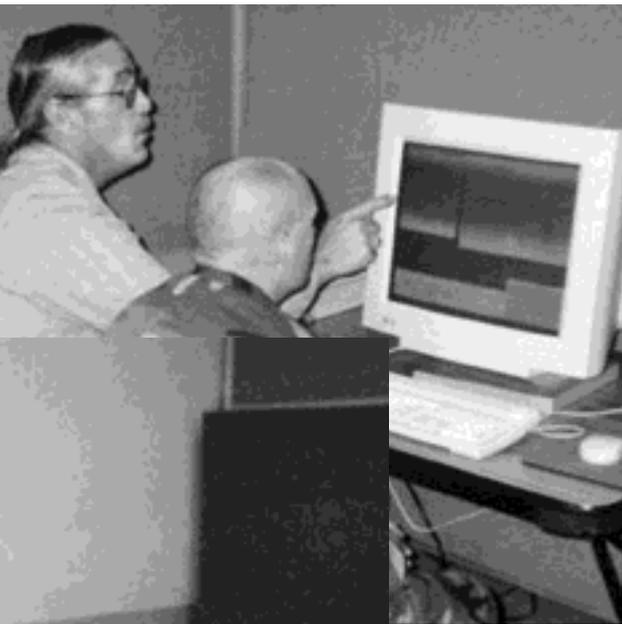
templates. If issues cannot be resolved or more than one solution is offered, then screen experimentation is necessary.

Step 2 involves design of candidate screens to resolve the screen issues identified in *Step 1*. First, the designer should conduct a task analysis of the screen. Identifying the purpose of the human interacting with the particular screen or set of screens is important to the task analysis effort. Cognitive task analysis tools such as Goals, Operators, Methods, and Selection Rules are useful for breaking the overall purpose of each task into sub-tasks and screen interaction methods that can support those sub-tasks. Once the tasks and sub-tasks are defined, screen interaction methods are proposed. Designs are constrained, however, to keeping candidate screens consistent with the rest of interface. Simply designing each window with good human factors' input without designing for consistency will defeat the benefit intended by the human factors' design.

Step 3 involves the development of the candidate screen prototypes proposed in *Step 2* (Figure 2). Rapid prototyping tools aid in quick development of functional prototypes for experimental testing. Many times, a baseline screen already exists. This screen serves as the baseline for testing along with one or two alternative screens.

Step 4 involves the experimental testing of the screens prototyped in *Step 3*. Experimental testing is superior to feedback-based assessments in that the performance of the operator is used as a factor in making decisions about the best real-time interface rather than relying strictly upon preferences and opinions of the operators. Usually, a full factorial experimental methodology is used for experimental purposes, i.e., all the soldiers being tested perform all the tasks on all the screens to be tested.

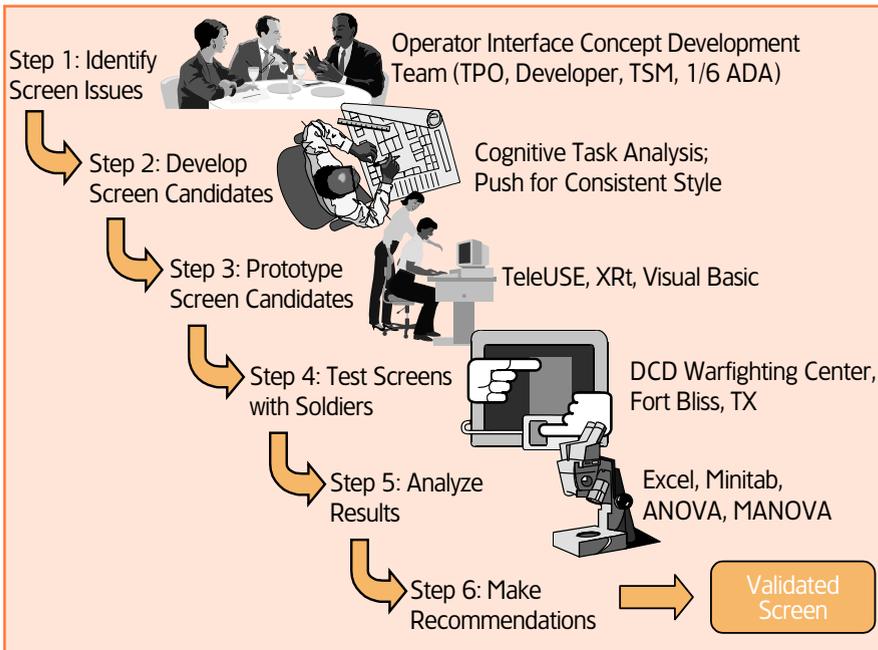
In some circumstances, depending upon the time it takes to test or the amount of preparation required to switch between test requirements (e.g., Mission Oriented



usage, font sizes, and principles of organizing information within the user interface. The *DII User Interface Specification* provides guidance for ensuring consistent use of screen "widgets" such as push buttons, pulldown menus, and

representatives from the THAAD Program Office, the soldiers, or the contractors. Problems may exist with prior screens, or there may be concerns about how a particular future function will be displayed to the user. Issues can often be resolved without experimentation by incorporating human factors design, previous experimental results, and screen

FIGURE 1. Human-Centered Screen Design Process



a recommendation will be made to replace the baseline screen with the alternative prototype.

- If the baseline screen has been statistically proven to be superior to the alternative prototype(s), then a recommendation will be made to keep the baseline screen.
- If no prototype has been statistically proven superior when compared to the other prototypes, then a recommendation will be made to keep the baseline screen. If this occurs, however, it may prove valuable not only to incorporate the best features of the alternative prototypes into improving the baseline, but also to incorporate any valid suggestions from the soldiers.

Benefits of the Process

THAAD has capitalized on human-centered design, particularly by incorporating experimental testing, resulting in several benefits. First, human-centered design is an effective method for incorporating the soldier voice (qualitative and quantitative) in the screen design

Protective Posture [MOPP] 0 vs. MOPP 4), soldiers will test using blocked procedures, i.e., half the soldiers test using alternative 1, then alternative 2; and the other half test using alternative 2, then alternative 1. Typically, 16-20 soldiers are required to collect sufficient data for statistical power purposes (i.e., ensuring that collected data are representative of the larger THAAD user population). Data are typically collected over a two-day period (8-10 soldiers per day).

Step 5 involves analysis of the time and accuracy data collected during the experimental testing. Data are reduced to soldier number, performance time (in seconds) for each particular trial, and number of errors committed during that trial.

Step 6 involves making recommendations based on the results of statistical analysis. The following situations can occur:

- If an alternative prototype screen has been statistically proven (95 percent confidence) to be superior to the baseline screen, then

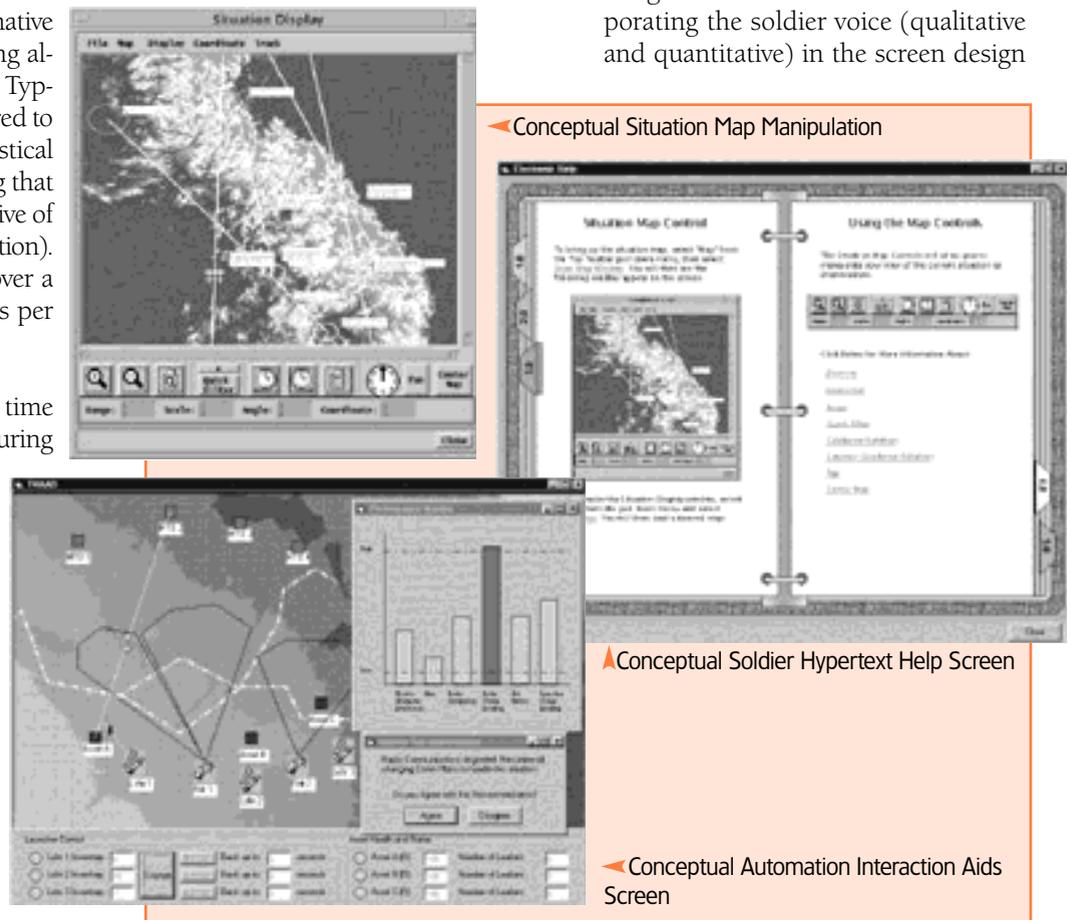


FIGURE 2. Screen Captures Typical of the BM/C3I Software

process. Second, it reduces the need for expensive design changes due to poor usability of the product by taking the human user into account in a timely manner during the design cycle. Third, it removes guesswork in defining the best screen for a particular real-time function by analyzing the soldier's performance in terms of decision time, action time, and accuracy for candidate screens. Finally, it increases the probability that THAAD soldiers will positively accept THAAD interface because their concerns, desires, and preferences are being taken into consideration from Day 1 of development. In particular, the usability testing that takes place in Step 4 has proven to be a valuable input into the BM/C3I design. Some results of this testing follow:

- Usability testing with THAAD soldiers allowed the number of separate windows in the Demonstration/Validation phase of the OSI to be reduced 75 percent for the EMD phase by incorporating tabs in screens. The soldiers' interaction performance was increased significantly, and they reported being more able to follow through a complex battle planning and evaluation process by using this interaction method.
- Usability testing with THAAD soldiers uncovered methods for effectively allowing them to monitor automated processes and make decisions regarding the nominal behavior of the THAAD system.
- Usability testing with THAAD soldiers showed that the complex process of

battle plan decision making could be more easily performed by allowing the soldier to use plan filters and situational map interaction.

Getting It Right the First Time

Designing a user interface for any system remains a challenge. Adhering to published guidelines while involving the user early and often in development greatly increases the chances of getting it right the first time. The current THAAD screen design process is a way to maximize functional capability while ensuring soldier performance and accuracy.

Editor's Note: Wiley welcomes questions or comments on this article. Contact him at wileyd@thaad.army.mil.

From the Defense Procurement Director *Deidre Lee*

Contractor Personnel in the Procurement of Information Technology Services

The Department of Defense, General Services Administration, and National Aeronautics and Space Administration have agreed to an interim rule amending the Federal Acquisition Regulation (FAR) to implement Section 813 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Pub. L. 106-398). The Act requires that the FAR be revised to address the use, in the procurement of information technology services, of requirements regarding the experience and education of contractor personnel.

This interim rule adds FAR 39.104 to prohibit the use of minimum experience or education requirements for contractor personnel in solicitations for the acquisition of information technology services, unless –

1. The contracting officer first determines that the needs of the agency cannot be met without such requirement; or
2. The needs of the agency require the use of a type of contract other than a performance-based contract.

Preference for Performance-Based Service Contracting

An interim change to the FAR explicitly states that performance-based contracting is the preferred method for ac-

quiring services. This change is one of a series of acquisition reform measures for adopting the best commercial practices to achieve greater savings and efficiencies. The Department of Defense is increasingly relying on the acquisition of services to meet its mission needs. As this trend is expected to continue, DoD needs to ensure that services are acquired with the most efficient practices and processes, and performance-based contracting fulfills this need.

Performance-based contracting is a method for acquiring services by defining a requirement in terms of performance objectives and placing the responsibility for how it is accomplished on the contractor. Section 821(a) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 required the government to establish the following order of precedence when acquiring services:

- A firm-fixed-price performance-based contract or task order.
- A performance-based contract or task order that is not firm-fixed price.
- A contract or task order that is not performance-based.

Editor's Note: The changes outlined in this notice are posted to the General Services Administration Web site at <http://www.arnet.gov/far/>.

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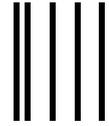
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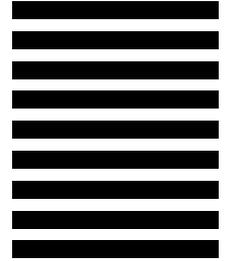
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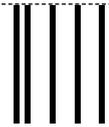
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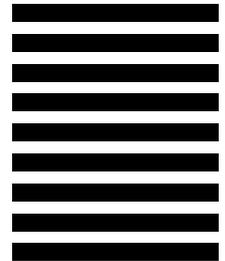
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THE JOURNAL OF THE DEFENSE ACQUISITION UNIVERSITY		
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<h2>Review</h2>		
<small>QUARTERLY</small>		
<small>VOL. 8</small>		<small>NO. 1</small>
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The DAU Press is actively seeking quality manuscripts on topics related to Defense acquisition. Topics include opinions, lessons-learned, tutorials, and empirical research.

References must be cited in your bibliography. Research must include a description of the model and the methodology used. The final version of your manuscript must conform to the *Publication Manual of the American Psychological Association* or the *Chicago Manual of Style*.

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Program Management Training Through Simulation

Looking Toward the Future

WILSON (CHIP) SUMMERS

Research on adult education verifies that adults learn best when they perceive that what they are learning is of value to their lives and work environment. Since adult learning is primarily self-motivated, with a strong emphasis on application, facilitators and instructors, at best, merely serve as guides in helping adults learn for themselves.

This suggests that the optimal learning environment involves some elements of simulating real-life experiences as closely as possible, and integrating “learning by doing” with theoretical concepts.

It is within this context that the Contract Management Department at the Defense Systems Management College (DSMC) uses two simulations in their Contracting Management curriculum, within the larger Advanced Program Management Course curriculum, to challenge students by doing: *Contract Management Simulation* and *Negotiation Simulation*. Both have proven to be valuable educational tools that can condense and concentrate for students, in a relatively short period of time, the contract management and negotiation skills that would probably take much longer to learn on the job or in another educational environment.

Contract Management Simulation

Contract Management Simulation focuses on the interpersonal dynamics that

Summers is currently the Contract Management Department Chairman, Faculty Division, DSMC. First assigned to DSMC in 1986, Summers previously served as a Contract Management Professor, Course Director, Department Chairman, and Associate Dean.



occur among key players in the program management arena such as Government Program Manager, Director of Contracts, Procuring Contracting Officer (PCO) Conversion Aircraft, PCO New Cargo Aircraft, Contractor's Program Manager, and Contractor's Contract Administrator. Key objectives of the simulation include:

- Identifying and analyzing the management issues involved in contract administration.
- Developing a strategy for a follow-on acquisition, taking into consideration the constraints, guidance, and current directives.
- Assessing one's ability to perform as a manager.
- Developing an understanding of the systematic nature of weapon system program acquisition.

In addition, the contract management simulation addresses such strategic and operational issues as negotiations, source selection, scheduling, prioritization of

...the optimal learning environment involves some elements of simulating real-life experiences as closely as possible, and integrating "learning by doing" with theoretical concepts.

issues, and legal implications of past and future actions. Organizational interrelationships, power, strategic planning, and decision-making practices and procedures are analyzed and explored. Since one of the major goals for this simulation is to focus on the substantive issues of program management/contracting, the following issues are included as part of the simulation: Reduced Funding, Ac-

celerated Initial Operating Capability, Source Selection, Competition, Contract Type, Data Rights, Late Delivery, Sub-contractor Problems, Constructive Change, Overage Change Order, Negotiation Stalemate, Freedom of Information Request, Latest Revised Estimate Variance, Scope of Work, Dispute, Defective Pricing, and a Disapproved Purchasing System.

After establishing roles and situations/issues, students receive information on previous events, correspondence and data on current issues, problem symptoms, and decision points through a series of memos and letters, depending on the role each student has assumed.

The role player must quickly analyze his or her information, communicate with other members in the simulation, prioritize, and develop strategies for resolution of the issues. Different dynamics emerge from each work group; their approach and resolution to the various dilemmas create an interesting discussion during the feedback session.

A class of 30 students, divided into five work groups, participates in the simulation – each doing the same simulation separately at different locations. The total time for the simulation is six hours – three hours of fast-paced performance followed by feedback to the entire group on their interpersonal performance, a discussion around the content issues in the case, and how the students attempted to resolve them.

Negotiation Simulation

The Negotiation Simulation exercise focuses on the entire process involved in negotiating a large engineering change proposal, from preparation through negotiation. Each negotiation is comprised of two teams: one government and one contractor, with six members on a team. Within a time frame of nine hours, each team works to complete the following key objectives of the simulation:

- Analyzing a contractor's proposal.
- Analyzing the issues involved in a proposal to prepare for negotiations (e.g.,



data management, reasonableness of cost, and schedule).

- Applying appropriate steps to prepare for negotiation.
- Developing the objectives, strategy, tactics, and alternatives necessary for a contract pre-negotiation position.

Although many organizations are using an "Alpha" Acquisition, which uses concurrent and integrated rather than serial processing in a sole-source environment (or "One-Pass" approach), the principles of negotiation are the same as those covering the traditional approach to negotiations. Either method requires understanding the contractor's basis of estimate, coming to cost/performance understandings, and agreeing on what is fair and reasonable. Successful negotiations rely on communication, justifying positions, and the ability to reach agreement by getting along with people.

Since the governing principles are the same for both approaches, we believe that students gain a fuller depth of understanding and consequently will have a wider variety of application options upon completion of this exercise. The knowledge, understanding, and experience gained from such a simulated negotiation are not only useful, but can prove vital when implementing either traditional or integrated government-contractor approaches to working issues with defense contractors.

Each team works with an Excel software program, which allows them to input the results of their cost analysis against the proposal, do sensitivity analyses, and establish the profit objective using an abbreviated weighted guidelines method.

As a part of the exercise, each team must also obtain its business clearance from

the faculty facilitator before entering into negotiation. Before the clearance is granted however, both teams must justify, from either the government or contractor perspective, their requested negotiation limits. At least three hours is set aside for the actual face-to-face negotiation, including facilitator feedback.

Experience, Experiment, Learn

Both of these simulations provide practical and realistic opportunities for DSMC students to experience, experiment, and learn in a risk-free environment before actually applying the processes and techniques discussed in this article in their day-to-day, on-the-job work environment.

Editor's Note: The author welcomes questions and comments on this article. Contact him at chip.summers@dau.mil.

Commercial Activities Panel

Last year, Congress authorized Comptroller General David Walker to create the *Commercial Activities Panel*. The panel is empowered to study the issues involved in moving government work from federal employees to federal contractors. Walker, who heads the General Accounting Office, announced the panel's members in April, and in May held an initial organizational meeting.

Walker's panel is a mix of federal, union, and private industry leaders and experts: **Frank A. Camm**, a RAND Senior Economist; **Mark Filteau**, President of Johnson Controls World Services; **Stephen Goldsmith**, a Bush campaign advisor and former Indianapolis mayor; **Bobby L. Harnage**, President of the American Federation of Government Employees; **Colleen M. Kelley**, President of the National Treasury Employees Union (NTEU); **Sean O'Keefe**, Office of Management and Budget (OMB) Deputy Director; **David Pryor**, a former Arkansas Senator; **Stan Soloway**, President of the Professional Services Council; and **Robert M. Tibias**, former NTEU President.

The panel also includes seats for the Secretary of Defense and the Director of the Office of Personnel Management (OPM). Secretary of Defense Donald H. Rumsfeld has designated the Department's Under Secretary of Defense for Acquisition, Technology and Logistics as his representative on the panel.

Congress asked the panel to examine two key pieces of legislation: the 1998 Federal Activities Inventory Reform Act, which requires agencies to list jobs that could be performed commercially; and OMB Circular A-76, which regulates outsourcing decisions. The panel could recommend changes in law or move to codify A-76 procedures.

Congress has directed the panel to turn in their final report by May 2002.

Susan Ludlow-MacMurray

The Defense Acquisition University has received word of the death of Susan Ludlow-MacMurray, Director, International Security Programs, Office of the Under Secretary of Defense (Policy), from an apparent heart attack on Thursday, April 26, 2001.

A longtime friend and supporter of DAU-DSMC, Susan had lectured in almost all offerings of the Advanced International Management Workshop since the first offering in 1989. In June 1999, she delivered a presentation on "Globalization and International Security" during the 11th Annual International Acquisition/Procurement Seminar – Atlantic, hosted by DSMC at Fort Belvoir, Va. – the largest international event in the history of DSMC.

She is survived by her husband, Michael M. MacMurray; two sisters, Jeanne and Ellen Ludlow; and brother, Mark Ludlow.





Army Presents Acquisition Manager Awards

WASHINGTON (Army News Service, Aug. 8, 2001) — The product manager of the Patriot Advanced Capability-3 missile and the project manager of the Theater High Altitude Area Defense system (THAAD) were recognized as managers of the year Aug. 7 under the Secretary of the Army Acquisition Awards Program.

[The] Commander of the Acquisition Center at Fort Irwin, Calif., and the Commander of Defense Contract Management (DCM), San Francisco, Calif., also received Acquisition Commander of the Year awards at the ceremony in Atlanta, Ga.

Lt. Gen. Paul J. Kern presented the awards at the 2001 Annual Army Acquisition Workshop and Executive Session, [held] at the Omni Hotel (CNN Center) in Atlanta. Kern is the Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology and the Director, Acquisition Career Management Office.

“Warfighting commanders count on the acquisition community to purchase essential supplies and services. Soldiers depend on us for the equipment necessary to deploy rapidly, win decisively, and come home safely. These awards represent outstanding achievements and teamwork within our organization,” Kern said.

The Secretary of the Army [Acquisition] Awards for Program, Project, and Product Manager of the Year and Acquisition Commander of the Year winners are:

PROJECT MANAGER OF THE YEAR

Col. Patrick J. O'Reilly, project manager for THAAD, implemented a \$10 billion Life Cycle Cost Reduction Initiative and won three of four Department of Defense Value Engineering Awards in fiscal 2000.

PRODUCT MANAGER OF THE YEAR

Lt. Col. Edward L. Mullin, product manager for the Patriot Advanced Capability-3 Missile Program, reduced average unit production cost by 40 percent and achieved a 100 percent success rate during developmental testing.

ACQUISITION COMMANDER OF THE YEAR-COLONEL LEVEL

Col. William N. Phillips, Commander, DCM, San Francisco, implemented an improvement plan for contract closeouts, decreasing backlogs by 35 percent. He also developed a plan for relocation with an expected savings of \$10.7 million. DCM San Francisco is now used as a benchmark for other commands to assess their performance.

ACQUISITION COMMANDER OF THE YEAR-LIEUTENANT COLONEL LEVEL

Lt. Col. George P. Slagle, Commander, National Training Center, Acquisition Center, implemented a Cost-Plus-Award Fee program with incentives, ensuring contractors stay within the original contract cost.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news>.

NDIA National Summit on Acquisition, Research, Test and Evaluation

“It’s Time to Revitalize Test and Evaluation in the Department of Defense”

COLLIE J. JOHNSON

The mood at the National Defense Industrial Association’s recent Acquisition, Research, Test and Evaluation National Summit could best be described as “jubilant.” Many of those attending the three-day summit in Long Beach, Calif., had just heard the good news. For the first time in many years, the President had put modernization of test and evaluation right up front with his highest budget priorities.

“If you walked past my house recently, you would have heard a lot of crashing noises inside. That was me trying to do handsprings when the President’s initial budget first came out. I wasn’t sure I could believe my eyes,” said Philip Coyle, former Director, Operational Test and Evaluation, who delivered the summit keynote address.

After years of declining budgets for Research, Development, Test and Evaluation (RDT&E), the Bush Administration was advocating \$2.6 billion for Defense RDT&E. Specifically:

“Leap-ahead technologies for new weapons and intelligence systems improvements for the laboratory and test range infrastructure technologies aimed at reducing the cost of weapons and intelligence systems and funding to continue research, development, and testing of the missile defense program.”

Mayor’s Welcome

The budget increase announced, the summit continued on an upbeat note as conference organizers brought out Bev-



Philip Coyle (center), former Director of Operational Test and Evaluation, OSD, receives the Walter W. Hollis Award for Lifetime Achievement in Defense Test and Evaluation. Coyle, who is the first recipient of the award, was recognized as a leader in the Defense Test and Evaluation community. Pictured from left: Walter W. “Walt” Hollis, Deputy Under Secretary of the Army for Operations Research; Coyle; wife, Dr. Martha Krebs.

erly O’Neill, Mayor of the City of Long Beach, who delivered a warm welcome. To paraphrase her message to DoD, “We miss you, but we’re surviving.”

Prior to 1995, she explained, Long Beach was, in essence, a Navy town for 60 years. With defense downsizing, Long Beach lost the entire Navy presence, which included many members of the acquisition, procurement, and test and evaluation government workforce. According to O’Neill, “We lost 50,000 jobs

in this area, our image, and our tax base, and so we’ve had to drastically change direction for our city.”

The Long Beach area is changing dramatically, capitalizing on advanced technology, international trade, and tourism. “The Port of Long Beach is the third largest port complex in the world, so we have international trade that is growing daily, and increased technological presence, which offers potential jobs in the future.”

She urged Northrop Grumman and Boeing, two major industries located in Long

Johnson is managing editor, Program Manager Magazine, DAU Press, Fort Belvoir, Va.

Beverly O'Neill (second from left), Mayor of the City of Long Beach, Calif., is greeted by senior conference participants. From left: James O'Bryon, Deputy Director, Operational Test and Evaluation/Live Fire Testing, OSD; O'Neill; Philip Coyle, former Director, Operational Test and Evaluation, OSD; and retired Army Col. John Stoddart, Vice President, Oshkosh Truck, and Chairman, of the Industrial Committee on Operational Test and Evaluation.



Paul Bracken (left) autographs his book for Lee Frame, Acting Director, Operational Test and Evaluation, OSD. Bracken, who also served as the Honors Banquet speaker, is the author of *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age*.

Beach, to present their concerns to DoD at the summit. “I hope that the recommendations and issues you address at this summit are brought forward to DoD and the Congress.

“We have had a long history of contributing to the defense of our nation,” she concluded, “and bringing national events of the stature of the Acquisition Summit to Long Beach is a special honor for the city.”

Keynote Speaker

Prior to departing DoD in January 2001, Philip Coyle was the Department's longest serving Director of Operational Test and Evaluation. As keynote speaker, he was welcomed as a “patriarch” of test and evaluation, and the man who most influenced the fiscal 2002 budget increase for research, development, testing, and test range infrastructure technologies.

The Conscience of Acquisition

“Testing is the conscience of acquisition,” said Coyle. Former Secretary of Defense William Perry first spoke those words, and while Coyle loved the phrase when he first heard it, he has come to wish it weren't so true. “One's conscience is supposed to keep you on the straight and narrow; one's conscience steps in just when you're trying to have some fun. And too often, testing is seen as the spoilsport, the bearer of bad news, or at least cold reality – and facts and figures that aren't as glowing as the program manager would have wished.”

To counter that perception, six years ago Perry articulated five themes for testing, one of which Coyle said cannot be overstated: *early involvement of testers in acquisition programs*. Yet early involvement is not as common as it should be. Coyle believes part of the reason is because the Services don't want to invest any more resources than required, even though the cost, in essence, would be trivial to most major defense acquisition programs.

Early Involvement and the Test Ranges

Early involvement, he added, is equally important to the test ranges. “The de-

velopmental test ranges are how you begin to understand the kind of testing program that you'll be doing ... At the highest levels the Services have to see the benefits of new investment in testing, and motivating the Services to add money to test and evaluation is not easy."

Citing the fiscal 2002 budget increase for test range infrastructure technologies, Coyle said, "I believe many of you can take credit for this. A few months ago, at my urging, the Office of Management and Budget visited some of your test ranges. The consistent story they heard from you was your growing need."

One of Coyle's last acts as the DOT&E was signing the DOT&E 2000 Annual Report. This past year's report, he said, for the first time included separate write-ups for each of the major ranges and test facilities, describing what makes each range or test center unique, their level of effort in fiscal 2000, and their infrastructure needs.

White Paper

The organizers of this year's summit, Coyle announced, would be taking major issues from the discussions and presentations – ranging from personnel and readiness to international cooperation and the role of the private

Retired Army Col. John Stoddart (center), Vice President, Oshkosh Truck Inc., and NDIA Chairman, Industrial Committee on Operational Test and Evaluation, is presented a color enlargement of the March–April 2001 cover of *Program Manager* Magazine. Stoddart wrote the feature story for that issue, "Contractors and Operational Testing," and is the first industry program manager to be featured on the cover. Pictured from left: Philip Coyle, former Director, Operational Test and Evaluation; Stoddart; and James O'Bryon, Deputy Director, Operational Test and Evaluation/Live Fire Testing.



Representatives from DAU-DSMC presented tutorials on "New Approaches for Acquisition Reform" at the Long Beach summit. Pictured from left: Dr. J. Robert Ainsley, Associate Provost, DAU; Dr. Robert Lightsey, Department Chair, Systems Engineering, DSMC; Robert J. Bohls Sr., Department Chair, Earned Value Management, DSMC; Charles B. Cochrane, Program Director, Systems Acquisition and Program Management Certification Courses, DAU, and Department Chair, Acquisition Policy, DSMC; and Dr. Jay Gould III, Professor, Test and Evaluation, DSMC.



sector – to prepare a white paper with recommendations that can be submitted to the new Bush Administration. Although not all-inclusive, the following issues represent matters of vital concern to the current test and evaluation workforce:

- No new hires at test ranges for the past seven years.
- Loss of virtually all soldiers in developmental testing.
- Loss of military officers with the right kinds of skills and experience.
- Need for leap-ahead technologies for new instrumentation – instrumentation that can actually save money once installed vs. older, more time-consuming equipment.
- No money (\$0) for basic science and technology development in test and evaluation.
- Increasing test demands, which translate to increasing costs for testing of leap-ahead technologies for new weapons and intelligence systems; newly armed aerovehicles that carry and fire weapons; new space systems; new information systems; and interoperability testing of theater weapons, which must be truly interoperable in all of their parts.
- How the test and evaluation community can help shorten the long cycle times and reduce the costs for new weapons.
- How the test and evaluation community can help acquisition programs succeed the first time they go into Initial Operational Test and Evaluation, not the second or third.
- How DoD can attract excellent, younger workers to join the ranks of the test and evaluation workforce.
- How the test and evaluation community can test the interoperability of DoD's coalition partners, when the U.S. test ranges aren't interoperable with one another.
- How DoD can test interoperability with NATO and with the new European Rapid Reaction Force.
- Sustainment and reliability problems emerging during developmental and operational testing, with operating and maintenance costs that far outweigh

From Congressman Stephen Horn (R-Calif.)

As Chairman of the House Subcommittee on Government Efficiency, I'm very pleased that Conference Chairman Jim O'Bryon asked me to participate in this Summit. I encourage you to explore the many important national defense issues of the conference agenda. As a strong supporter of our military, I am encouraged by President Bush's commitment to defense priorities. As we know, we are facing new threats in a changing world that require new, innovative responses. In recent years, our defense budget has come under increasing strain as we attempt to address the many competing challenges facing our military and the roles our service members are asked to perform. President Bush, Secretary of State Powell, Secretary of Defense Rumsfeld and other staff members are beginning the hard work needed to develop a coherent and viable response. That's why this summit is so timely.

The agenda for this summit is filled with notable leaders and visionaries and the very people responsible for making the policy decisions for the new administration. That makes it an excellent group to put together a white paper with recommendations that can be submitted to President Bush and the new administration. I know you will take this task very seriously. Your agenda addresses subjects ranging from National Missile Defense and emerging threats to the state of readiness, international cooperation, and the role of the private sector. The important policy issues are here in front of you for discussion. This is your opportunity to influence the policies that serve the defense of our nation and the values we hold dear. I'm asking Jim O'Bryon as the conference chairman to submit the results of this conference to those of us who are in Congress and to President Bush. You're the people that the leaders in the Executive Branch and the Congress need to hear from at this critical time. I applaud the work that the members of the National Defense Industrial Association are doing to address those areas of concern, and I congratulate your expertise, your patriotism, and the good work that you do. I look forward to seeing the product of this work.

the initial costs of acquiring the systems.

- Lack of a "real" plan for revitalization or testing more efficiently in areas such as aircraft or range instrumentation.
- Within the law, contractors' access to operational test events, the data, and results.
- Pressure to reduce the number of troops and samples that are involved in operational test and evaluation.
- Whether DoD should be performing test and evaluation on commercial major infrastructure components such as power grids and computer systems as part of its overall strategy.
- Incentives for testers and evaluators who travel and put in periods of duty at other sites – often of several months' duration.
- Possible loss of test ranges or centers in another round of BRAC [Base Realignment and Closure] initiatives,

which the Bush Administration is favoring.

Now is the Time

"If it ain't broke, don't fix it has been our motto," said Coyle. "We've used that excuse to avoid change that clearly would have reduced our costs and improved our capabilities. We've also used that motto to justify getting by without new investment."

Now is the opportunity, Coyle said, for the test and evaluation community to take credit for the things that will define the future, to advocate the changes that will work, to take some risks, and to try some things that may not work.

"Ladies and gentlemen we have exhausted all the other alternatives. It's time to revitalize test and evaluation in the Department of Defense."

National Defense Industrial Association (NDIA) Tester of the Year Awards 2000



**Department of Defense Military Tester of the Year
Cmdr. Michael B. Stanton, USN**

From left: Navy Rear Adm. Robert E. Besal, Commander, Operational Test and Evaluation Force; Stanton; Lee Frame, Acting Director, Operational Test and Evaluation, OSD; and retired Army Maj. Gen. Paul L. Greenberg, VP of Operations, NDIA.



**Department of Defense Civilian Tester of the Year
William A. Colson**

From left: James O'Bryon, Deputy Director, Operational Test and Evaluation/Live Fire Testing, OSD; Colson; Frame; and Greenberg.



**U.S. Army Civilian Tester of the Year
Glenn R. McPherson**

From left: O'Bryon; Streilein; McPherson; and Greenberg.



**U.S. Army Contractor Tester of the Year
Charles L. Ramsdell**

From left: O'Bryon; Streilein; Ramsdell; and Greenberg.



**U.S. Navy/Marine Corps Contractor Tester of the Year
Robert A. Rosado**

From left: O'Bryon; Rosado; Besal; and Greenberg.



**U.S. Air Force Military Tester of the Year
Lt. Col. David M. Nelson, USAF**

From left: O'Bryon; Nelson; Welch; and Greenberg.

The National Defense Industrial Association (NDIA) Tester of the Year Awards 2000 recognize the Outstanding Testers of the Year from the Army, Navy/Marine Corps, Air Force, and Office of the Sec-

retary of Defense (OSD). This year's winners were honored at the National Summit on U.S. Defense Policy: Acquisition, Research, Test and Evaluation, held in Long Beach, Calif., March 26 – March 30, 2001.



**Department of Defense Contractor Tester of the Year
Dr. Anil Joglekar**

From left: Frame; Joglekar; retired Air Force Gen. Larry Welch, President, Institute for Defense Analyses; and Greenberg.



**U.S. Army Military Tester of the Year
Maj. John M. Eggert, USA**

From left: O'Bryon; Eggert; James Streilein, Army Test and Evaluation Command; and Greenberg.



**U.S. Navy/Marine Corps Military Tester of the Year
Lt. Cmdr. Michael J. Dodick, USN**

From left: O'Bryon; Dodick; Besal; and Greenberg.



**U.S. Navy/Marine Corps Civilian Tester of the Year
Luis A. Cortes**

From left: O'Bryon; Cortes; Besal; and Greenberg.



**U.S. Air Force Civilian Tester of the Year
James P. Keith**

From left: O'Bryon; Keith; Welch; and Greenberg.



**U.S. Air Force Contractor Tester of the Year
Charles S. Triska**

From left: O'Bryon; Triska; Welch; and Greenberg.



Defense Standardization Program Presents Awards

During a ceremony at the Pentagon today, one individual and six teams received awards from the Defense Standardization Program (DSP) for outstanding contributions to the Department of Defense last year. Since 1986, DSP has recognized significant achievements in quality, reliability, readiness, cost reduction, and interoperability through standardization.

The DSP mission is to identify, influence, develop, manage, and provide access to standardization processes, products, and services for warfighters and the acquisition and logistics communities. In addition, the program promotes interoperability, and assists in reducing total ownership cost and in sustaining readiness.

FOLLOWING ARE DEFENSE STANDARDIZATION PROGRAM AWARD RECIPIENTS FOR THE YEAR 2000:

Army – Herbert W. Egbert, U.S. Army Developmental Test Command, Directorate for Test and Technology, Technology Management Division, Aberdeen Proving Ground, Md. Egbert was recognized for his leadership in NATO and the DSP for environmental safety of munitions and explosives, and for his publications on environmental conditions and tests.

Navy – The Air Combat Electronics Team, Naval Air Systems Command, Air Combat Electronics, Patuxent River, Md. This team successfully developed, fielded, and supported a common digital communications system on more than 40 different types of aircraft, surface ships, and ground-based platforms.

Navy – The Ground Proximity Warning System Integrated Product Team, Naval Air Systems Command, Air Combat Electronics Program Office, Patuxent River, Md. This team was lauded for using standard commercial off-the-shelf equipment, nondevelopmental items, and standard re-usable embedded software in a wide variety of naval aircraft.

Navy – The Common Aviation Support Equipment, Communications/Navigation Integrated Product Team, Naval Air Systems Command, Patuxent River, Md. The team applied unparalleled experience and skill in the procurement of the latest state-of-the-art testing equipment.

Navy – The Ring Laser Gyro Navigation System Team, Detection, Navigation and Processing Systems Program Office, Arlington, Va.; and the Intelligence, Surveillance, Reconnaissance and Navigation Division, Space War Systems Center, Charleston, Norfolk Detachment, Norfolk, Va. This group was responsible for the development of the Ring Laser Gyro Navigation System, the next generation inertial navigator for use with surface ships and submarines.

Defense Logistics Agency – The Specifications Development Team, Defense Supply Center, Philadelphia, Pa. This team succeeded in completing more than 3,000 standardization actions including development of 868 non-government standards to replace military counterpart documents, and the cancellation or inactivation of more than 2,000 military specifications.

Joint Navy and Air Force Project – The Joint Service Specification Guide Government Integration Team, Wright-Patterson Air Force Base, Ohio, and Naval Air Systems Command, Patuxent River, Md. The team developed a set of generic specification guides, written in performance terms, which provides a starting point for preparing a program specification for future acquisitions.

Additional information on the Defense Standardization Program, awardees, and their accomplishments may be found on the Web at <http://www.dsp.dla.mil>.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news>.

PRECISION STRIKE TECHNOLOGY SYMPOSIUM 2001

Technologies to Enable World-Wide Precision Engagement

*Kossiakoff Conference Center
JHU Applied Physics Lab
Laurel, Maryland
October 10-11, 2001*

This year more so than ever as a result of the Quadrennial Defense Review, the operational concepts involved in the joint precision engagement mission are at the forefront for military policy makers and strategists. This symposium brings to government and industry the unquestioned experts in the field with presentations on the latest in technology and precision strike systems applications related to Weapons, C4ISR, and Targeting. The classified session on the afternoon of Oct. 11 will focus on threat briefings by the DIA and CIA and select precision engagement systems.



*To register contact the Precision Strike Association at
www.precisionstrike.org or 301-475-6513*

Reducing Total Ownership Cost in DoD

Increasing Affordability of DoD Systems

JAY MANDELBAUM • SPIROS PALLAS

The total ownership cost problem has been well documented; as modernization is deferred, weapons systems age and costs for operations and support (O&S) increase. With relatively flat budgets, aggravated by excess infrastructure and inefficient overhead processes, more dollars for O&S means fewer dollars for modernization – leading to increasing costs and decreasing future readiness.

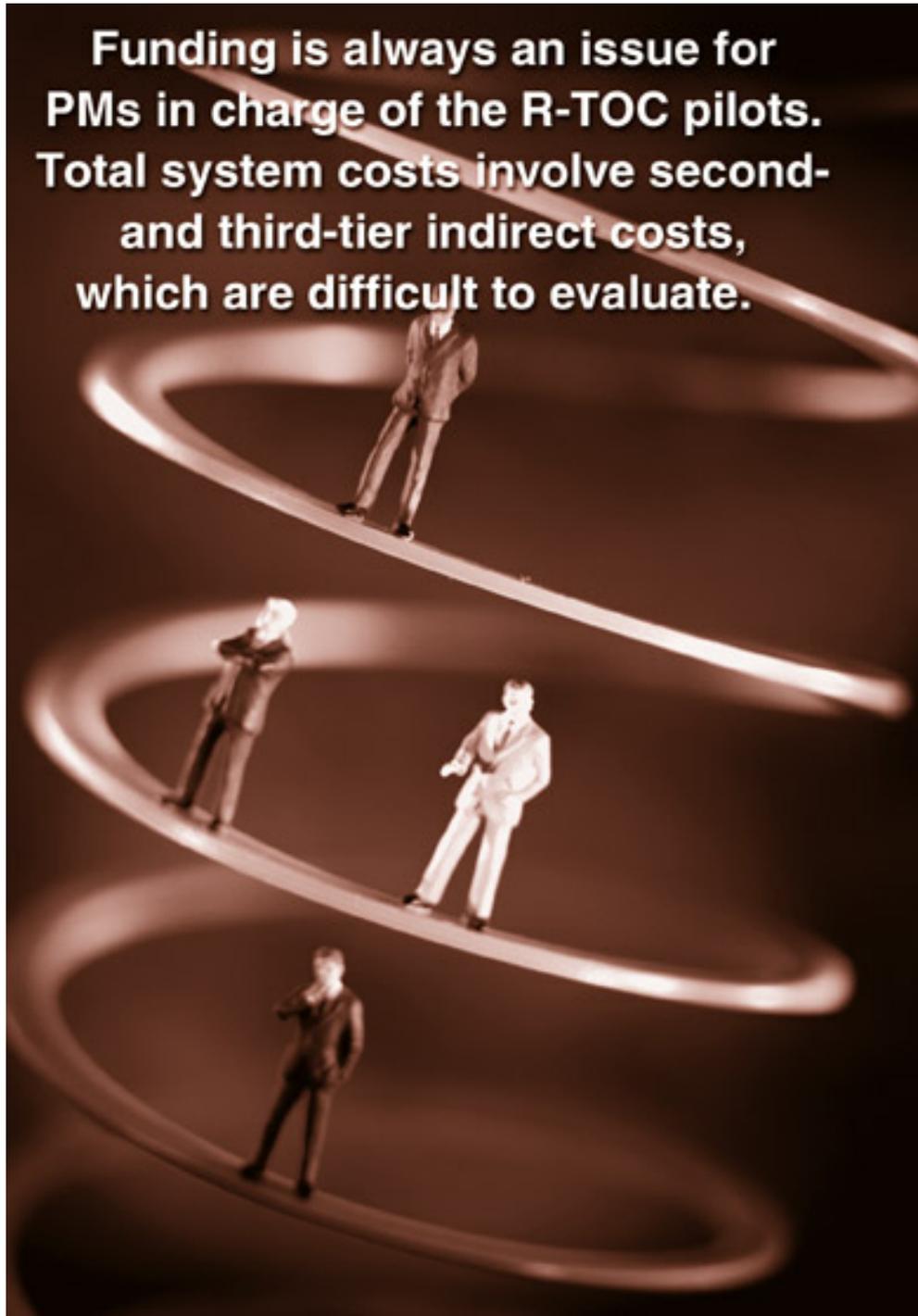
Conceptually, we have known how to attack this problem for some time:

- Continuous insertion of new technology to increase reliability, thereby decreasing the demand for support.
- Process change to improve the efficiency with which support is delivered, with the emphasis on competitively sourced product support.

The modernization process itself is also an important opportunity for the Reduction of Total Ownership Cost (R-TOC). The best time to reduce such costs is early in the acquisition process, either during initial acquisition or modification of the system. Conducting cost-performance trade-offs involving the user increases future readiness, not only through newer parts but also through designing less costly maintenance and operating requirements.

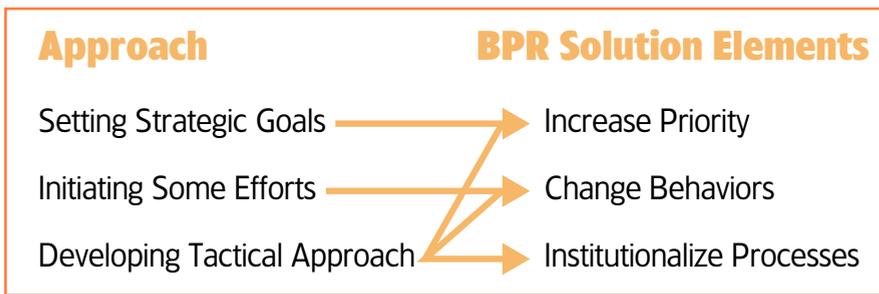
The Department of Defense (DoD) introduced these tenets several years ago as part of the “Cost As an Independent Variable” (CAIV) process. CAIV must become much more tightly integrated with the modification of legacy systems. A modification program can be a very effective opportunity for introducing

Funding is always an issue for PMs in charge of the R-TOC pilots. Total system costs involve second- and third-tier indirect costs, which are difficult to evaluate.



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FIGURE 1. Overall Approach



higher-reliability technology and components while increasing capability to meet military needs.

While these principles may be straightforward, implementation proved difficult – an imposing number of organizational barriers had to be overcome. The Department, therefore, approached this problem from a Business Process Reengineering (BPR) standpoint with the following key elements:

- **Increasing the visibility and priority of the problem.** Senior leadership made affordability a priority, not an afterthought or byproduct, with the Defense Systems Affordability Council (DSAC) and the R-TOC Pilot Programs as the key vehicles for senior leadership involvement.
- **Changing the behavior of organizations and individuals.** The behavior of people from all levels of the defense acquisition community changed. A continuous, purposeful search for, and implementation of R-TOC initiatives took place, including across organizational boundaries.
- **Institutionalizing R-TOC processes.** Finally, barriers were removed and R-TOC efforts became embedded in routine processes. Continuous process improvement resulted, enabled by ongoing initiatives, review of results, and course corrections, as appropriate.

The purpose of this article is threefold. It will demonstrate how specific problem-solving approaches taken by the Office of the Secretary of Defense (OSD) and the Services, within the context of the BPR elements, have resulted in changes to how DoD does business in today's acquisition environment, fol-

lowed by documentation of some of the initial aggregate results. Finally, it will identify some of the more difficult issues where more work remains.

The Approach

The Department's overall approach to the R-TOC problem combined three strategies: setting strategic goals and objectives; starting some efforts to build momentum early; and while efforts were underway, developing and implementing a more refined tactical plan. While this ordering makes sense logically, in reality its implementation contained a great deal of overlap. The overall approach supports the three BPR solution elements depicted in Figure 1.

Setting Strategic Goals, Objectives

To initiate the process of increasing visibility and priority of the R-TOC problem, the DSAC developed a strategic approach to affordability. In January 1999, DoD published *Into the 21st Century – A Strategy for Affordability*, which established three strategic goals for the acquisition, technology and logistics enterprise within DoD. The fiscal 2001-2005 *Defense Planning Guidance (DPG)* modified these goals somewhat by targeting a 20 percent reduction in O&S costs less fuel and military manpower in fiscal 2005 and omitting the intermediate-year targets. The fiscal 2002-2006 DPG excluded the fuel and military manpower exceptions. From a process perspective, however, the primary point is that the following three key goals are now in place to increase the visibility and priority of the issues.

- Field high-quality defense products quickly; support them responsively.
- Lower the total ownership cost of defense products.

- Reduce the overhead cost of the acquisition and logistics infrastructure.

R-TOC is a key strategy for achieving the latter two goals, with the following two associated objectives most influential in lowering total ownership cost and reducing overhead:

- For fielded systems, reduce the logistics support cost per weapon system per year compared to the fiscal 1997 baseline of \$82.5 billion by 7 percent by fiscal 2000; 10 percent by fiscal 2001; and a stretch target of 20 percent by fiscal 2005.
- Reduce the funding required by logistics and other infrastructure from the fiscal 1997 baseline of 64 percent of Total Obligation Authority (TOA) by 62 percent by fiscal 2000; 60 percent by fiscal 2001; and a stretch target of 53 percent by fiscal 2005.

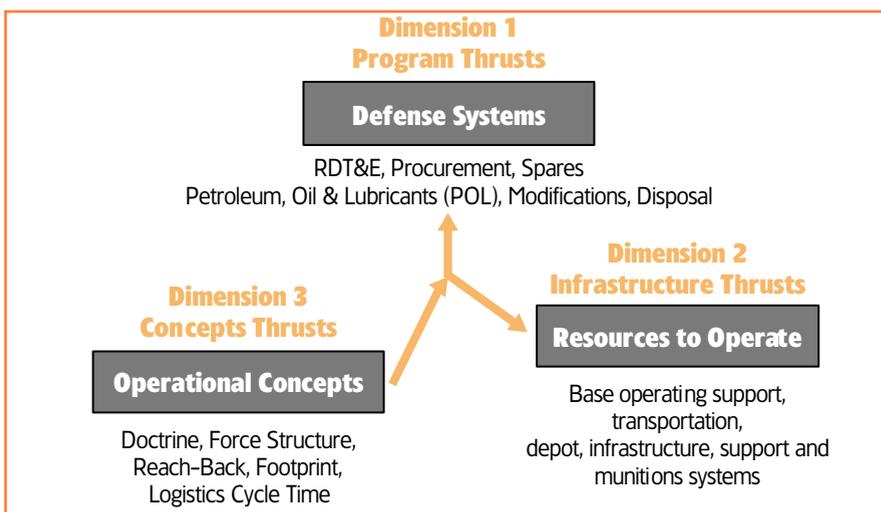
Building Momentum with Pilots

To begin the process of changing the behavior of organizations and individuals, the Services were directed in January 1998 to establish aggressive, time-phased TOC reduction goals for major programs. The DSAC decided in that same January 1998 meeting that the establishment of R-TOC goals should involve consideration of baseline costs and top cost drivers; incentives for government and industry; product and process reengineering; trade-off studies; special DSAC support (e.g., regulatory relief, waivers, funding flexibility, and authority); and other factors as they emerged.

Also during the meeting, the Service Acquisition Executives (SAEs) were asked to consider establishing TOC flagship or "pilot" programs. The pilot program concept, conceived as an instrument for innovative experimentation and change, emphasizes cross-feed and organizational learning.

Why a program rather than a functional orientation? Clearly, successful reduction of TOC would require cross-functional cooperation. Operating under that premise, who then would be in the best position to integrate across functions? Although the SAEs recognized from the

FIGURE 2. Dimensions of Air Force R-TOC Program



beginning that significant issues with funding and other visibility issues would likely surface no matter who took the lead, the PM had better horizontal visibility than anyone else. PMs have always cut across functions to do their jobs, and also have generally done so more on the basis of earned than formal authority.

At a December 1998 DSAC meeting, the SAEs consolidated the pilot program concept, where each Service agreed to provide 10 program names for the PM Oversight of Life Cycle Support 912c study, for pilot activities generated by the Product Support 912c study, and for the Section 816 study (10 of which would be reported to Congress). The DSAC would continue to track all 30 of the Service pilot programs as R-TOC programs.

The pilots were intentionally a mix of programs from all segments of the life cycle – developmental, in production, under modification, and fielded. Ground aviation, missile, sea, and space systems were all included. In this context, the pilot programs actually served two purposes: both are R-TOC pilots and logistics reinvention pilots, with the latter being a subset of the former. Successful R-TOC requires action from both a program and an infrastructure perspective, hence the early and pragmatic decision to “join R-TOC and logistics reinvention at the hip” – two distinct initiatives, each with a specific agenda, which complement each other to a high degree.

Developing, Implementing More Refined Tactical Plan

To develop and implement a more refined tactical plan, DoD designated the Directorate of Strategic and Tactical Systems as the R-TOC Focal Point in June 1998, charged with synchronizing and integrating ongoing R-TOC activities, championing the R-TOC cause, and overseeing the pilot programs using methods that had proved successful with the earlier CAIV flagship programs. The tactical approach taken by the directorate had components that flowed from the three key BPR elements of the overall DoD attack on R-TOC.

VISIBILITY AND PRIORITY

In the area of increased visibility and priority, the Department took two actions to direct resources to TOC reduction. First, the DPG released in April 1999 directed the Services to program \$200 million per year to boost O&S cost-reduction activities. In a May 1999 memorandum, Dr. Jacques Gansler, then USD (AT&L) [Under Secretary of Defense for Acquisition, Technology and Logistics], asked the Service Under Secretaries and the Vice Chiefs of Staff for their “... proactive support for the future readiness of our forces through sustained modernization.”

The memorandum also laid out a need for formal cost-reduction plans for the pilot programs based on trade-offs in three key areas: reduced demand from weapon systems via reliability and

maintainability improvements; reduced supply chain response times, leading to reduced spares, system support footprint, and depot needs; and competitive sourcing of product support, leading to streamlining and overhead reductions.

Also, OSD established an additional source of funds with Program Budget Decision (PBD) 721 in December 1999. PBD 721 identified \$56 million in funds for “... cost reduction efforts that show promise of performance improvements and high return on investment (ROI) but are lacking in the up-front investment money to initiate the projects.” This PBD was important on at least two counts.

- First, supporting initiatives such as interactive electronic technical manuals for which program funds are often difficult to find, will generate real savings that would otherwise probably not be realized. Within the *Future Years Defense Plan*, the overall PBD 721 ROI is projected to be greater than 6:1.
- Second, and possibly more important is the fact that the PBD demonstrated to the Services, especially to Service PMs, much more forcefully than any number of inspirational talks, that OSD senior leadership was committed to R-TOC.

CHANGING BEHAVIOR

Strong working relationships were shaped to change the behavior of key players in the process. An R-TOC Working Group was established under the leadership of the Focal Point where interested parties were encouraged to attend and participate in an open atmosphere. The Working Group discusses and informally coordinates all actions before passing them to senior leadership, including the DPG language, the May 1999 memorandum, and the R-TOC PBD previously discussed.

INSTITUTIONALIZATION

Ongoing joint forums and procedures for discussion and oversight were created to help institutionalize processes within the Services for implementing solutions. The most important of these

were quarterly Pilot Program Forums. The Forums are used to exchange information with and among the pilot programs on a “not for attribution” basis. Despite (or possibly because of) the informality, the Forums serve as an effective mechanism for policy changes. Service and Defense Acquisition Executives opened the early Forums, demonstrating senior leadership commitment. Written and oral summary (but not program-specific) reports of Forum results were provided to senior leadership. Issues raised, either in the Pilot Program Forums or in the R-TOC Working Group meetings, were rapidly brought to the DSAC for resolution and guidance.

Actions Taken by the Services

Each Service has implemented the R-TOC program in a way tailored to its own needs and institutional processes. As will be seen in the following brief overviews, the Service programs exhibit both common threads and specific innovations unique to each Service.

Navy Execution of R-TOC Program

To illustrate the seriousness of the Navy TOC problem, in fiscal 2001 alone Navy O&S costs increased \$3.4 billion, or 6.7 percent, for a theoretically stable force structure. Additionally, the Navy, expecting the problem to grow worse, forecasted that the average retirement age for ships would increase to the 30- to 37-year range. By comparison, the average age of ships retired by the Navy during fiscal 1999 was less than 22 years. Aircraft were forecast to display a similar trend. The Navy answer to these challenges – its well thought-out way of increasing visibility, getting something going, and starting the process of institutionalization – was the Navy Cost Reduction and Effectiveness Improvement (CREI) process.

The CREI process begins with the observation that nearly everyone has good ideas on how to reduce costs and improve effectiveness. Yet, too few formalized outlets for these ideas exist, and when they are formally proposed, responses have often been bureaucratic and obstructive. The Navy CREI process was formulated to ensure ideas that re-

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duce costs, reduce workload, improve quality of life, and improve readiness are appropriately vetted, funded, and implemented. These ideas are then competed and balanced against other priorities during the Navy budgeting process.

The key to CREI success, as is the case with R-TOC generally, is leadership by those with direct knowledge of, and influence over our fiscal resources and associated challenges. Tri-Chairs of the CREI Council are senior executives from the Assistant Secretary of the Navy for Research, Development and Acquisition; the Deputy Chief of Naval Operations for Warfare Requirements, Assessments and Resources; and the Deputy Chief of Staff for Programs and Requirements. Included on the Council are the Department of the Navy Budget Officer; Deputy Chief of Naval Operations for Logistics, Atlantic and Pacific Fleet Maintenance Officers [N43s]; and various other representatives from Secretariat and Service Headquarters offices. Understandably, the role of the financial community in this process is indispensable.

The CREI process can perhaps be best illustrated by the Program Objective Memorandum (POM-02) experience, which ran from September 1999 through early May 2000. In response to an initiatives’ call, Navy units submitted 126 initiatives for funding consideration. The excellent response reflected three findings: a sense that it was the right thing to do, top management attention, and protection of savings.

The last finding deserves special discussion. A key disincentive to proposing similar initiatives in the past was the all-too-often-realized fear that higher-level management would appropriate any savings, both real and imaginary, leaving the proposing activity potentially worse off than before. CREI ground rules ensure that if a Resource Sponsor funds an initiative, the sponsor keeps the associated savings to reapply toward unfunded requirements. The sponsor, in turn, is encouraged to provide similar positive incentives to the other activities submitting proposals to encourage more aggressive participation.

To assist in selecting among initiatives, the Navy created a disciplined ranking process that took into account financial measures such as internal rate of return as well as risk and utility. Although the largely mechanical ranking process is intuitively defensible and involves the right players, experience has long shown that decisions on complex issues with potentially major consequences deserve something beyond a mechanical approach. While a ranking process is an important decision aid, some issues and implications come to light only after discussion (and sometimes debate) in a senior-level forum.

After careful consideration, 23 of the CREI proposals were presented to a senior-level CREI Council for review based on the dollar magnitude, policy implications, or other significant characteristics such as extraordinarily high returns. Final ranking reflected integration of senior-level priorities with those determined mechanically. The Navy views the results of the POM-02 experience as an unqualified success. New POM-02 CREI

investments totaled about \$1 billion across the fiscal 2002-2007 *Future Years Defense Plan*; these initiatives are expected to produce an average ROI of 5.3 to 1.

Army Execution of R-TOC Program

To provide visibility and priority, the Vice Chief of Staff of the Army and the Under Secretary of the Army chartered the Army TOC program. Within that charter, the Army TOC Directorate administers the Army's program. The TOC Directorate is the central Army TOC integration point and change agent, with the following primary responsibilities:

- Fosters TOC awareness across the Army.
- Identifies needed changes and improvements in TOC processes and procedures.
- Develops funding for TOC issues.
- Encourages the development and submission of TOC initiatives.
- Serves as the primary interface with the DSAC.

As is the case with both the Navy and the Air Force, the Army also suffers from a fleet that is getting older. Thus, a particular focus of the Army program is recapitalization of Army systems – the systems upgrades needed to bring the fleet to a zero time/zero mile condition. In addition to reducing O&S costs, recapitalization also extends service life; improves reliability, maintainability, safety, and efficiency; and enhances capability. Without question, recapitalization is an essential component of overall system life cycle management. In this regard, a basic concept behind both the Army TOC program and life cycle management is that these responsibilities are inherently shared by the PMs and the sustainment community. As mentioned earlier, although the PM naturally is better positioned to “see” across a specific program, sustainment functional managers have superior visibility within functions: *neither is in a position to go it alone*. The Army considers this fact of life to be one of the major lessons from Army pilot programs – long-term institutionalization of R-TOC depends on understanding it. And the importance of understanding

R-TOC directly translates to the DoD level, as will be evident in the next section on the Air Force program.

In terms of process, the Army TOC program has many of the same characteristics previously outlined in conjunction with the Navy program. The TOC Directorate assists in development of initiatives by providing the analysis tools and processes as well as assisting with funding methods. In a process corollary to the Navy CREI, the Army uses a cross-Army Working Integrated Product Team (WIPT) and Senior Steering Group (SSG) to review, prioritize, and support funding for initiatives.

The WIPT is comprised of GS-14/15 and O-5/6 members, while the SSG is comprised of members of the senior executive service and major generals. Army TOC initiatives can be submitted at any time; however, the TOC office, on behalf of the Vice Chief of Staff of the Army, conducts two semiannual data calls for TOC initiatives, which are timed to support the POM cycle.

In the most recent cycle, the data call resulted in 137 TOC proposals, eight of which the office subsequently presented for Vice Chief of Staff of the Army support. (As this article goes to press, another 20 are in the process of financial validation.)

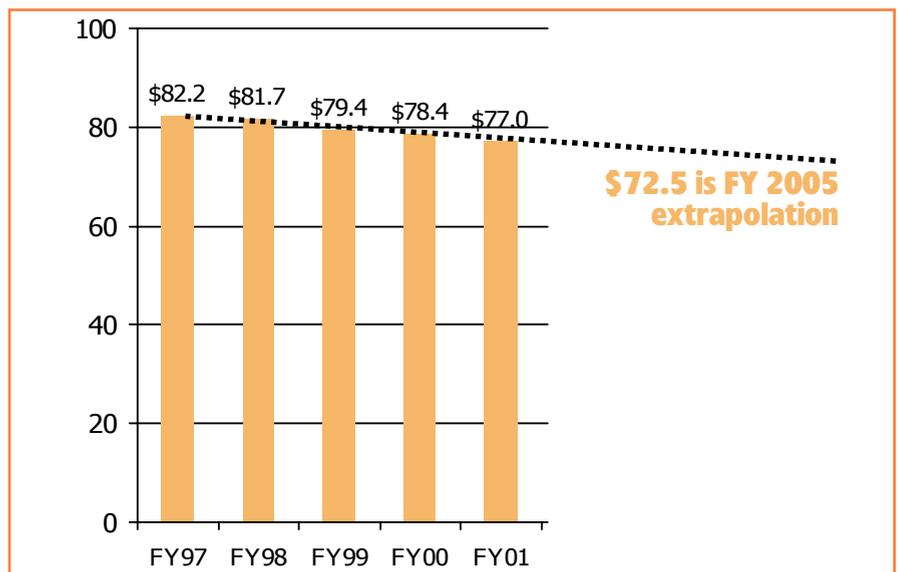
Air Force Execution of R-TOC Program

The objectives of the Air Force program were first to control costs, second to reduce costs, and third to use the results of the first two objectives to enable modernization reinvestment. Thus the Air Force, like its sister Services, saw the imperative of finding a way to transform the death spiral into a vital spiral. Figure 2 shows the elements of the Air Force R-TOC program, which encompasses three dimensions or thrusts: programs, infrastructure, and related concepts. Concepts ultimately determine the shape of programs and resources needed to operate them. The program thrust, naturally, is the responsibility of system program managers. The infrastructure thrust, in the view of the Air Force, is the responsibility of its wing commanders. Concepts, the most far-reaching thrust, involve choices and decisions that lie with the Secretary of the Air Force and the Air Force Chief of Staff.

The program thrust involves at least two important aspects: the development of the Air Force Total Ownership Cost (AFTOC) database as a means of increasing TOC visibility, and the role of pilot programs.

The purpose of AFTOC is to provide timely visibility into costs of major weapon systems – including their subsystems and components – across ap-

FIGURE 3. Total DoD Logistics Support Costs (FY97 \$B)



propriations and major commands, based on actual historicals (rather than estimates). Eventually, AFTOC will capture all Air Force TOC. AFTOC was designed to satisfy the needs of managers, at both headquarters and field level, for information such as cost-per-flying-hour, top cost drivers, and cost trends (e.g., due to aging aircraft). AFTOC implements a data warehouse concept by integrating data from 10 different Air Force databases, in contrast to the situation that existed prior to AFTOC, where individual managers had to consult a wide variety of databases and then integrate results themselves.

Air Force pilot programs have been the Air Force's way of getting something started. They encompass the B-1, KC-135, F-16, Space-Based InfraRed Systems, F-117, Airborne Warning and Control System, Cheyenne Mountain, Joint Surveillance Tracking and Attack Radar System, C-17, and C-5. In this case, as is true generally for DOD R-TOC, the pilot programs include a mix of systems in different environments and stages of the life cycle. The Air Force established reduction goals for each of these pilots, put implementation plans in place, and is now able to measure preliminary results. Specifically, 48 initiatives from within the pilot programs are currently forecast to generate over a third of a billion dollars in savings.

The Air Force also recognized the need for an incentives program to redress the historical concern about higher-level management appropriating savings, potentially leaving the organization that generated the savings worse off than before. The Air Force response was the Cost Savings Modernization Initiative (CSMI) process, which in effect is the starting point for the institutionalization process. Similar in concept to the Navy CREI, savings generated by a major command (MAJCOM) are available for reinvestment by the MAJCOM that generated them. If the CSMI is forwarded to the Vice Chief of Staff for Air Council approval, then the savings would be available for reinvestment anywhere in the Air Force. The bottom line of this process,

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as was the case for the Navy, is that savings are available for reinvestment *by the organizational level that generated them.*

Results Are Not Instantaneous

One of the realities of TOC reduction is that results are not instantaneous. It takes time to identify promising initiatives, to put them in place, and then more time to see evidence that ownership cost is decreasing. The Department's R-TOC program has been formally in place since January 1999, when *Into the 21st Century — A Strategy for Affordability* was published. Already, leading indicators confirm that R-TOC is working, but also reflect evidence of future challenges.

First Indicator — Logistics Costs

The first indicator is the behavior of logistics costs. As noted earlier when

discussing the Department's approach, one of the more important objectives of the strategy was to reduce logistics costs by 7 percent in fiscal 2000; 10 percent in fiscal 2001; and, as a stretch target, 20 percent by fiscal 2005. Figure 3 shows the current projections as taken from the fiscal 2002-2007 POM. Clearly, the trend is in the right direction, but the fiscal 2005 stretch target remains a challenge. The fact that fiscal 2005 procurement is projected at \$68.4 billion will also help — increased modernization will reduce O&S costs even further.

Second Indicator — TOA Costs

A second indicator is the behavior of total DoD logistics and other infrastructure costs as a percentage of TOA. Trends here are also very favorable. The Department will surpass its goals in fiscal 2000 and fiscal 2001, and based on POM 2002-2007 data (Figure 4), is projected to achieve its fiscal 2005 goal.

Third Indicator — Overall Numbers Tell the Story

Finally, looking at the evidence from the pilot programs themselves is instructive. Of the 30 pilot programs, 13 have now reported that they would achieve or exceed the 20 percent stretch goal with increased readiness. A year ago, only six programs projected that they would reach the target. Average savings are about 18 percent as compared to 10 percent one year ago.

The Future

To enable further significant improvement, several fundamental issues — each associated with building better relationships with customers and stakeholders — must be addressed explicitly.

Competitive Sourcing and the Congressional Stakeholder

One of the important enablers of R-TOC, as noted at the beginning of this article, is the Department's strategy of reengineering logistics through competitive sourcing of product support. The expectation, for which abundant empirical support exists, is that competitive sourcing will result in a more efficient infrastructure, will further reduce sup-

port and infrastructure costs, and will enable transfer of those savings into modernization accounts.

Since competitive sourcing will affect the choice between public and private providers with regard to the Congressional stakeholder, a dialogue is needed on logistics support generally and depot maintenance specifically, to provide for an agreed-to means of selecting the best providers. Neither the public nor the private provider is, per se, inherently the more effective and efficient provider. Efficiency is inherently higher where competition or some similarly powerful incentive exists. Further, the situation today is viewed in bipolar (private or public) terms, where the choices are actually becoming richer, especially with the advent of public-private partnerships or partnership-like arrangements.

Better Interfaces with Industry

Better interfaces are also needed with industry stakeholders. In a February 2000 letter to the Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, the Aerospace Industries Association noted “industry’s inability to get a DoD decision on proposed logistics innovations ... [and the lack of an effective] ... mechanism within DoD for evaluating and implementing attractive, innovative contractor proposed solutions.”

DoD has always recognized the need to look to industry for weapon system technologies. It is increasingly clear, however, that DoD should look to industry for advances in business processes as well. As is evidenced by the continuing increase in U.S. industrial productivity, “best commercial practices” is more than a slogan – it summarizes a set of new, often information technology-enabled process improvements that are of considerable potential value to the Department in reducing TOC.

Needs of PM Stakeholder

PMs for the R-TOC pilots are another set of crucial stakeholders. They often find it difficult to obtain the funding necessary to develop and validate solutions to R-TOC problems. Even when solu-

tions are known, funding is always an issue – a great deal of “lobbying” time is needed, and the outcome is uncertain. This is particularly true when, as is often the case, the initiative will directly or indirectly affect the business base or structure of an organization that is in the approval chain. PBD 721 is an important step in the right direction, but R-TOC problems will undoubtedly require an enduring, probably more robust solution.

Warfighter Customer’s Role

DoD’s R-TOC efforts have not always leveraged the Department’s greatest asset – the warfighter customer. DoD needs to find a way to provide the warfighter customer a more active role. One of the original tenets of R-TOC was establishing formal performance agreements with the warfighter. Thus far, few examples of this are currently in practice. Key to implementing needed changes in this arena is probably developing effective ways to blend capability increases with R-TOC via modernization programs.

Simplifying Funding Flows

Another lesson – and a problem yet to be resolved – is the need to simplify funding flows. The complexity of funding flows, in terms of both the number and “layers” of organizations involved both inside and outside the Services, is

a significant impediment to TOC reduction effectiveness. Additionally, obtaining realistic estimates of the total system costs (present, past, and future) is a daunting challenge. Total system costs involve second- and third-tier indirect costs, which are difficult to evaluate because of the lack of recordkeeping and the lack of adequate algorithms to determine such costs.

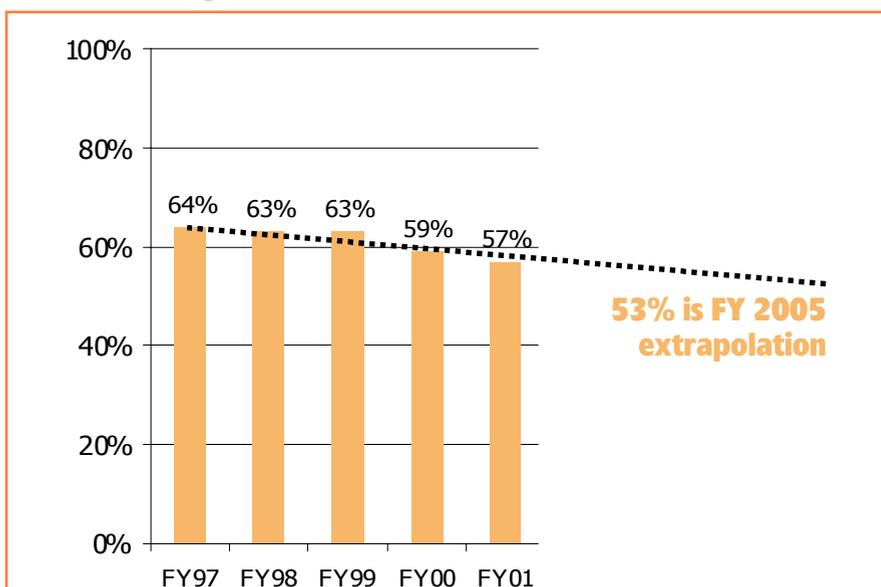
Pointing in the Right Direction

Remarkably, even at this early stage of the R-TOC initiative, the Department has achieved overwhelmingly positive results. Critics will be quick to point out projected savings (cost avoidances) are not the same as realized savings. However, cost avoidances equate to savings in future budget years. Meanwhile, to see these early, leading indicators consistently pointing in the right direction is indeed heartening.

Pilot programs have shown the way forward – all programs should eventually show similar savings. Work, however, remains to be done to fully capture the long-term savings yet to be realized from this vital initiative.

Editor’s Note: The authors welcome questions or comments on this article. Contact Mandelbaum at Jay.Mandelbaum@osd.mil; contact Pallas at spiros.pallas@osd.mil.

FIGURE 4. Total DoD Logistics and Other Infrastructure Costs As a Percentage of TOA



FAR REVISIONS

ELECTRONIC COMMERCE IN FEDERAL PROCUREMENT

The Federal Acquisition Regulation (FAR) has been changed to further implement the use of electronic commerce in awarding federal contracts. The FAR change designates a single point of universal electronic public access to Governmentwide procurement opportunities (the "Governmentwide Point of Entry" or "GPE"). Agencies may provide access to notices through the GPE, as designated in the FAR, instead of publishing them via the *Commerce Business Daily* (CBD). This provides contractors that are interested in doing business with the Federal Government an easily accessible electronic means of determining government's upcoming needs.

The Federal Business Opportunities ("FedBizOpps") has been designated as the GPE. Agencies have until

Oct. 1, 2001, to complete their transition to, or integration with, FedBizOpps. By that date, all agencies must use FedBizOpps to provide access to public notices of procurement actions over \$25,000 that are currently required to be published in the CBD, along with associated solicitations and amendments. In addition, agencies will not be required to provide notice in the CBD as of Jan. 1, 2002, since access to this information will be provided on the Internet through FedBizOpps. According to Defense Procurement Director Deidre A. Lee, "Moving to an electronic commerce system to simplify and streamline the procurement process will enhance customer service and promote cost effectiveness."

EXECUTIVE ORDER (EO) 13202

PRESERVATION OF OPEN COMPETITION AND GOVERNMENT NEUTRALITY TOWARD GOVERNMENT CONTRACTORS' LABOR RELATIONS ON FEDERAL AND FEDERALLY FUNDED CONSTRUCTION PROJECTS

The FAR has been changed to implement EO 13202, *Preservation of Open Competition and Government Neutrality Toward Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects*, dated Feb. 22, 2001, as amended by EO 13208, dated April 11, 2001.

This FAR change provides that agencies may not require or prohibit offerors, contractors, or subcontractors from entering into or adhering to agreements

with one or more labor organizations. It also permits agency heads to exempt a project from this requirement under special circumstances in order to avert an imminent threat to public health or safety, or to serve the national security. The exemption may not be related to the possibility of an actual labor dispute. An exemption may be allowed for projects governed by a project labor agreement in place as of Feb. 17, 2001, which had a construction contract awarded as of Feb. 17, 2001.

EO 13204

REVOCATION OF EXECUTIVE ORDER ON NONDISPLACEMENT OF QUALIFIED WORKER UNDER CERTAIN CONTRACTS

The FAR has been changed to implement EO 13204, *Revocation of Executive Order on Nondisplacement of Qualified Worker Under Certain Contracts*, dated Feb. 17, 2001. The EO requires that any FAR changes implementing EO 12399, *Nondisplacement of Qualified Worker Under Certain Contracts*, be promptly rescinded. EO 12399 required that building service contracts for public buildings include a clause requiring the contractor, under a contract that succeeds

a contract for performance of similar services at the same public building, to offer certain employees under the predecessor contract, a right of first refusal to employment under the new contract. This FAR change removes this requirement.

Editor's Note: FAR revisions are posted to the General Services Administration Web site at <http://www.arnet.gov/far/>.

Early Testing Key to Significant R-TOC for DoD Weapon Systems

Army Test & Evaluation Command Highlights R-TOC Initiatives at 14th Test Technology Symposium

PATRICK SWAN

Examining how test and evaluation contributes to Reduction in Total Ownership Costs (R-TOC) in program management was the theme for the 14th Test Technology Symposium. Sponsored by the Army Test and Evaluation Command (ATEC), this year's event was held May 1-2 at the Turf Valley Resort and Conference Center in Ellicott City, Md.

From a diversity of speakers and presentations, two strategies emerged as most effective in significantly reducing total ownership costs:

- Early, well-planned and well-executed testing can reduce total ownership costs for proposed weapon systems.
- By using instrumentation embedded into vehicles, aircraft, and other military equipment, today's technology permits continuous data collection. As a result, continuous performance evaluation helps predict and collect the true total ownership costs.

National-International Presence

A record 170 participants attended, including representatives from Office of the Secretary of Defense (OSD); testers and evaluators; program managers; experts in science and technology and battle labs from all Services; private industry; academia; and representatives of Canada, France, Germany, and the United Kingdom.

Swan is a public affairs specialist with the Army Test and Evaluation Command, Alexandria, Va.



Army Lt. Col. Stephen T. Tate, ATEC liaison officer to the United Kingdom, inspects the truck used by Aberdeen Test Center's VISION [Versatile Information Systems Integrated Online] system. Instruments on-board measure the effects of roadway conditions on the truck during normal city driving, which helps automobile and truck manufacturers design and produce safer vehicles. VISION is one of the many testing services Aberdeen Test Center provides to civilian industry.

Conferees listened to presentations from distinguished panelists, including Walt Hollis, Deputy Under Secretary of the Army for Operations Research; John Gehrig, Deputy Director of Resources

and Ranges, Defense Operational Test and Evaluation; Dr. Ernest Seglie, Science Advisor to the Director for Operational Test and Evaluation, OSD; and Mike Novak, Strategic and Tactical Sys-

tems, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics).

Variety of Perspectives

The presentations and panel discussions considered R-TOC from a variety of perspectives. Setting the stage in his May 1 keynote address, Gehrig posed the question, "How can you manage something if you don't know what it costs?"

Gehrig stated that effective test and evaluation actually drives down total ownership costs when it detects problems early, thereby providing early corrections to flaws. Besides early testing and continuous performance evaluation, he spoke of two additional means to reduce total ownership costs:

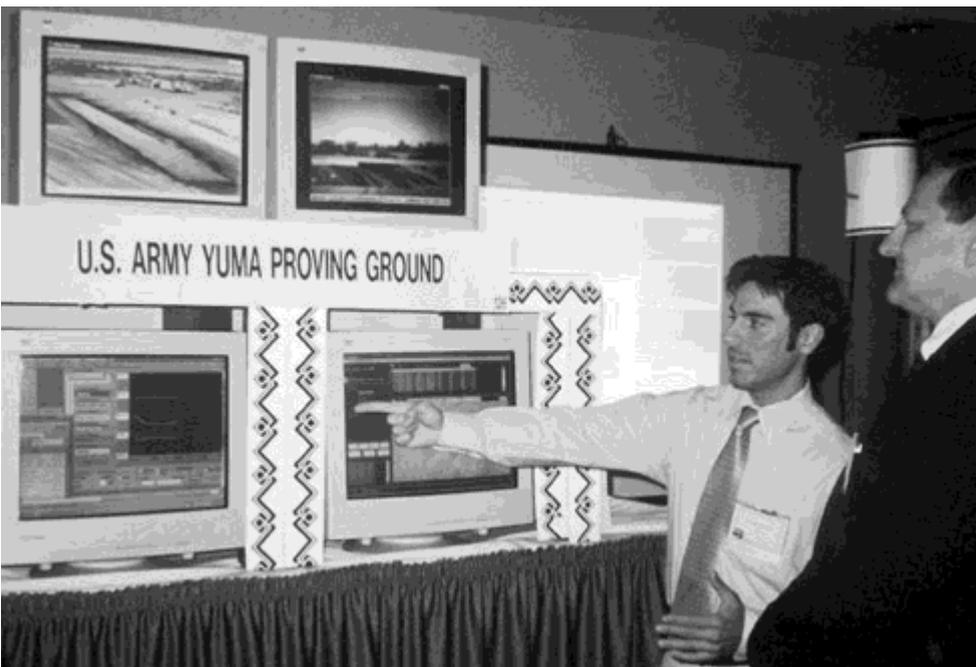
- Combining developmental testing with operational testing and operational testing with training, where appropriate.
- Supplementing test and evaluation with modeling and simulation.

Hollis described the dilemma program managers face in scheduling tests even as they strive to reduce costs. If tests are successful, program managers may feel they have wasted limited dollars to prove something they already knew was right. And if tests fail, he countered, they now have a problem they must fix that may throw them off schedule.

Adding his support to the idea that test and evaluation can contribute significantly to R-TOC, Hollis said that there will be considerable focus on R-TOC to help finance the Objective Force. He also called attention to Reliability, Availability, and Maintainability testing as an area for concentration and opportunity for payoff.

Hollis stressed the need for a decent data collection system for components to achieve specific R-TOC, along with computer programs to sort the data. PMs, he said, should "drive systems to the red line" with early testing. Last, he noted that systems would benefit from the involvement of more warrant officers and

Gregory M. Vickers, Systems Test and Assessment Deputy Director at White Sands Missile Range, N.M., explains the successful testing of PAC-3 missiles fired to intercept multiple incoming dummy warheads launched from separate points around New Mexico.



Joseph J. Tardiolo, a test engineer with Yuma Proving Ground's Materiel Test Center, explains live video of anti-lock break skid tests at Yuma to Darrell E. Bench, a computer scientist from the Technology Management Division of Army Developmental Test Command.

noncommissioned officers in maintenance of systems before field testing.

While supportive of R-TOC efforts, Seglie said they may prove ineffective without regulatory "teeth" that help force/support the program. Citing three testing criteria, he said systems should be tested until failure, designed for growth, and be subject to durability testing throughout.

In panel discussions, Seglie reminded his colleagues that increased developmental testing will reduce total ownership costs if the program manager is given incentives. He also advocated simulations, stating that they not only ensure that a system is ready for a test but also contribute to the overall success of testing.

Novak discussed how R-TOC is adversely impacted by budgeting and operational trends on force structure and readiness. The failure of DoD to keep pace with private sector improvements in logistics and the supply chain, he said,

also contributes to problems in achieving R-TOC. Novak outlined a pilot program to maintain and improve readiness by reducing total ownership costs 20 percent by fiscal 2005. Calling for increased sharing of R-TOC among complementary DoD programs, he concluded that overall, a small amount of seed money will reap large benefits in R-TOC.

Symposium Chair Dr. C. David Brown, Director for Test and Technology, U.S. Army Developmental Test Command gave voice to the OSD perspective on R-TOC. It has OSD's attention, he stated, and the Department believes that test and evaluation, particularly early direct testing, can contribute significantly to R-TOC.

Modeling and Simulation in R-TOC

Through various presentations, other program managers at the symposium explained that total ownership cost is a focus area, and they depend highly on test and evaluation to yield the essential

information necessary to predict and quantify total ownership costs. Modeling and simulation, they agreed, plays a significant role: first as a tool to improve testing, enabling more thorough planning and focusing testing on predicted failure or high-stress areas; and second, as an excellent design tool to assure that systems are designed with an eye to reliability and maintainability.

In addition to the many technical presentations, conferees viewed educational displays and demonstrations from representatives of White Sands Missile Range, N.M.; Electronic Proving Ground, Fort Huachuca, Ariz.; Aberdeen Test Center, Aberdeen Proving Ground, Md.; Yuma Proving Ground, Ariz.; Redstone Technical Test Center, Huntsville, Ala.; and Real Networks, Inc.

Editor's Note: The author welcomes questions or comments on this article. Contact him at swanpatrick@atec.army.mil. For more information on R-TOC, visit the Air Force R-TOC Web site at <http://www.safaqxt.rtoc.hq.af.mil/links.cfm>

From the White House Office of the Press Secretary

President George W. Bush today [May 15, 2001] announced his intention to nominate Marvin R. Sambur to be Assistant Secretary of the Air Force for Acquisition, Research, and Development. He is currently a consultant with ITT Industries where he has served for over 25 years. He has served in several capacities, including President and CEO of ITT from 1998 to 2001, President and General Manager of the ITT Aerospace and Communications Division from 1991 to 1998, and President and General Manager of ITT's Electronics Technology Division from 1988 to 1991. A resident of Fort Wayne, Ind., he received his bachelor's degree from City College of New York, and a master's degree and Ph.D. from Massachusetts Institute of Technology.

Editor's Note: This information is in the public domain at <http://www.whitehouse.gov/news>.

Statement of Deidre Lee Director of Defense Procurement

On the Redesigned Defense Procurement Web Site

I am delighted to announce the redesigned Defense Procurement Web site. Our goal is to meet the needs of the Defense procurement community by providing timely information in a user-friendly way. This means a Web site that is logically laid out, easy to use and navigate, and compliant with Section 508 requirements regarding accessibility by persons with disabilities. We are also providing expanded descriptions of how changes or new policies impact the way field contracting professionals do their jobs. This is just a first step—we plan on expanding and further refining our site to better serve our primary customer—the contracting professionals who buy the services, supplies, and systems the Defense Department needs to defend our country.

Access the Web site at <http://www.acq.osd.mil/dp/>. Questions or comments regarding the redesigned site should be directed to Robert Bembem of our Electronic Business Initiatives Office at (703) 695-1098. Direct email comments to DoDProcurement@osd.mil.



DoD Presents S&T Transition for Affordability Award

The Department of Defense presented today the first Science and Technology (S&T) Transition for Affordability Award to government and industry team members from the Army's Guided Multiple Launch Rocket System (MLRS) Advanced Technology Demonstration program.

The award recognizes and honors individuals most responsible for outstanding technical accomplishments and contributions, both government and private sector, in achieving technology transition for affordability into a military system. Delores M. Etter, acting director for Defense Research and Engineering, presented the award at the 2001 S&T Affordability Conference at the Fairview Park Marriott, Falls Church, Va.

The guided MLRS advanced technology demonstration improved the accuracy and extended the range of an existing rocket system that was used in Operation Desert Storm. Although the system was very effective in delivering large quantities of destructive firepower, the military commanders returned from the Gulf War asking for one improvement: increased range.

Upon execution of this program, it was discovered that it was necessary to also improve the accuracy of the rocket because of the inherent delivery inaccuracies that occur with extended ranges of 32 to 45 kilometers.

The Army's Missile Command, Redstone Arsenal, Ala., responded to the challenge to design, develop, and successfully flight test an affordable, extended range MLRS. Cost-ef-

fective non-developmental or commercial components were used, in particular the Honeywell HG-1700 inertial measurement unit, to design the guidance and control section of the rocket. This section was then fabricated, tested, and incorporated into the nose of the previously free-flight MLRS rocket. The guided MLRS is now able to fly greater than 45 kilometers and has at least a twenty-fold improvement in delivery accuracy. The affordability benefits of this improved system are a six- to ten-fold reduction in the number of rockets required to defeat a target, with an 80 percent reduction in the cost of ammunition expended on a target due to the improved accuracy of the system.

As a result of meeting all guided MLRS exit criteria goals, a four-year international, cooperative-guided MLRS engineering, manufacturing, and development program was approved in 1998 and is now underway.

The work was performed by a government/industry team with the prime contract executed by the Army Aviation and Missile Research, Development and Engineering Center.

More information on the 2001 S&T Affordability Conference and related links may be found on the Web at <http://www.affordability.org>.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news>.

DSMC 30TH ANNIVERSARY

Celebrating Acquisition Education

The Defense Systems Management College (DSMC) and the Defense Acquisition University (DAU) celebrated their 30th and 10th Anniversaries respectively, on June 5, 2001, at Fort Belvoir, Va. The day's events served as an affirmation of DoD acquisition education and its past, current, and future successes, bringing together staff, faculty, alumni, visitors, colleagues, and friends from across the nation.



The "Old Guard" Fife and Drum Corps is the only unit of its kind in the armed forces, and is part of the 3rd U.S. Infantry. Stationed at Fort Myer, Va., the musicians of this unit recall the days of the American Revolution as they parade and perform in uniforms patterned after those worn by the musicians of Gen. George Washington's Continental Army.



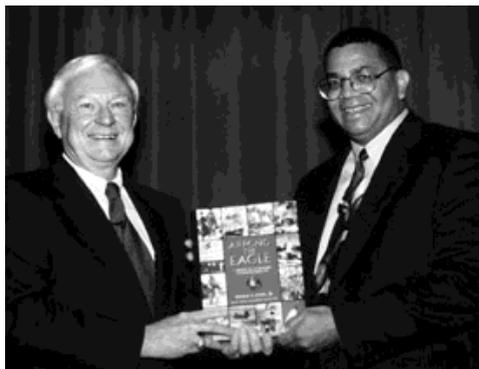
Mark Salesky, President, DSMC Alumni Association (center), and Maureen Fino, Vice President, DSMC Alumni Symposium, present USD(AT&L) E.C. "Pete" Aldridge, with a small memento on behalf of the Alumni Association. Aldridge served as keynote speaker for the DSMC 30th/DAU 10th Anniversary Celebration.



Current and former DSMC Commandants attending the DSMC 30th/DAU 10th Anniversary Celebration. From left: current DSMC Commandant, Army Col. (P) James R. Moran (16th Commandant); retired Air Force Brig. Gen. Charles P. Cabell (9th Commandant); Air Force Maj. Gen. Claude M. Bolton Jr. (12th Commandant); retired Air Force Lt. Gen. John Albert (2nd Commandant); retired Air Force Brig. Gen. Frank Anderson Jr. (15th Commandant); retired Army Brig. Gen. Benjamin Pellegrini (6th Commandant); retired Navy Rear Adm. Leonard Vincent (14th Commandant); and retired Navy Rear Adm. William L. Vincent (11th Commandant).



DSMC Commandant, Army Col. (P) James Moran presents James N. Davis with a framed, matted photograph of the College. Davis is a former Deputy Assistant Secretary of Defense for Weapons Acquisition and Industrial Readiness. In 1963 he led the effort that resulted in the establishment of the Defense Weapon Systems Management Center, which in 1971 relocated to Fort Belvoir, Va., as the Defense Systems Management School. In 1976 the School at Fort Belvoir became today's Defense Systems Management College.



DAU President Frank Anderson Jr., presents a copy of *Arming the Eagle*, to the new USD(AT&L), E.C. "Pete" Aldridge. *Arming the Eagle*, written by former DSMC Professor Wilbur D. Jones Jr., is a history of U.S. weapons acquisition since 1775.



Retired Navy Rear Adm. Leonard Vincent, DSMC's 14th Commandant, participates in the Q&A discussion that followed E.C. "Pete" Aldridge's keynote address.



Guest Speaker, Army Maj. Gen. Joseph L. Bergantz, Program Executive Officer, Aviation.

— DAU 10TH ANNIVERSARY

Yesterday, Today, and Tomorrow



DAU President Frank Anderson Jr., recognizes Paulette Langlas and Helen Pinkerton, who between them served as Executive Secretary to 15 of DSMC's 16 Commandants.



Two very distinguished guests: John Douglass, former Assistant Secretary of the Navy for Research, Development and Acquisition; and Colleen Preston, former Deputy Under Secretary of Defense for Acquisition Reform.



From left: James L. Sanford, VP, Corporate Contracts & Pricing, Northrop Grumman; Eric M. Levi, Consultant; DAU President Frank Anderson Jr.; Peter DeMayo, Consultant; and James M. Gallagher, President, The Dayton Group.



DAU President Frank Anderson Jr. presents a DSMC 30th Anniversary/DAU 10th Anniversary souvenir cup to Mrs. Winfield Scott III, widow of Army Brig. Gen. Winfield Scott III. Gen. Scott served as first commandant of the Defense Systems Management School from February 1971 to July 1974. In 1976 the School became the Defense Systems Management College.



Reception and Cake Cutting, Packard Conference Center. Front row, from left: Retired Navy Rear Adm. Leonard Vincent; Mrs. Leonard Vincent; Mrs. Benjamin Pellegrini; Mrs. James Moran; DSMC Commandant, Army Col. (P) James Moran; Mrs. Winfield Scott III; DAU President Frank Anderson Jr.; Helen Pinkerton; and Paulette Langlas. Back row, from left: Retired Army Brig. Gen. Benjamin Pellegrini; Air Force Maj. Gen. Claude Bolton Jr.; Mrs. Claude Bolton; retired Air Force Brig. Gen. Charles P. Cabell; retired Navy Rear Adm. William Vincent; retired Air Force Lt. Gen. John Albert; and Mrs. John Albert.



DSMC Commandant, Army Col. (P) James Moran recognizes Lou Jones, Information Systems Department, as the longest-serving DSMC employee.



Paul McIvaine sings *The National Anthem*. Not pictured is retired Air Force Col. Norman A. McDaniel, who delivered the Invocation.



"Old Glory" and the U.S. Armed Forces Color Guard, Military District of Washington.

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White: Army Needs Better Business Practices

JOE BURLAS

WASHINGTON (Army News Service, June 14, 2001) – Secretary of the Army Thomas E. White plans to add business practices to the Army Vision’s current pillars of people, readiness and Transformation.

Just shy of two weeks into his new job, the retired Army brigadier general and former corporate CEO made that “on-the-record” announcement during his first meeting with Pentagon correspondents June 12. “I spent 11 years in corporate America with Enron Corporation, an energy company,” White said. “...It is very, very clear to me that there is enormous potential to improve the basic business practices of this Department.”

To make that improvement, the Army needs to determine what its core responsibilities are and then outsource non-core activities to contractors who can give the Army a better-value proposition and improved service, he said. “We’re not just going to study it – we’re going to do it,” White told the reporters.

While praising the Army’s successful efforts to privatize family post housing, White gave other examples where the Army has been slow to contract out. One Army non-core activity, he asserted, is installation utilities. Congress gave permission to the Department of Defense to privatize its gas, electric, water, and sewage plants in 1997. Only one Army post, Fort Hamilton, N.Y., has turned over all its utilities to the corporate world in the ensuing four years, he said.

“Any business that was that slow in taking advantage of an opportunity would not be in business very long, he said. “I see no rea-

son whatsoever why the Army is in the energy business ... It’s a stupid business practice for the Army to be running itself that way.”

Another Army practice White questioned is that of having two Army staffs working at the Pentagon – one working for the Secretary of the Army and the other for the Chief of Staff.

“My view is that we ought to step back and say there’s got to be a better way to run this railroad – to combine these things so that we have one integrated staff that is still under civilian control of the military, but more efficiently uses the people we have than it has in the past,” he said. “And that corporate entity aligns better with the Joint Staff on its side of the table and the [Office of the Secretary of Defense] staff on its side of the table.”

On the issue of the Army adopting the black beret, White said he fully supports the Chief of Staff’s efforts and related how his armored cavalry infantry platoon wore them in Vietnam in 1969. He said surviving members of his platoon will be wearing them again in August when they meet for an 11th Armored Cavalry Regiment reunion at Fort McNair, Washington, D.C.

“There is a long tradition, not only in our Army, but in virtually every NATO army and a lot of other armies around the world, that heavy forces wore black berets,” White said. “Any time you stand out on NATO parade fields, you can clearly see that.”

The Secretary continued that he would like to see brass plaques on textile mills around

the country that state they make berets for the finest Army in the world. Further, he would like to send young soldiers wearing the black beret out to those mills from time to time so all could take pride in the Army's symbol of Transformation.

Comparing the Army's current Transformation efforts to the Army changing after the Vietnam War, White said today's Army is starting at a much higher readiness level with a more lethal force. A disadvantage is that the Army today faces less certain threats than the Army of the '70s and '80s.

"What I am demanding of the Army is that we have the same total commitment to Transformation that we had back in '72 and '73 – that is not optional," he said. "...If there are any disbelievers or people that don't quite see it that way, then they need to get on board."

Asked about his position on the need for another Congressional Base Realignment and Closure (BRAC) study, White said that he believes there currently is too much infrastructure to support the size of today's Army. However, he warned that the decision for another BRAC should not be made until the Quadrennial Defense Review is complete and the Services have time to determine the force structures they need to support [the QDR] findings. The QDR is expected to be complete by mid-July, he said.

On the subject of technology, White said the Army is behind the civilian sector in applying it to the organizational structure. "The Army has had its same hierarchy of forces – corps, division, brigade, battalion, company – since Napoleon," he explained. "Now along comes information technology. The impact of information technology in the private sector is to flatten organizations, widen spans of control, [and] be more horizontal, because everyone can very easily have the same situational awareness."

The Secretary said he can envision the possibility of the Army doing away with divisions 10 to 15 years from now. Instead, he said the Army might have brigades reporting [directly] to corps or through small mobile corps command posts. The Army has a number of testing facilities, like the National Training Center, which White said will allow the Army to experiment with information technology for command and control now.

White accepted the fact that his views will likely cause a lot of people to get excited, but said that was fine by him, as long as it also caused them to think.

Editor's Note: This information is in the public domain at <http://www.dtic.mil/armylink/news/>.

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WEB-ENABLED COURSES FOR DEFENSE INDUSTRY STUDENTS

In fiscal 2000, the Defense Acquisition University (DAU) developed a plan to offer all Web-enabled (online) courses to students who work for corporations in the Defense Industry. The program began at the start of the new fiscal year in October 2000.

No tuition fee will be charged to students for the online courses. This key feature of the program should encourage Defense Industry students to enroll in the courses, thereby building upon and enhancing the skills of the Defense Industry professional acquisition workforce. Students will find application for enrollment very easy, since the program will

use the same online application form that is currently used by industry students who apply for DAU resident courses – available at:

http://www.dsmc.dsm.mil/registrar/industry_applic.htm

The following courses are available to industry students online:

- Fundamentals of Systems Acquisition Management (ACQ 101)
- Fundamentals of Earned Value Management (BCF 102)
- Basic Information Systems Acquisition (IRM 101)

- Basic Software Acquisition Management (SAM 201)
- Acquisition Business Management (BCF 211)
- Simplified Acquisition Procedures (CON 237)
- Acquisition Logistics Fundamentals (LOG 101)
- Introduction to Acquisition Workforce Test and Evaluation (TST 101)

DAU has put together a high-quality program, and the University is confident the program not only has long-term growth potential, but will also be of great benefit to the Defense Industry as well as the students.

For more information, contact Art McCormick, Registrar for Industry Students:

Phone: 703-805-4498 Fax: 703-805-3709 E-mail: arthur.mccormick@dau.mil

In the March-April 2001 issue of *Program Manager Magazine*, John Stoddart, an industry member of the Industrial Committee on Operational Test and Evaluation (ICOTE), discussed his vision for changes in contractor involvement (or the lack thereof) in operational testing and evaluation. We may differ in some of the details of how to implement these changes, but we in the Army Test and Evaluation Command (ATEC) agree on the general thrust and intent of the recommendations. However, based on our experience in Army testing and evaluation, we are somewhat surprised at some of the misconceptions and myths found in the article.

The purpose of this letter is threefold – to add support to Stoddart’s basic recommendations, to dispel some of the myths, and to point out some limitations that must be imposed on these recommendations. I will also offer some new challenges for the defense contractor community.

There is really only one reason why we test – to learn. We are trying to fill the data voids in our knowledge about a new piece of equipment or system. The acquisition community (which includes the contractors) needs to know if the system meets contract specifications; and, more important, to know if it will achieve operational requirements. Army and OSD decision-makers need to know if the system is effective, suitable, and survivable before entering full-rate production. And probably the most critical reason we test is to let those responsible for the system’s development and procurement know what improvements are still required to provide our soldiers the best possible equipment.

The knowledge we gain through testing is of no benefit if it is confined within the test and evaluation (T&E) community. We have no capability to correct the deficiencies noted in testing. Knowledge is only useful if it is in the hands of those who have both the capability and the authority to use it. The program manager and his or her contractors cannot improve a system without full in-

formation concerning any deficiencies in the design or manufacture of the system. The combat developer cannot develop or correct the tactics, techniques, and procedures (TTP) until the system limitations and problems are clearly articulated. Decision-makers cannot make rational decisions on programs without the knowledge derived from the test arena.

This is the heart of Stoddart’s comments. Getting the contractors more closely involved with the T&E organizations will help move the knowledge to where it can be beneficial.

There is another side to this closer tie between the tester and the contractor that should not be ignored. Testers and evaluators cannot do their jobs well unless they really understand the systems they are testing, both at an engineering and an operational level. Closer links with the contractors should improve the base knowledge of the testers and evaluators, allowing them to gain even more insights into the system under test. This can be a true win-win situation.

Stoddart suggests that the contractors need access to the system requirements and T&E planning documents and processes, including the T&E integrated process team (IPT). I couldn’t agree more. But, where has the ICOTE been for the past 15 years? In the scores of T&E IPT and TIWG [Testing and Interoperability Working Group] meetings I have attended, it was the exception when contractor representatives were not there, and, in most cases, active participants. There have even been cases where meetings were held in contractor facilities so the T&E IPT members could get a first-hand look at what contractors were doing.

Contractors must understand not just the contract specifications, but also the operational requirements. This means having access to the mission needs statement (MNS), the required operational capabilities (ROC) or operational capabilities document (ORD), the organizational and operational (O&O) concept, and even the critical

operational issues and requirements. They should also see the operation mode summary/mission profile and the test and evaluation master plan (TEMP), and even the test scenarios. Stoddart asked why the PM doesn't just give these documents to the contractors. Not only do we have no objections to giving these documents to the contractors, but we also encourage the contractors to study them very carefully. Ask your PM for these items.

I am encouraged to hear contractors asking for these documents, especially the requirements document. Too often the contractors are totally focused on meeting a contract specification and no more. Yes, they need to meet the specifications, but that is not as important as meeting the operational requirement.

Some contractors seem unaware of what the soldier really needs, or how a system will be used on the battlefield. The only way to understand what you are trying to build is to see it through the eyes of the user. Contractors should have a few ex-soldiers on the team who are fully versed in the O&O concept and system requirements and who are constantly looking at every design decision through a soldier's eyes. If not, the contractor will probably fall short in the system design.

It's easy to make concepts work in the design room or on the proving ground. It's another matter to make them work well in a combat field environment. All contracts for defense systems should have a clause that forbids the contractor to ever use the term *minor annoyance*. What looks like a minor annoyance or minor software glitch in the lab can mean life or death to a young soldier under fire.

Contracts should also include a specification for the system to be user-friendly. And the Department of Defense needs to give more than lip service to this requirement. We need to build systems that are truly user-friendly, especially for combat systems. Commercial airliners have baggage com-

partment doors that close and lock with a simple motion. They stay closed and locked at 500 miles an hour, at 35,000 feet, and at minus zero-degree temperatures. Why can't a piece of Army equipment be as simple to operate and as reliable under similar conditions? I watched a high school graduate install my home satellite dish in 30 minutes. Why does a defense contractor bring a satellite dish to test that requires 138 steps to align? It is time for defense contractors to pay more attention to building effective, suitable, and survivable systems and not just to meeting minimum specifications.

On the issue of access to test plans and scenarios, there is a limit to how far the Army should go in sharing with contractors. This can be compared to giving a student the specific questions that will be on the test. Telling the student that there would be long division problems or questions about Civil War history is not the same as giving them the specific problems or the exact questions. This ensures that the student learns the math techniques and studies the history of the war instead of just memorizing a few answers. Likewise, we do not want a contractor to optimize a system for a specific test. Rather, he or she should be designing to meet the operational requirements.

This one is a bit more difficult. First of all, we agree that there is value in having contractors observe operational tests and even participate in discussions of what we are finding. After all, first-hand observation is often the best way to have the contractor understand the problems that are being uncovered (build the contractor knowledge). Furthermore, the contractor's insights can be invaluable in helping the testers and evaluators understand what they are observing.

Stoddart's suggestions have some problems. There are legal restrictions that he recognizes and accepts. The contractor should not be involved in conducting the test or be in a position to influence the outcome by interacting with the players. Even without the law, this makes a lot of sense.

So, how do we balance the desire to get contractors closer to the action while ensuring that they don't influence the test? This is where I must part from Stoddart's suggestion that the contractor be responsible for policing his or her people at the test site.

The contractor is not an unbiased observer at an operational test. Corporations, including defense contractors, have their first responsibility to their shareholders and boards of directors – not to the American soldier. They can be expected to act in the best interest of their company.

If the contractor is present at an Army operational test site, the tester is responsible to ensure that the law is observed and that the test remains independent and unencumbered. That means placing restrictions, and providing escorts for contractors. We routinely place the same restrictions on PMs visiting operational test sites. They are not given free and unrestricted access to operational tests. Providing an escort for observers on test sites places a burden on the test team and raises the cost of the test. We will pay this price; but, to make this situation workable, the numbers of observers must be limited.

Stoddart suggests that we should allow changes to system hardware and software during the test. Changes occur routinely during developmental testing before the initial operational test and evaluation. For example, the PM and contractor have had the Crusader system under almost constant testing for months. Changes are continuously being applied to the system.

In operational testing, this can present some real problems. Generally, the sample sizes for operational tests are smaller than desired because of test costs. Changing the system in the middle of the test can make the final sample even smaller, thus diminishing the validity of the test. Some system

and software changes are allowable, but only with approval from the Commander of the Operational Test Command, who has configuration control during the operational test. All changes must be thoroughly vetted through a configuration control board to ensure they do not jeopardize the test.

Stoddart suggested that providing feedback during combined developmental testing/operational testing (DT/OT) would allow the contractor to fix problems before the test arrives at the final operational test phase. In principle, I agree that this is a good idea. But, from a practical point of view, if significant problems are found during the test, the contractor is unlikely to be able to fix them in time to affect the test. As a result, we generally discourage combined DT/OT late in a program. Systems coming into an initial operational test and evaluation should provide the tester with the confidence that all technical problems are fixed and that the system is reliable. A contractor should not bring a system into the test arena, hoping it will do well.

The "veil of secrecy" that Stoddart refers to is part myth, part reality. I hope this response helps eliminate some of the myths. We all have to work harder on the reality part. The T&E community will work on opening the doors to contractors and passing on the knowledge learned in testing as quickly as possible. It appears that much of what the ICOTE wants is already available in the Army acquisition community. The operational testers and evaluators are critical to the team effort when fielding new equipment. They serve as a sanity check in the push to deliver the best equipment to the soldier, in the fastest time possible, and at the best cost.

Brian Barr
Technical Director
Army Test and Evaluation Command



Rumsfeld Creates Two New Management Councils

Secretary of Defense Donald Rumsfeld has formed two new internal management committees that will recommend ways for the Department to improve business practices and transform the U.S. military into a 21st Century fighting force.

The Senior Executive Committee will function as a business board of directors for the Department. It will be made up of Secretary Rumsfeld, Deputy Secretary of Defense Paul Wolfowitz, Under Secretary of Defense for Acquisition, Technology and Logistics Edward C. "Pete" Aldridge, and the Service secretaries. Secretary of the Army Thomas E. White, Secretary of the Navy Gordon R. England, and Secretary of the Air Force James G. Roche will use their unique qualifications as experienced business leaders to recommend changes to the Defense Department's business practices.

The second of the two management teams, the Business Initiative Council, will be comprised of the Service secretaries and headed by Aldridge. The Service secretaries will recommend good business practices and implement cost savings that could offset the funding requirements for personnel pro-



grams, infrastructure recapitalization, equipment modernization, and transformation initiatives. These Service-oriented initiatives will encourage the military branches to explore new money-saving programs with the added incentive of being able to use that money saved for other programs within the parameters of reprogramming laws.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news>.



New Director of DARPA Named

Secretary of Defense Donald H. Rumsfeld today announced the appointment of Anthony J. Tether as the Director of the Defense Advanced Research Projects Agency (DARPA). DARPA is the principal agency within the Department of Defense for research, development, and demonstration of concepts, devices, and systems that provide highly advanced military capabilities. As Director, Tether is responsible for management of the Agency's projects for high-payoff, innovative research and development.

Until his appointment as Director of DARPA, Tether held the position of Chief Executive Officer and President of The Sequoia Group, which he founded in 1996. The Sequoia Group provided program management and strategy development services to government and industry. From 1994 to 1996, Tether served as Chief Executive Officer for Dynamics Technology Inc. From 1992 to 1999, he was Vice President of Science Applications International Corporation's (SAIC) Advanced Technology Sector, and then Vice President and General Manager for Range Systems at SAIC. Prior to this, he spent six years as Vice President for Technology and Advanced Development at Ford Aerospace Corp., which was acquired by Loral Corporation during that period.

He has also held positions in the Department of Defense, serving as Director of DARPA's Strategic Technology Office in 1982

through 1986, and as Director of the National Intelligence Office in the Office of the Secretary of Defense from 1978 to 1982.

Prior to entering government service, he served as Executive Vice President of Systems Control Inc., from 1969 to 1978, where he applied estimation and control theory to military and commercial problems, with particular concentration on development and specification of algorithms to perform real-time resource allocation and control.

Tether has served on Army Science Boards and Defense Science Boards and on the Office of National Drug Control Policy Research and Development Committee. He is a member of the Institute of Electrical and Electronics Engineers (IEEE) and is listed in several *Who's Who* publications. In 1986, he was honored with both the National Intelligence Medal and the Department of Defense Civilian Meritorious Service Medal.

Tether earned his Bachelor of Electrical Engineering from Rensselaer Polytechnic Institute in 1964, and his Master of Science (1965) and Ph.D. (1969) in Electrical Engineering from Stanford University.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news>. More information on DARPA can be found at <http://www.darpa.mil>, or by contacting Jan Walker at 703-696-2404.



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Surfing the Net

DEPARTMENT OF DEFENSE

Under Secretary of Defense (Acquisition, Technology and Logistics) (USD(AT&L))

<http://www.acq.osd.mil/>
ACQWeb offers a library of USD(A&T) documents, a means to view streaming videos, and jump points to many other valuable sites.

Deputy Under Secretary of Defense (Acquisition Reform) (DUSD(AR))

<http://www.acq.osd.mil/ar>
AR news and events; reference library; DUSD(AR) organizational breakout; acquisition education and training policy and guidance.

DoD Inspector General

<http://www.dodig.osd.mil/pubs/index.html>
Search for audit and evaluation reports, Inspector General testimony, and planned and ongoing audit projects of interest to the acquisition community.

Deputy Director, Systems Engineering, USD(AT&L/IO/SE)

<http://www.acq.osd.mil/io/se/index.htm>
Systems engineering mission; Defense Acquisition Workforce Improvement Act information, training, and related sites; information on key areas of systems engineering responsibility.

Defense Acquisition Deskbook

<http://web1.deskbook.osd.mil>
Automated acquisition reference tool covering mandatory and discretionary practices.

Defense Acquisition University (DAU)

<http://www.dau.mil>
DAU Course Catalog, *Program Manager* magazine and *Acquisition Review Quarterly* journal; course schedule; policy documents; and training news from the Defense Acquisition Workforce.

Defense Acquisition University Virtual Campus

<https://dau1.fedworld.gov>
Take DAU courses online at your desk, at home, at your convenience!

Acquisition Reform Communications Center (ARCC)

<http://clc.dau.mil>
Acquisition Reform training opportunities and materials; announcements of upcoming Acquisition Reform events; and Issues Forum for discussion.

Army Acquisition Corps (AAC)

<http://dacm.rdaisa.army.mil>
News; policy; publications; personnel demo; contacts; training opportunities.

Army Acquisition

<http://acqnet.sarda.army.mil>
A-MART; documents library; training and business opportunities; past performance; paperless contracting; labor rates.

Navy Acquisition Reform

<http://www.acq-ref.navy.mil/>
Acquisition policy and guidance; World-class Practices; Acquisition Center of Excellence; training opportunities.

Navy Acquisition, Research and Development Information Center

<http://nardic.onr.navy.mil>
News and announcements; acronyms; publications and regulations; technical reports; "How to Do Business with the Navy"; much more!

Naval Sea Systems Command

<http://www.navsea.navy.mil/sea017/toc.htm>
Total Ownership Cost (TOC); documentation and policy; Reduction Plan; Implementation Timeline; TOC reporting templates; Frequently Asked Questions (FAQ).

Navy Acquisition and Business Management

<http://www.abm.rda.hq.navy.mil>
Policy documents; training opportunities; guides on areas such as risk management, acquisition environmental issues, past performance, and more; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

Space and Naval Warfare Systems Command (SPAWAR)

<https://e-commerce.spawar.navy.mil>
Your source for SPAWAR business opportunities, acquisition news, solicitations, and small business information.

Air Force (Acquisition)

<http://www.safaq.hq.af.mil/>
Policy; career development and training opportunities; reducing TOC; library; links.

Air Force Materiel Command (AFMC) Contracting Laboratory's Federal Acquisition Regulation (FAR) Site

<http://farsite.hill.af.mil/>
FAR search tool; *Commerce Business Daily* Announcements (CBDNet); *Federal Register*; Electronic Forms Library.

Defense Systems Management College (DSMC)

<http://www.dsmc.dau.mil>
DSMC educational products and services; course schedules; job opportunities.

Defense Advanced Research Projects Agency (DARPA)

<http://www.darpa.mil>
News releases; current solicitations; "Doing Business with DARPA."

Defense Information Systems Agency (DISA)

<http://www.disa.mil>
Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System; much more!

National Imagery and Mapping Agency

<http://www.nima.mil>
Imagery; maps and geodata; Freedom of Information Act resources; publications.

Defense Modeling and Simulation Office (DMSO)

<http://www.dmsomil>
DoD Modeling and Simulation Master Plan; document library; events; services.

Defense Technical Information Center (DTIC)

<http://www.dtic.mil/>
Technical reports; products and services; registration with DTIC; special programs; acronyms; DTIC FAQs.

Joint Electronic Commerce Program Office (JECPO)

<http://www.defenselink.mil/acq/ebusiness/>
Policy; newsletters; Central Contractor Registration; Assistance Centers; DoD Electronic Commerce Partners.

Open Systems Joint Task Force

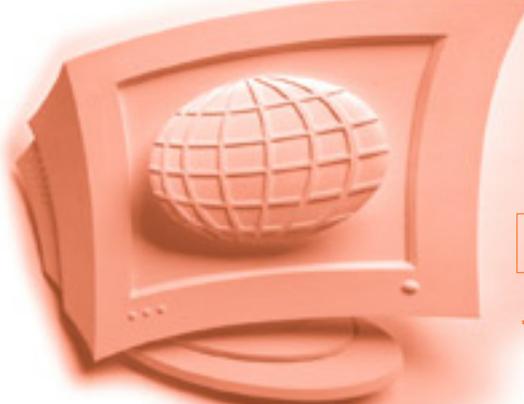
<http://www.acq.osd.mil/osjtf>
Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

Government Education and Training Network (GETN) (For Department of Defense Only)

<http://atn.afit.af.mil>
Schedule of distance learning opportunities.

Government-Industry Data Exchange Program (GIDEP)

<http://www.gidep.corona.navy.mil>
Federally funded co-op of government and industry participants that provides an electronic forum to exchange technical information essential during research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.



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Acquisition Reform Network (ARNET)

<http://www.arnet.gov/>

Virtual library; federal acquisition and procurement opportunities; best practices; electronic forums; business opportunities; acquisition training; Excluded Parties List.

Federal Acquisition Institute (FAI)

<http://www.faionline.com>

Virtual campus for learning opportunities as well as information access and performance support.

Federal Acquisition Jump Station

<http://nais.nasa.gov/fedproc/home.html>

Procurement and acquisition servers by contracting activity; CBDNet; Reference Library.

Federal Aviation Administration (FAA)

<http://www.asu.faa.gov>

Online policy and guidance for all aspects of the acquisition process.

General Accounting Office (GAO)

<http://www.gao.gov>

Access to GAO reports, policy and guidance, and FAQs.

General Services Administration (GSA)

<http://www.gsa.gov>

Online shopping for commercial items to support government interests.

Library of Congress

<http://www.loc.gov>

Research services; Congress at Work; Copyright Office; FAQs.

National Technical Information Service (NTIS)

<http://chaos.fedworld.gov/onow/>

Online service for purchasing technical reports, computer products, videotapes, audiocassettes, and more!

Small Business Administration (SBA)

<http://www.SBAonline.SBA.gov>

Communications network for small businesses.

U.S. Coast Guard

<http://www.uscg.mil>

News and current events; services; points of contact; FAQs.

TOPICAL LISTINGS

MANPRINT (Manpower and Personnel Integration)

<http://www.MANPRINT.army.mil>

Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; as well as briefings on the MANPRINT program.

DoD Specifications and Standards Home Page

<http://www.dsp.dla.mil>

All about DoD standardization; key Points of Contact; FAQs; Military Specifications and Standards Reform; newsletters; training; nongovernment standards; links to related sites.

Joint Advanced Distributed Simulation (JADS) Joint Test Force

<http://www.jads.abq.com>

JADS is a one-stop shop for complete information on distributed simulation and its applicability to test and evaluation and acquisition.

Risk Management

http://www.acq.osd.mil/io/se/risk_management/index.htm

Risk policies and procedures; risk tools and products; events and ongoing efforts; related papers, speeches, publications, and Web sites.

Earned Value Management

<http://www.acq.osd.mil/pm>

Implementation of Earned Value Management; latest policy changes; standards; international developments; active noteboard.

Fedworld Information

<http://www.fedworld.gov>

Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

GSA Federal Supply Service

<http://pub.fss.gsa.gov>

The No. 1 resource for the latest services and products industry has to offer.

Commerce Business Daily

<http://www.govcon.com/>

Access to current and back issues with search capabilities; business opportunities; interactive yellow pages.

INDUSTRY AND PROFESSIONAL ORGANIZATIONS

DSMC Alumni Association

<http://www.dsmcaa.org>

Acquisition tools and resources; government and related links; career opportunities; member forums.

Electronic Industries Alliance (EIA)

<http://www.eia.org>

Government Relations Department; includes links to issue councils; market research assistance.

National Contract Management Association (NCMA)

<http://www.ncmahq.org>

"What's New in Contracting?"; educational products catalog; career center.

National Defense Industrial Association (NDIA)

<http://www.ndia.org>

Association news; events; government policy; *National Defense* magazine.

International Society of Logistics

<http://www.sole.org/>

Online desk references that link to logistics problem-solving advice; Certified Professional Logician certification.

Computer Assisted Technology Transfer (CATT) Program

<http://catt.bus.okstate.edu>

Collaborative effort between government, industry, and academia. Learn about CATT and how to participate.

Software Program Managers Network

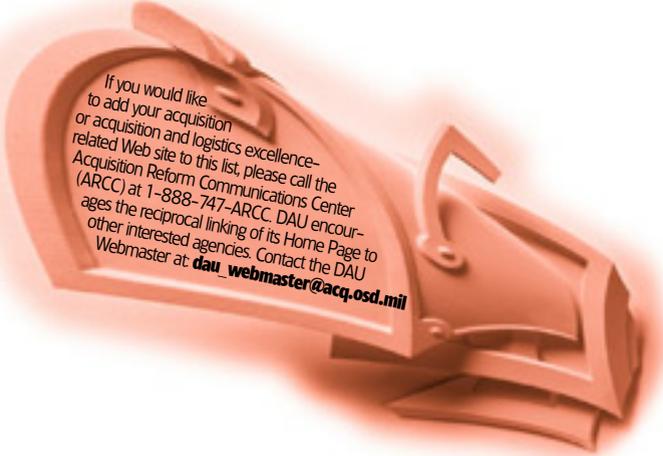
<http://www.spmn.com>

Site supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

Association of Old Crows (AOC)

<http://www.crows.org>

Association news; conventions, conferences and courses; *Journal of Electronic Defense* magazine.



If you would like to add your acquisition or acquisition and logistics excellence-related Web site to this list, please call the Acquisition Reform Communications Center (ARCC) at 1-888-747-ARCC. DAU encourages the reciprocal linking of its Home Page to other interested agencies. Contact the DAU Webmaster at dau_webmaster@acq.osd.mil

Status of AT&L Community Presidential Appointees

Thomas P. Christie

The President intends to nominate **Thomas P. Christie** to be Director of Operational Test and Evaluation at the Department of Defense. He is currently the Director of the Operational Evaluation Division at the Institute for Defense Analysis. From 1986 to 1989 he was the Director of Program Integration in the Office of the Under Secretary of Defense for Acquisition. From 1977 to 1986, Christie served in the Office of the Assistant Secretary of Defense for Program Analysis and Evaluation as Deputy Assistant Secretary for Operational Test and Evaluation and as Deputy Assistant Secretary for General Purpose Programs. He is a graduate of Spring Hill College and received a master's degree from New York University. *On May 24, 2001, Christie's nomination was sent to the Senate for confirmation.*

Diane K. Morales

The President intends to nominate **Diane K. Morales** to be Deputy Under Secretary of Defense for Logistics and Materiel Readiness. She is currently President of DMS, Inc., in Alexandria, Va., and served as the Deputy Assistant Secretary of Defense for Logistics from 1990 to 1993. From 1988 to 1990 she was President of Morales Consulting Service Company, a defense consulting firm. She served at the Office of Management and Budget from 1985 to 1986 and was a member of the Civil Aeronautics Board from 1983 to 1985. Originally from Texas, she is a graduate of the University of Texas. *On June 5, 2001, Morales' nomination was sent to the Senate for confirmation.*

Ronald M. Segal

On June 7, 2001, The President announced his intent to nominate **Ronald M. Segal** to be Director of Defense Research and Engineering. He has served since 1996 as Dean of the College of Engineering and Applied Science at the University of Colorado at Colorado Springs, and has served as an Assistant Professor, Associate Professor, and Professor at the University since 1982. He is a brigadier general with the U.S. Air Force, and from 1991 to 1996 he was an astronaut, participating in two Space Shuttle missions. Segal is a graduate of the U.S. Air Force Academy, and also received a master's from Ohio State University and a Ph.D. from the University of Colorado.

George G. Williams

On May 30, 2001, The President announced his intent to nominate **George G. Williams** to be Assistant Secretary of the Army for Acquisition, Logistics and Technology. He is presently the President of COLSA Corporation in Huntsville, Ala. He was appointed to the Senior Executive Service in 1988 by the Secretary of the Army, served as Deputy Program Ex-

ecutive Officer (PEO) for Fire Support at U.S. Missile Command, and was then appointed Program Executive Officer for Fire Support in July 1991. He then served as Program Executive Officer for Tactical Missiles until his retirement from federal service in 1996. He has earned numerous awards, including the Department of Defense Value Engineering PEO of the Year Award, and was the namesake and recipient of the Department of the Army George Williams Excellence in Acquisition Management Civil Service Meritorious Service Medal. Williams is a graduate of North Carolina State University.

Michael W. Wynne

The President intends to nominate **Michael W. Wynne** to be Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics. He is presently the Chairman and CEO of the Ixata Group based in San Diego, Calif. From 1997 to 1999, Wynne was Senior Vice President for International Planning and Business Development for General Dynamics, and was Vice President and General Manager of Space Launch Systems for Lockheed Martin Astronautics from 1994 to 1997. Before joining Lockheed Martin, he had served with General Dynamics since 1975, at General Dynamics Fort Worth Division, General Dynamics Corporate Headquarters, General Dynamics Land Systems, and General Dynamics Space Division. Originally from Florida, he is a veteran of the U.S. Air Force and a graduate of the U.S. Military Academy, the Air Force Institute of Technology, and received an M.B.A. from the University of Colorado. *On June 13, 2001, Wynne's nomination was sent to the Senate for confirmation.*

John J. Young

The President intends to nominate **John J. Young** to be Assistant Secretary of the Navy for Research, Development and Acquisition. He has been with the U.S. Senate Appropriations Subcommittee on Defense since 1991, first as a Sandia National Labs Congressional Fellow from 1991 to 1993, and then as a Professional Staff Member since 1993. From 1988 to 1993, he was a member of the Technical Staff of Sandia National Labs, and from 1987 to 1988 he was a member of the Technical Staff at Rockwell International. Young is a graduate of Georgia Institute of Technology and received a master's in Aeronautics and Astronautics from Stanford University. *On June 13, 2001, Young's nomination was sent to the Senate for confirmation.*

Editor's Note: Also see *From the White House*, p. 86 of this issue, which announces the nomination of **Marvin R. Sambur** to be Assistant Secretary of the Air Force for Acquisition, Research and Development.



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 - <http://www.acq.osd.mil/icp/armcoop.html> 
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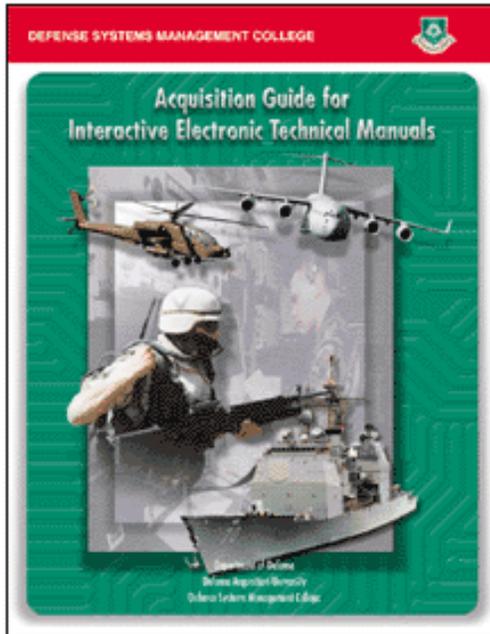


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